



This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

Usage guidelines

Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

- + *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.
- + *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.
- + *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.
- + *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

About Google Book Search

Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at <http://books.google.com/>



Stanford University Libraries

3 6105 121 155 134

LIBRARY

LIBRARY

LIBRARY

LIBRARY

LIBRARY

LIBRARY

LIBRARY

LIBRARY

LIBRARY

LIBRARY

LIBRARY

LIBRARY

LIBRARY

LIBRARY

LIBRARY

LIBRARY

LIBRARY

LIBRARY

LIBRARY

LIBRARY

LIBRARY

LIBRARY

LIBRARY

LIBRARY

LIBRARY

LIBRARY

LIBRARY

LIBRARY

LIBRARY

LIBRARY

LIBRARY

LIBRARY

LIBRARY

LIBRARY

LIBRARY

LIBRARY

LIBRARY

LIBRARY

LIBRARY

LIBRARY

LIBRARY

LIBRARY

LIBRARY

LIBRARY

LIBRARY

LIBRARY

LIBRARY



By Appleton & Company.

George Dewey.

NEW YORK
APPLETON AND COMPANY
230 NASSAU AVENUE
1890



THE
ANNUAL CYCLOPÆDIA

AND REGISTER OF IMPORTANT EVENTS
OF THE YEAR

1898

EMBRACING POLITICAL, MILITARY, AND ECCLESIASTICAL AFFAIRS;
PUBLIC DOCUMENTS; BIOGRAPHY, STATISTICS, COMMERCE,
FINANCE, LITERATURE, SCIENCE, AGRICULTURE,
AND MECHANICAL INDUSTRY

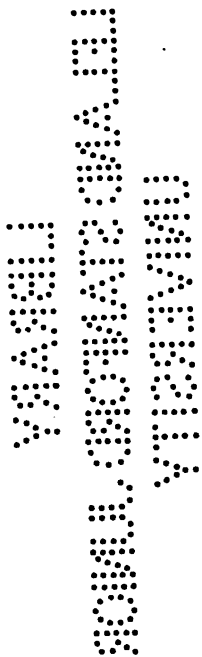


NEW YORK
D. APPLETON AND COMPANY
72 FIFTH AVENUE
1899

550

AES
A72
1898

COPYRIGHT, 1899,
By D. APPLETON AND COMPANY.



PREFACE.

THE most important event of 1898, not to our country alone, but to all mankind, was the short but decisive contest that destroyed the naval power of an ancient and famous kingdom, banished the last vestige of Spanish rule from the western hemisphere, thus closing the four-century drama that began with Cortez and ends with Cervera, added to the American Union territory equal to several large States, and opened the eyes of Europe to the fact that the western republic might at any time successfully assert itself as a world power of the first rank. A succinct account of this remarkable war, with illustrations, will be found in the article "United States." It is to be expected that, as in the case of all wars, some points will be hotly disputed, and, perhaps, never settled; but we believe that ours will be found to be as accurate and impartial an account as can be written while the occurrences are so new. To it we have added a statement, compiled with considerable labor and expense, showing the progress and participation of every regiment, battery, and vessel, all being arranged for ready reference in alphabetical and numerical order. In connection with this subject the reader will be interested also in the articles on "The Philippines," "The Ladrões," and "Puerto Rico." And he will also find biographical sketches, with portraits, of the more prominent military and naval commanders.

Next in importance comes the peaceful acquisition by the United States of the Hawaiian Islands, which are not only "the paradise of the Pacific," but the great strategic point in that mighty ocean which is rapidly becoming a mercantile rival of the Atlantic. Our colored map of this group is given in the volume for 1892, and that of Cuba in 1896, while colored maps of Puerto Rico and the Philippines appear in this volume.

World's fairs—now called "expositions"—which were hailed as a remarkable invention less than half a century ago, are becoming, if not every-day, almost every-year occurrences. This year we record, with illustrations, that which was held in Omaha, Neb.

Our regular articles on "Astronomy," "Chemistry," "Metallurgy," "Mineralogy," "Physics," and "Physiology" show what was done in the progressive sciences. But there were two scientific triumphs in 1898 of so great importance as to demand separate and illustrated articles; these are "Liquefied Air" and "Wireless Telegraphy." There is also an article on "Motor Carriages," which are believed to be the next thing we are to have for ordinary travel. Other advances in material improvement—less noticeable, but perhaps hardly less important—are set forth in the articles on "Lighthouses," "Refrigerating and Ice-Making," and "Steel Buildings."

In the moral and social world there is progress also. One remarkable phase of this is set forth in our article on "Social Settlements"; while the showing that we make every year under the title of "Gifts and Bequests" proves the existence of a wonderful spirit of munificence toward education and charity. In 1893 the aggregate of these gifts was \$29,000,000; in 1894 it was \$32,000,000; in 1895 it was almost \$33,000,000; in 1896 it was \$27,000,000; in 1897 it was \$45,000,000; and in 1898

it was \$38,000,000. The reader who wishes to pursue this subject further should look also at the record of mission work in the articles on the great religious denominations.

• The articles "Financial Review of 1898" and "Finances of the United States" will give a clear idea of the mercantile and monetary movements of the year; and in connection with these the reader should look at the tabulated trade summaries in the articles on the more important countries.

The series of portraits of new governors in the articles on States of the Union is continued. It is not complete, for the reason that one was unwilling to have his portrait published, and one or two others failed to respond at all.

The literatures of the world—American, British, and Continental—are presented in the usual summaries, which give a rapid survey of the whole field. And the "Disasters" and "Events" of the year are treated in brief chronological paragraphs. These articles are intended as indicators rather than an attempt to give full information, which would be impossible in a volume like this.

Among the eminent dead of the year the names of the two great European statesmen—Bismarck and Gladstone—stand pre-eminent. On each of these there is a special article, written by a competent hand, with a portrait in photogravure. The soldiers that died in this year included Gens. Augur, Buell, and Rosecrans, who won their fame in the civil war; the two Caprons, victims of the Spanish war; and Calixto Garcia. Among the naval officers that passed away were Daniel Ammen, Worth Bagley, Daniel L. Braine, Charles V. Gridley, Milton Haxtun, and William A. Kirkland. The lawyers and statesmen included Thomas F. Bayard, Thomas M. Cooley, Robert M. McLane, Justin S. Morrill, Don M. Romero, William H. Trescott, and Sir George Grey. The dramatic profession lost some who were once universal favorites but had retired, and some who were still on the boards, including William Barry, Charles W. Couldock, Fanny Davenport, Virginia Dreher, Helen Faucit, Clara Fisher, E. J. Henley, Thomas W. Keene, Margaret Mather, and William J. Scanlan. The list of authors who closed their careers in 1898 includes two young Americans, each of whom produced a book of phenomenal popularity—Edward Bellamy and Edward N. Westcott. The other names on the literary death roll include William Black, Mary Cowden Clarke, Madeleine Vinton Dahlgren, Charles L. Dodgson, Georg Moritz Ebers, Theodore S. Fay, Harold Frederic, Blanche Willis Howard, Richard Malcolm Johnston, George Parsons Lathrop, Mrs. E. Lynn Linton, James Payn, Maria Louise Pool, Frederick Tennyson, and David A. Wells. The scientists lost James Hall, Joseph A. Lintner, William A. Rogers, and George E. Waring; the journalists, Isaac H. Bromley, Frederick W. Conrad, William T. Giles, and Charles L. MacArthur; the inventors, Sir Henry Bessemer, Wilson Eddy, and A. C. Goodell; the artists, Burne-Jones, Philip H. Calderon, Puvis de Chavannes, John A. Fraser, and Anton Seidl. Of the eminent persons in the necrology who could not be classed with any of the foregoing were the reformers Matilda Joselyn Gage, Parker Pillsbury, and Frances E. Willard; the impostors, Arthur Orton (Tichborne claimant) and John E. W. Keely; Calvin Fairbank, the abolitionist; H. C. L. Dorsey, known as "the prisoner's friend"; Gardner Q. Colton, one of the claimants to the discovery of anæsthetics; A. Oakley Hall, of Tweed-ring fame; and Adolph Sutro, the mining engineer. Sketches of all these and scores of others—many of them accompanied with portraits—will be found under the head of "Obituaries."

The notable illustrations not already mentioned include colored maps of Asia and Egypt and several full-page engravings.

An index to the three volumes of the series closes the book.

CONTRIBUTORS.

Among the Contributors to this Volume of the "Annual Cyclopædia" are the following:

- Oscar Fay Adams,**
Author of "A Dictionary of American Authors," etc.
COOLEY, THOMAS MCINTYRE,
DODGSON, CHARLES LUTWIDGE,
EBERS, GEORG MORITZ,
JOHNSTON, RICHARD MALCOLM,
PAYN, JAMES,
PERRY, WILLIAM STEVENS,
and other articles.
- Francis Bellamy.**
BELLAMY, EDWARD.
- Marcus Benjamin, Ph. D.,**
Editor of United States National Museum.
ASSOCIATIONS FOR THE ADVANCEMENT OF SCIENCE,
HALL, JAMES,
NATIONAL ACADEMY OF SCIENCES,
NEW YORK STATE,
ROGERS, WILLIAM AUGUSTUS,
and other articles.
- J. H. A. Bone,**
Of the "Cleveland Plain-Dealer."
OHIO.
- John Henry Boner,**
Of the "Standard Dictionary" staff.
ALABAMA.
ARIZONA,
IDAHO,
NEW MEXICO,
NORTH CAROLINA,
MISSISSIPPI,
MISSOURI,
and other articles.
- Arthur E. Bostwick, Ph. D.,**
Librarian of the Brooklyn Library.
LIQUEFIED AIR,
PHYSICS,
TELEGRAPHY, WIRELESS.
- Thomas Campbell-Copeland,**
Author of the "American Colonial Handbook."
SAMPSON, WILLIAM THOMAS,
SHAFTER, WILLIAM RUFUS,
UNITED STATES MILITARY RECORD.
- Mrs. Helen C. Candee.**
SETTLEMENTS, SOCIAL.
- James P. Carey,**
Formerly Financial Editor of the "Journal of Commerce."
FINANCIAL REVIEW OF 1898.
- John Demison Champlin,**
Editor of "Cyclopedia of Painters and Paintings."
FINE ARTS IN 1898.
- Hon. Benjamin F. Clayton,**
Ex-President of the Farmers' Congress.
FARMERS' CONGRESS.
- Charles Henry Cochrane,**
Author of "The Wonders of Modern Mechanism."
LIGHTHOUSES,
REFRIGERATING AND ICE-MAKING,
STEEL BUILDINGS.
- Mrs. Bessie Nicholls Croffut.**
LITERATURE, AMERICAN, IN 1898,
LITERATURE, BRITISH, IN 1898,
RESERVATIONS, INDIAN.
- Mrs. Fredericka B. Gilchrist.**
PROTESTANT EPISCOPAL CHURCH.
- Rev. William Elliot Griffis, D. D.,**
Formerly Professor of Physics in the University of Tokio.
JAPAN,
KOREA.
- George J. Hagar,**
Associate Editor of the "Columbian Cyclopædia."
GIFTS AND BEQUESTS,
OBITUARIES, AMERICAN.
- Rev. Moses Harvey,**
Author of "Text-book of Newfoundland History."
NEWFOUNDLAND.
- Elwood Haynes.**
GAS, NATURAL.
- J. Castell Hopkins,**
Author of "Encyclopædia of Canada."
BRITISH COLUMBIA,
CANADA, DOMINION OF,
MANITOBA,
NEW BRUNSWICK,
ONTARIO,
QUEBEC,
YUKON DISTRICT,
and other Canadian articles.
- Frank Huntington,**
Of the "Standard Dictionary" staff.
AFGHANISTAN,
ARGENTINE REPUBLIC,
AUSTRIA-HUNGARY,
BELGIUM,
BRAZIL,
CAPE COLONY,
DENMARK,
EGYPT,
FRANCE,
GERMANY,
HAWAII,
INDIA,
PHILIPPINE ISLANDS,
TURKEY,
and other articles.
- W. Alleyne Ireland,**
Author of "Demerara."
WEST INDIES.

Abram S. Isaacs, Ph. D.,
Editor of the "Jewish Messenger."
JEWS.

Miss Florence K. Johnson.
LADRONES, THE,
NEW HAMPSHIRE,
VERMONT,
and other articles.

William H. Larrabee, LL. D.
ANGELICAN CHURCHES,
ARCHÆOLOGY,
CHRISTIAN ENDEAVOR,
CONGREGATIONALISTS,
GERMAN EVANGELICAL CHURCH,
METHODISTS,
MORAVIANS,
PRESBYTERIANS,
REFORMED CHURCHES,
UNITARIANS,
and other articles.

Mrs. Rose Hawthorne Lathrop,
Author of "Some Memories of Hawthorne."
LATHROP, GEORGE PARSONS.

John Malone,
Actor and author.
COULDOCK, CHARLES WALTER,
COWDEN-CLARKE, MARY,
DAVENPORT, FANNY,
FAUCIT, HELEN,
FISHER, CLARA,
ROOSEVELT, BLANCHE,
SEIDL, ANTON,
and other articles.

Frederic G. Mather,
Journalist.
FAIRBANK, CALVIN,
PACKARD, SILAS SADLER,
SANTIAGO DE CUBA, SOCIETY OF THE ARMY OF,
and other articles.

G. Le Grys Norgate,
English journalist and author.
KITCHENER, SIR HORATIO HERBERT.

Col. Charles Ledyard Norton,
Author of "Midshipman Jack."
DEWEY, GEORGE,
and other articles.

Hugh J. O'Brien,
Journalist.
ROMAN CATHOLIC CHURCH.

Rev. Solomon E. Ochsenford, D. D.
LUTHERANS,
MUELLER, LOUIS,
RICHARDS, MATTHIAS HENRY,
and other articles.

Mrs. Evangeline M. O'Connor,
Author of "Index to Shakespeare."
ARKANSAS,
CALIFORNIA,
DELAWARE,
FLORIDA,
KANSAS,
MASSACHUSETTS,
MINNESOTA,
NEBRASKA,
OREGON,
PENNSYLVANIA,
TENNESSEE,
and other articles.

Mrs. Emma F. Roberts,
Of the "Standard Dictionary" staff.
MAINE,
ILLINOIS,
NORTH DAKOTA,
UTAH.

Lewis Swift, LL. D.,
Formerly Director of Lowe Observatory.
ASTRONOMICAL PROGRESS IN 1898.

R. Tabor Thomas,
Of the Bristol, England, "Press."
GLADSTONE, WILLIAM EWART.

James B. T. Tupper,
Formerly of Internal Revenue Office.
COURT DECISIONS (in article UNITED STATES).

J. Kendrick Upton,
Formerly Assistant Secretary of the Treasury.
UNITED STATES, FINANCES OF THE.

Frank Weitenkamp,
Of the Astor Library.
LITERATURE, CONTINENTAL,
LITERATURE, LATIN-AMERICAN.

Vincent J. Youmans, M. D.,
WELLS, DAVID AMES.

William J. Youmans, M. D.,
Editor of "Appletons' Popular Science Monthly."
CHEMISTRY,
METALLURGY,
METEOROLOGY,
PHYSIOLOGY.

ILLUSTRATIONS.

FULL-PAGE PORTRAITS.

		FACING PAGE
GEORGE DEWEY	<i>Photogravure</i>	<i>Frontispiece</i>
PRINCE BISMARCK	<i>Photogravure</i>	82
WILLIAM EWART GLADSTONE	<i>Photogravure</i>	806

PORTRAITS IN THE TEXT.

	PAGE		PAGE
CHRISTOPHER COLON AUGUR	521	ROBERT MILLIGAN McLANE	555
WORTH BAGLEY	522	ELWELL STEPHEN OTIS	616
CASSIUS M. BARNES	608	LLEWELLYN POWERS	415
THOMAS FRANCIS BAYARD	523	WILLIAM A. POYNTER	472
EDWARD BELLAMY	523	FREDERICK W. PUTNAM	24
WILLIAM BLACK	584	CHARLES TODD QUINTARD	562
DON CARLOS BUELL	527	WHITELAW REID	<i>facing</i> 772
ALLEN D. CANDLER	288	DE FOREST RICHARDS	839
SIR WILLIAM CROOKES	35	FRANK WEST ROLLINS	483
FANNY LILY GIPSY DAVENPORT	535	DON MATIAS ROMERO	567
CUSHMAN K. DAVIS	<i>facing</i> 772	THEODORE ROOSEVELT	492
WILLIAM R. DAY	<i>facing</i> 772	WILLIAM STARKE ROSECRANS	568
GEORG MORITZ EBERS	590	WILLIAM THOMAS SAMPSON	690
CALVIN FAIRBANK	539	JOSEPH DRAPER SAYLES	722
FREDERICK B. FANCHER	513	WINFIELD SCOTT SCHLEY	692
WILLIAM PIERCE FRYE	<i>facing</i> 772	WILLIAM RUFUS SHAFTER	697
HENRY T. GAGE	92	LESLIE M. SHAW	338
THEODORE THURSTON GEER	613	CHARLES EMORY SMITH	730
GEORGE GRAY	<i>facing</i> 772	EDWARD C. SMITH	820
JAMES HALL	545	WILLIAM E. STANLEY	351
JOHN HAY	729	WILLIAM A. STONE	618
ETHAN ALLEN HITCHCOCK	730	JOHN R. TANNER	325
JOSEPH F. JOHNSTON	3	CHARLES S. THOMAS	135
DANIEL W. JONES	21	FOSTER M. VOORHEES	487
SIR HORATIO HERBERT KITCHENER	358	GEORGE EDWIN WARING	576
ARCHIBALD LIVERSIDGE	44	DAVID AMES WELLS	577
GEORGE E. LOUNSBURY	210	EDWARD NOYES WESTCOTT	579
LLOYD LOWNDES	420	FRANCES ELIZABETH WILLARD	580

FULL-PAGE ILLUSTRATIONS.

COLORED PLATES—	FACING PAGE
MAP OF ASIA	124
MAP OF EGYPT	234
MAP OF THE PHILIPPINE ISLANDS	626
MAP OF PUERTO RICO	648

	FACING PAGE
PORT ELIZABETH, CAPE COLONY	103
THE HARBOR OF VALPARAISO	121
THE GOVERNMENT BUILDING, OMAHA EXPOSITION	249
THE INDIAN ENCAMPMENT, OMAHA EXPOSITION	254
MOUNT MAYON, PHILIPPINE ISLANDS	624
SAN JUAN, PUERTO RICO.	646
PORTRAITS OF THE AMERICAN PEACE COMMISSIONERS	772
THE BATTLE SHIP "OREGON"	805

ILLUSTRATIONS IN THE TEXT.

	PAGE		PAGE
SITE OF CRANNOG ON THE CLYDE	13	HAWARDEN CASTLE	304
PREHISTORIC IMPLEMENTS	14	VILLAGE OF SAYPAN, LADRONE ISLANDS	361
PREHISTORIC LADDER	14	A STEEL LIGHTHOUSE	362
PREHISTORIC CANOE	14	DEWAR'S APPARATUS	363
MUSEUM IN LA PLATA	19	FREEZING A RUBBER BALL	364
PALACE OF CONGRESS, LA PAZ, BOLIVIA	85	EXPLODING A SPONGE	364
PORT OF PERNAMBUCO, BRAZIL	86	BURNING STEEL IN LIQUID OXYGEN	365
GOVERNMENT BUILDING, VICTORIA	88	ANTANANARIVO, MADAGASCAR	414
CHINESE TEMPLE	123	NEW MEXICO'S CAPITOL	490
FISHING AT STANLEY FALLS	138	A STREET IN ILOILO	626
STANLEY POOL	139	DIAGRAM OF PRISMS	631
HOUSE IN WHICH ADMIRAL DEWEY WAS BORN	221	A CANTILEVER TRUSS	708
A ROYAL RESIDENCE IN UGANDA	231	WIRELESS TELEGRAPHY (four illustrations) 714-716	
A NATIVE OF SOMALILAND	232	THE "MAINE" PASSING MORRO CASTLE, HA-	
QUITO, ECUADOR	234	VANA	738
THE NILE AT KHARTOUM	238	MORRO CASTLE, SANTIAGO	755
DIAGRAM OF THE OMAHA EXPOSITION	250	CUBAN TROOPS MARCHING INTO SIBONEY	759
THE GRAND CANAL AT NIGHT, OMAHA EXPO-		EL CANEY AFTER THE BATTLE	761
SITION	252	WRECK OF THE "CRISTOBAL COLON"	763
EXHIBITION OF LIFE-SAVING SERVICE	256	WRECK OF THE "OQUENDO"	764
PRISON OF CAPT. DREYFUS	276	A HOSPITAL TENT	769
GEOLOGICAL LOCATION OF GAS SUPPLY	287	UNITED STATES POSSESSIONS (map).	773

THE ANNUAL CYCLOPÆDIA.

A

ABYSSINIA, an empire in eastern Africa, embracing the kingdoms of Tigre, Amhara, and Shoa, with Gojam, Lasta, the Galla and Kaffa countries, and other dependencies. The Emperor, bearing the title Negus Negusti (King of Kings), is Menelek II, who, after the death of Johannes II. in 1889, overcame the rival claimants with the aid of weapons furnished by the Italians, with whom he made a treaty on May 2 of that year, which was confirmed in the following October in a convention concluded by his plenipotentiary in Italy. The Italian Government proclaimed a protectorate over the whole Ethiopian or Abyssinian Empire by virtue of this treaty, although Menelek protested that the Amharic text recorded simply a treaty of alliance and mutual protection between independent sovereigns. The governments of Germany and Great Britain recognized the protectorate and conceded an Italian sphere of influence, embracing all of Abyssinia and adjacent parts of Somaliland and the Soudan, a total area of 648,000 square miles. The line of demarcation separating the British and Italian spheres, as fixed in the agreements of 1891 and 1894, follows the Juba river up to 6° of north latitude, and then that parallel westward to 35° of east longitude, whence it runs northward to the Blue Nile. In consequence of the defeat at Adua on March 1, 1896, Italy renounced the protectorate over Abyssinia and evacuated the Kingdom of Tigre which had been occupied in 1895. In the treaty of peace finally concluded at Adis Abeba on Oct. 26, 1896, Abyssinia was recognized as an independent power and the rivers Mareb, Belesa, and Muna were declared the southernmost boundaries of the Italian possessions.

The area of Abyssinia, with Gallaland, is about 150,000 square miles and the population 3,500,000. In Somaliland the Negus claims the whole interior back of the coast strip of 180 miles reserved to Italy by the treaty of Adis Abeba as far south as the border of British East Africa, comprising an area of 100,000 square miles.

The Abyssinians are a mixed race, in which Arab, Jewish, and negro types are grafted on the original north African or Berber stock. They have been Christians since the fourth century, belonging to the Alexandrian Church. Their religious rites include many Jewish ceremonies. The *abuna*, or ecclesiastic chief, is a Copt appointed by the Alexandrian patriarch. The monks and priests are the only instructors, teaching a part of the children grammar and poetry, religious chants and Bible texts. The system of government is feudal. The chief industry is raising cattle, sheep, and goats. Cotton, coffee, dates, and grapes grow wild, and there are extensive forests of valuable timber. Bar-

ley, dhurra, wheat, and sugar cane are cultivated, but agriculture is not much practiced. Besides hides and skins the chief exports are wax, coffee, and civet, also gold and ivory, on both of which the Negus receives a large royalty. The imports are cotton goods of American, British, and Indian manufacture, Turkey red, and French cutlery and glass. The Maria Theresa dollar, which has been struck in Austria for the Abyssinian trade since the last century, is being supplanted by a coin bearing the image of Menelek, having the same nominal value, though containing a fifth less silver.

Count Nicholas Leontieff, who went to Abyssinia in 1893 on a Russian political mission, veiled as a scientific expedition, and afterward obtained a cession of an immense tract of country, called the Equatorial Province, lying southwest of the Emperor Menelek's dominions and extending within two degrees of the equator, organized with Prince Henri d'Orleans a chartered company for the purpose of organizing the government of this country in the name of the Emperor of Ethiopia. The territory embraces a great part of the Italian sphere, a great part of the sphere claimed by the British East African protectorate, and the banks of the upper Nile in the Anglo-Egyptian sphere. Large quantities of arms were imported into Abyssinia by the French and Russians, whose influence was so powerful at Menelek's court that the British Government, on the eve of the expedition for the reconquest of the Egyptian Soudan, sent James Rennell Rodd as a special envoy to prevent a possible alliance between the Abyssinians and the dervishes. The treaty concluded by him with Menelek, at Adis Abeba, on May 14, 1897, provided for the freedom of the subjects of both countries to come and go and engage in commerce, while forbidding armed bands to cross the frontier without authorization. The caravan route between Zeyla and Harrar, by way of Gildessa, was declared free to the commerce of both nations. Material destined for the service of the Ethiopian state was permitted to be imported through Zeyla free of duty, and arms and ammunition for the Emperor's army to have free transit, subject to the conditions of the Brussels act of 1890. Menelek engaged himself to do all in his power to prevent the passage through his dominions of munitions of war for the Mahdists, whom he declared to be the enemies of his empire. The boundary between Abyssinia and British Somaliland was settled by Rennell Rodd with Ras Makonen at Harrar. Starting from the seashore opposite the wells of Hadou, it follows the caravan road by Abbassouen to Mount Samadou, passes through the summits of Saw and Egu to Moga Medir, thence to Eylinta Kaddo and Arran Arrhe

and onward to 44° of east longitude and 9° of north latitude, then in a direct line to 47° of east longitude and 8° of north latitude, and after that follows the line fixed in the Anglo-Italian convention of May 5, 1894, down to the sea. This boundary conceded and transferred to Abyssinia about 15,000 square miles of British Somaliland, a district in which the British had not been able to protect the Somalis from the raids of the Abyssinians, who carried their conquests even beyond the new frontier and were accustomed to baptize by force the Mohammedan inhabitants. In the negotiations it was stipulated that the Lion of the Tribe of Judah, the title given to Menelek, shall treat the people well and provide them with an orderly government. In return for the cession of the interior of British Somaliland, cutting off that protectorate from the British East African sphere, Menelek relinquished to Great Britain his claim to a strip of table-land about 4,000 square miles in extent on the south-eastern border of the protectorate. The rectification of the frontier reduces the size of the elephant reserve, recently constituted by the British authorities. Concerning the Gallas in the south, who have been forced to pay tribute to the Abyssinians, though within the borders of British East Africa, the treaty says nothing, nor concerning the rights assumed by Menelek at the instigation of the French and Russians to the equatorial provinces of Egypt as far as the shore of Lake Rudolf and the Nile region.

The French had ceded to Abyssinia the greater part of the *Hinterland* of their colony of Obok. They had written engagements with Menelek, the nature of which was not made public. The expedition of the Marquis de Bonchamps that was advancing across the Anglo-Egyptian sphere to the upper Nile to join hands with the French expeditions that were already in the former Egyptian province of the Bahr el Ghazal, consisted of an Abyssinian force led by Frenchmen. Russian missionaries, teachers, and physicians went to Abyssinia, and the Russian Red Cross Society organized a hospital in Menelek's capital. Count Leontieff returned to Russia, and in the early part of 1898 arranged for the establishment of Abyssinian commercial agencies at St. Petersburg, Moscow, and other cities, and for the introduction of all kinds of Russian goods in Abyssinia, in the hope of creating a direct trade between the two countries. He also shipped military stores to the Negus, some of which were seized by the British customs authorities at Zeyla. Then he joined Prince Henri d'Orleans at Paris, and the two proceeded to Adis Abeba, taking a force of Cossacks and Senegalese, with which they set out for the equatorial provinces and the Nile. The difficulties encountered on the way, if not the obstacles created by Lieut. Harrington, the British agent who was appointed to the court of the Emperor Menelek, compelled them to renounce this expedition. That of the Marquis de Bonchamps likewise came to naught.

The Marquis de Bonchamps gave up his attempt to join the Marchand mission after passing through the country of the Yanbos and reaching the White Nile. Of his force of 140 men 20 were killed and as many wounded. He made many treaties in the name of the Emperor Menelek with native chiefs whom he won away from British influence, but was finally obliged to turn back, as his men were exhausted and he had no boats to navigate the rivers and very few provisions left. Prince Henri d'Orleans prepared a new expedition for the coming winter, which he intended to conduct through Shoa independently of Count Leontieff and the Russians. Envoys from the Negus were received by President Faure in July. The French began the

construction of a railroad from Jibutit to Harrar with the object of opening up trade with Ethiopia. A more elaborate administrative organization was introduced in French Somaliland. Hausa troops, recruited in Dahomey, were sent to strengthen the native force at Jibutit. The population of this port had been increased by the railroad enterprise from 85 Europeans and 4,000 natives in 1897 to 1,400 Europeans and 8,000 natives in 1898. Lieut. J. L. Harrington arrived in Abyssinia in October to enter upon his mission as British resident at the court of Menelek.

AFGHANISTAN, a monarchy in central Asia, separating British India from Russian Turkestan. The reigning Ameer, Abdurrahman Khan, was placed on the throne by the British in 1880 after they had expelled Yakub Khan and occupied Cabul. The kingdom has a length of 600 miles and an extreme breadth of 500 miles. The population is about 4,000,000. The Amu Daria, or Oxus river, forms the boundary between Afghanistan and the Russian possessions up to its source in Lake Victoria, whence the boundary follows a line eastward to a peak in the Sarikol range on the border of Chinese Turkestan. The delimitation of the frontier by British, Russian, and Afghan commissioners established the fact that this southern arm of the Oxus is the main stream, and consequently the Afghans relinquished to Russia the khanates of Roshan and Shighnan, together with the main part of the Pamirs. The boundary between eastern and southern Afghanistan and the British sphere has been demarcated in accordance with the Durand agreement of 1893, with the exception of the section between Asmar and the Khaibar. The Ameer agreed that Chitral, Bajaur, Swat, and Chilas should be included in the British political boundary and conceded the British claim to Waziristan, while he retained Asmar and the Kunar valley as far as Chanak, with the tract of Birmal. Kafiristan, which was acknowledged to be on the Afghan side of the boundary, was afterward occupied by a military force, and the inhabitants, who have their own religious and social system, were thoroughly subjugated.

The Ameer levies taxes in kind, varying from a tenth to a third of the produce in proportion to the benefits of irrigation. He receives a subsidy of 18 lakhs of rupees per annum from the Indian Government. With the aid of this subvention he has revived the regular army, established after the European pattern by Shere Ali, and maintains in the neighborhood of Cabul, the capital, about 20,000 troops, including 2 field batteries, 6 mule batteries, and an elephant battery. In his arsenal rifled cannon, magazine rifles, and cartridges are manufactured with European machinery under the superintendence of an Englishman. Including tribal levies the effective war strength of the Afghan army is supposed to exceed 50,000 men. The chief products of Afghanistan are wheat, barley, rice, millet, peas, beans, maize, spices, nuts, fruits of many kinds, which are preserved for export to India, the castor-oil plant, madder, and asafetida, which are abundant in the wild state, large quantities of the latter drug being exported, iron, gold, and precious stones, and of manufactured articles carpets, silk, felt, and sheepskin garments. The principal imports are cotton goods, sugar, indigo, and China tea. The chief exports are wool, fruits and nuts, and horses.

During the armed conflict of the Afridis and other border tribes with the power of Great Britain the Ameer suffered much loss and inconvenience from the interruption of commerce and was placed in a difficult position, being unable to support or aid either the tribesmen or the British Government

without incurring political dangers. Arms and ammunition were supplied to the tribesmen through Afghanistan, but the Indian Government was not disposed to call Abdurrahman to account for any covert action or complicity so long as his public attitude was correct. Afridi refugees who sought an asylum in Afghanistan were harbored, since the Ameer was bound by his religion to receive them as fugitive Mohammedans. Afridi envoys, however, who went to Cabul in May, 1898, to solicit his aid and protection, were dismissed without an audience.

ALABAMA, a Southern State, admitted to the Union Dec. 14, 1819; area, 52,250 square miles. The population, according to each decennial census since admission, was 127,901 in 1820; 309,527 in 1830; 590,756 in 1840; 771,623 in 1850; 964,201 in 1860; 906,992 in 1870; 1,262,505 in 1880; and 1,513,017 in 1890. Capital, Montgomery.

Government.—The following were the State officers during the year: Governor, Joseph F. Johnston; Secretary of State, James K. Jackson;



JOSEPH F. JOHNSTON, GOVERNOR OF ALABAMA.

Treasurer, George W. Ellis; Auditor and Comptroller, Walter S. White; Attorney-General, William C. Fitts; Commissioner of Agriculture, Isaac F. Culver; Superintendent of Education, John O. Turner; Adjutant General, Robert F. Ligon; Chief Justice of the Supreme Court, Robert C. Brickell; Associate Justices, Thomas N. McClellan, Thomas W. Coleman, James B. Head, and Jonathan Haralson; Clerk, Sterling A. Wood—all Democrats.

Finances.—The receipts and disbursements of the treasury during the fiscal year ending Sept. 30, 1897, were as follow: Balance in treasury Sept. 30, 1896, \$58,319.40; receipts from Oct. 1, 1896, to Sept. 30, 1897, \$2,174,644.37; total, \$2,232,963.77. Disbursements on warrants of current year paid from Oct. 1, 1896, to Sept. 30, 1897, \$2,188,955.20; outstanding warrants of previous years paid during the year, \$3,028.36; total, \$2,191,983.56. Balance in the treasury, \$40,980.21. There were outstanding warrants, \$9,249.24; salaries earned and not paid, \$6,837.99; balance due the university on appropriation, \$3,000. Amounts due to special funds: Penitentiary fund, \$36,263.07; soldiers and widows, \$116,807.99; Agricultural Department, \$23,485.82; colleges of agriculture and mechanic arts, \$17,761.75; educational fund, \$167,514.29; 2- and 3-per-cent. fund, \$428.63; total, \$386,348.78; deduct cash balance in treasury, \$40,980.21, and the net deficiency was \$345,368.57. Receipts and disbursements during the year ending Sept. 30, 1898, were: To balance in treasury Sept. 30, 1897, \$40,980.21; to total receipts from Oct. 1, 1897, to Sept. 30, 1898, \$2,242,894.73; total, \$2,283,874.94. To

disbursements on warrants of the year, \$2,205,244.37; to disbursements on outstanding warrants of previous years, \$3,387.32; total, \$2,208,631.69; balance in treasury, \$75,243.25. Against this balance there were chargeable: Outstanding warrants, \$13,467.43; salaries earned and not paid, \$4,713.60; amounts due special funds: Pension fund, \$122,136.24; Penitentiary fund, \$85,680.13; educational fund, \$56,437.96; Agricultural Department, \$15,523.16; colleges of agriculture and mechanic arts, \$18,612; 2- and 3-per-cent. fund, \$428.63; total, \$316,999.15; deducting cash balance in treasury, \$75,243.25, left net deficit of \$241,755.90.

Banks.—According to the statement of the Comptroller of the Currency, the condition of the 26 national banks in the State was as follows in February, 1898: Resources—Loans and discounts, \$5,721,483.14; overdrafts, \$241,522.69; United States bonds to secure circulation, \$903,500; United States bonds to secure United States deposits, \$100,000; United States bonds on hand, \$1,500; premiums on United States bonds, \$80,591.13; stocks, securities, etc., \$1,341,152.55; furniture and fixtures, \$411,377.42; other real estate and mortgages owned, \$224,514.78; due from other national banks (not reserve agents), \$1,281,419.41; due from State banks and bankers, \$446,756.37; due from approved reserve and other cash items, \$61,502.23; exchanges for clearing house, \$59,099.24; bills of other national banks, \$148,439; fractional paper currency, nickels, and cents, \$5,414.98; lawful money reserve in bank: gold coin, \$360,197.60; gold Treasury certificates, \$39,780; silver dollars, \$157,062; silver Treasury certificates, \$117,180; silver fractional coin, \$43,607.66; total specie, \$717,827.26; legal-tender notes, \$398,105; total, \$1,115,932.26; 5-per-cent. redemption fund with Treasurer, \$39,809.56; due from United States Treasurer, \$1,680.60; total, \$14,292,525.59. Liabilities—Capital stock paid in, \$3,355,000; surplus fund, \$650,965.84; undivided profits, less expenses and taxes paid, \$515,521.45; national bank notes issued, \$813,150; less amount on hand, \$33,340; amount outstanding, \$779,810; due to other national banks, \$342,614.14; due to State banks and bankers, \$241,879.62; dividends unpaid, \$4,864.67; individual deposits, \$8,153,142.61; United States deposits, \$81,624.55; deposits of United States disbursing officers, \$18,094.44; notes and bills rediscounted, \$134,003.77; bills payable, \$15,000; average reserve held, 40.53 per cent.

Education.—In 1898 the number of children attending school was 567,110—whites, 312,660; colored, 254,450. The total educational fund was \$425,319.41. A report issued by the Superintendent of Education, giving the educational status of the State from 1855, when the school system was organized, to 1898, was journalistically regarded as "a splendid showing for the progress of education in Alabama and for the present school system." In 1855 there was appropriated to the school fund from all sources \$237,515.39, and there were 145,588 pupils; in 1896 there was contributed from all sources \$657,516.64, and there were 308,507 pupils.

Convicts.—The gross earnings from the hire and labor of convicts for the two years ending Aug. 31, 1898, was \$325,196.10, and the expenses (not including the cost bills) was \$136,662.50, showing a net profit of \$188,533.60. There was a cash balance in the treasury to the credit of the convict fund of \$82,619.39, in addition to which there was due from contractors for the hire of convicts \$10,780.56 and the product of the Alabama Cotton Mill to the amount of \$25,102.56, making the available resources of the bureau \$118,502.51; the convict cotton crop of the year was valued at \$17,500, and the Alabama Cotton Mill plant at \$78,347.77, making a grand total of \$214,350.28. The Penitentiary

was out of debt. Disbursements for the maintenance of convicts for the two years ending in 1898 amounted to \$128,288.55, against \$173,033.25 for the former biennial period.

The Alabama Cotton Mill has 3,300 spindles, and was largely built by convict labor; its entire cost was paid for during the two years ending in 1898, excepting \$9,801.74, which was paid in the preceding biennial period; it began operation in 1897. The entire expense incurred in the operation of the mill, charging it with cotton at the market price, was \$42,987.16; the proceeds from the sale of cloth of the crop of 1896 was \$27,701.76, and the product of the mill on hand of the crop of 1897 was valued at \$25,102.56, making the output of the mill \$52,804.56; deducting disbursements, \$42,987.16, left a net profit of \$9,817.16.

In 1898 there were on hand 1,763 State and 786 county convicts. The inspector said in his report that "a great number of convicts are received into the Penitentiary in bad physical condition, due to the terrible condition of our jails and overcrowding."

Coal.—The production of coal in 1897 amounted to 5,868,271 tons. The number of men employed was 11,091. The total coke production was 1,395,252 tons.

Iron.—About 750,000 tons of pig iron were shipped from the Birmingham district during 1897, and 40,924 tons of iron pipe. The pig iron produced in the State amounted to 947,881 tons. The iron shipped does not represent all made and used, a large quantity being consumed at home. Pig-iron shipments from the Birmingham district for the first five months of 1898 were 323,000 tons, an increase of 43,894 tons over the same period of 1897. Cast-iron-pipe shipments for the first five months of 1898 were 20,750 tons, an increase of 6,511 tons. Export shipments fell off as compared with 1897, on account of the war with Spain.

Wages.—The miners of the State met in convention in May, 1898, and organized themselves into a State district affiliated with the United Mine Workers of America. Statistics compiled by the secretary of the Birmingham Commercial Club show that there was an increase of one third in the number of wage earners in the Birmingham district during 1897; then there were 9,000 names on the pay rolls of the industrial companies, and the number had reached 12,000. The wages per month in 1897 amounted to \$480,000, and had risen to \$640,000. In Jefferson County, not including Birmingham and the immediate suburbs, the wage earners numbered more than 17,000, with about \$700,000 in pay rolls, distributed as follow: Furnace employees 3,500, wages per month \$140,000; coal miners 6,507, wages per month \$260,280; iron-ore miners 4,000, wages per month \$140,000; coke-oven employees 1,400, wages per month \$50,000; employees in foundries, pipe works, etc., 2,000, wages per month \$100,000. In city and county there were 29,407 employees, receiving monthly in wages \$1,330,280. In 1897 the wage earners in the county numbered 24,000, with monthly wages amounting to \$1,110,000, showing an increase in 1898 of 5,000 employees and \$200,000 per month in wages.

Gold.—There is some gold mining in the counties of Clay, Cleburne, and Randolph. It is reported that within 18 miles of Anniston "gold is to be found in paying quantities, and hundreds of men are searching for it and finding it." A dispatch to the Montgomery "Advertiser" said: "Some rich finds have been made recently in the gold region of Cleburne County, about 20 miles from Anniston. There is no excitement here over the finds, for the people of this section have long known that gold existed in Cleburne. It is only recently, however,

that any special effort has been made to work the field, and even now it is being done in a comparatively small way and with inadequate machinery. Hundreds are working small creeks and branches with good results, and many gulches running off the backbone of the ore system are paying handsome profits."

Cotton.—The acreage given to the cotton crop in 1897 was 2,656,333; bales produced, 833,789, or 422,731,028 pounds; average price per pound, 6.69 cents; total value of crop, \$28,280,705.

Cattle.—The breeding of cattle for shipment to the West, there to be fattened, is a new industry in the State. It is estimated that 200,000 head were shipped in 1898.

Enterprise.—An industrial awakening was reported from many parts of the State. The American Net and Twine Company, of Boston, Mass., established a factory at Anniston in 1897, and were soon working 150 men and making 20,000 pounds of yarn and twine a week, with prospects of producing 50,000 pounds a week. The Alabama Steel and Wire Company was incorporated in 1898, with capital stock of \$2,000,000. The mill, which was planned to be in operation by June, 1899, is to have a capacity of 600 tons a day, with arrangement to increase the capacity to 900 tons in twenty-four hours. The output is to be sold to foreign markets exclusively. The Avondale Cotton Mills, a \$1,000,000 plant on the outskirts of Birmingham, was ready to commence operations. A number of Birmingham foundries were running day and night on orders for machinery for Louisiana sugar refineries. During the year new dwelling and business houses were erected in Birmingham to the value of about \$200,000. Birmingham bank clearings for the first six months of 1898 were \$11,837,631.44, against \$9,648,315.12 for the same period in 1897, an increase of \$2,289,315.72. The product of brick in the East Birmingham yards was 10,500,000.

Good Roads.—A State roads convention was held at Anniston and a permanent organization was reached.

Negro Farmers.—The colored farmers of the capital county of the State met in convention to discuss the interests of their industry, and the following resolutions were adopted:

"Whereas, We feel that the great curse of the negro farmer of the South is the continuous practice of wholesale mortgaging of growing crops and the excessive rates of interest on the money and goods received as a result of such mortgages; be it resolved,

"That it is the sense of this meeting to discourage the practice of mortgaging and as far as practicable advise the discontinuance of the same.

"That we advise our fellow-farmers to give more thought, time, and labor to raising of such products as will be of immediate use and benefit to their homes.

"That it shall be our future purpose to encourage our brother in black to practice economy, and thereby be enabled to purchase his own farm, throw off the shackles of mortgages, and sleep under his own vine and fig tree."

ANGLICAN CHURCHES. Statistical.—The fiftieth report of the Ecclesiastical Commissioners gives their total income as about £1,335,000. Its sources are, approximately: Rents of lands (mainly agricultural) and premises, £240,000; rents of houses, property, etc., in London and suburbs, £115,000; tithe and corn rent charges, £233,000; ground rents (mainly in London), £348,000; mining royalties, etc., £341,000; other receipts, £58,000. In another year, after putting £85,000 to their reserve fund, as they did in 1897, the commissioners propose to use £150,000 for the augmentation of endowments

and benefices. Till the present time their augmentations and endowments are equivalent to a capital value of about £30,000,000. The report showed that during the fifty years since 1840, when the commission was created, the commissioners had augmented or endowed upward of 5,800 benefices by annual payments charged on the common fund by capital sums expended in the provision of parsonage houses, etc., and by the annexation of tithe charges, etc. The value of the grants exceeded £813,880 per annum in perpetuity, and was equivalent to a capital value of £24,462,000. The value of benefactions met for the most part by grants from the commissioners exceeded £184,850 per annum in perpetuity, equivalent to a capital sum of, say, £5,545,500. A further sum of £26,000 per annum was also contributed by benefactors to meet the commissioners' grants for curates in mining districts. The total increase in the incomes of benefices thus resulting from the operations of the commissioners exceeded £1,024,230 per annum, which might be taken to represent a capital sum of £30,787,500.

Society for the Propagation of the Gospel.—The annual meeting of the Society for the Propagation of the Gospel in Foreign Parts was held in London, May 5, the Archbishop of Canterbury presiding. A resolution of sympathy with Mr. Gladstone in his illness was unanimously passed. It recalled with gratitude the many occasions on which since he became a member, in 1837, Mr. Gladstone had been the society's "eloquent advocate and devout supporter." The year's income of the society had been £317,512, including £205,434 in legacies and £11,289 in rents, dividends, etc. More than £177,000 had been received under the bequest of the late Mr. Alfred Marriott, but this in no way relieved the general fund. More than £100,000 of the bequest had been invested, and the rest had been distributed in North America (£7,130); the West Indies (£4,505); Africa (£23,730); Asia (£25,660); Australasia (£8,975); and Europe (£1,000). Including 12 bishops, 744 missionaries were maintained by the society, of whom 249 were in Asia, 171 in Africa, 27 in Australia and the Pacific, 209 in North America, 48 in the West Indies, and 38 chaplains in Europe. Of these, 127 were natives laboring in Asia and 50 in Africa. There were in all about 2,900 lay teachers, 3,200 students in the colleges, and 38,000 children in the schools. In consequence of inadequate funds the mission stations were everywhere undermanned, and further exertions were needed for the increase of the episcopate.

The Church Missionary Society.—The annual meeting of the Church Missionary Society was held in London, May 3, Sir John Kennaway presiding. The treasurer's report showed that the whole amount received for the society's general work was £305,625, £7,000 more than in 1896, and £44,000 more than in the year before that; and that the total income of the society, including all special funds, had been £331,598. This was the highest income ever received for the general work. The associations had contributed to the total of general receipts £197,324, the largest amount ever sent up by them. Great thankfulness was expressed in the report for the response which had been given to the appeal made two years previously on behalf of the "Three Years' Enterprise," to which £42,000 had been already contributed. Notwithstanding the large receipts and the fact that the previous year's deficiency of £9,000 had been wiped off, the rapid development of the work had resulted in an expenditure exceeding the annual income by £20,000. From the mission fields were returned 483 stations; 411 ordained and 127 lay European missionaries, with 300 wives and 254 other woman missionaries, making a total of 1,092;

357 native and Eurasian clergy, 5,601 native lay teachers, 63,768 communicants, 15,139 baptisms during the year, and 2,191 schools, with 82,696 pupils. New openings were reported in China, where 744 persons had been baptized during the year, and a very interesting work was going on among the policemen and soldiers of Japan. The Student Volunteer Movement, or the World's Student Christian Federation, was represented at the anniversary meeting of the society by its general secretary, Mr. J. R. Mott, as a society whose special object was the cultivation of the missionary spirit and the promotion of the success of missionary enterprise. It had been established ten years, and had enrolled 6,000 young men and women students in universities and colleges in all parts of the world in co-operation with its work.

The Church Army.—The report of the Church Army, made at its annual meeting, showed that during 1897 about 80 trained men and women had been added to its staff, which now included 316 parochial evangelists, 120 van evangelists and colporteurs, 65 social officers, 154 mission nurses, rescue and slum workers, and 77 associate trained evangelists. The missionaries in charge of the 48 vans had conducted during the year 2,400 seven-day parochial missions, and had sold or distributed a large number of Bibles and other good literature. The year's gross income had been £98,000, showing an increase of £5,000.

A statement of the social-work and labor-home system of the Church Army, made at a meeting held in London, March 14, represented that it had 70 labor homes and other institutions in the metropolis and throughout the provinces for dealing with the outcast—men, women, and boys—irrespective of creed, character, and color. More than 13,000 cases had been dealt with in 1897, and 58 per cent. of them had obtained a genuinely fresh start in life. The only qualifications required for admission to the homes were freedom from physical infirmity; a desire to make use of the offered chance of a fresh start; and that the person's age should not be more than forty years, or forty-five if possessing a trade. Nearly £13,000 had been paid in wages to the inmates of the homes during the past year. The average length of stay in a home was thirteen weeks.

Sunday Schools.—The report of the Church of England Sunday-School Institute, May 10, shows, from returns sent by 13,635 out of 13,872 incumbents, that the number of scholars in Church Sunday schools in 1897 was 2,910,565, the year's increase being 19,940. The teachers numbered 209,742. Four hundred and two associations were in union with the Institute, including 19 in India and the colonies. The Church of England Bible Readers' Union had 50,000 members. The report suggested that Sunday schools needed further episcopal recognition and support, and that teachers should be admitted to their office at a service in church or in the school. A properly organized effort was also needed to improve the teaching. The year's revenue had been £1,586 for the general fund, and £10,766 gross by the sale of publications.

Clergy Relief.—The Queen Victoria Clergy fund was incorporated by royal celebration in the sixtieth year of her Majesty's reign as a national fund to supplement the diminished incomes of the clergy. At a meeting in its behalf, held July 4, the Archbishop of Canterbury represented that of the 14,000 benefices in the country, 6,000 were of the value of less than £200 a year; about 4,600 of them had an average income of £150, and the remaining 1,400 an average income of £65. It was not only the case that the incomes were so small; a great number of these gentlemen had larger incomes only

a little while ago, but they had been gradually falling in consequence of the great diminution in the value of land and tithes.

The report of the Committee of the Poor Clergy Relief Corporation, made at the annual meeting, July 7, emphasized the great need of the society, in view of the fact that of all the educated professions the clergy of the present day belong to the poorest. Help was afforded to necessitous clergy without reference to party complexion or schools of thought. The income of the society for the past year had been about £15,000, and £5,912 had been absorbed in money grants to clergymen, widows, and orphans, besides £551 in holiday grants, while clothing of the estimated value of £3,994 had been distributed. A surplus of about £6,000 was left to be carried to capital account.

Bishop of London's Fund.—The Bishop of London's fund was established in 1864 by Archbishop Tait of Canterbury in aid of church-erection and mission work in the metropolis. The public has since then given it more than £1,000,000, and this sum has been spent in building 185 churches in London and its surrounding districts, and in assisting to provide clergy for those churches.

Society of the Sacred Mission.—The Society of the Sacred Mission was formed about 1890 at Brixton, having for its special object the training of laymen who are willing to take the monastic vow for service, more especially for the foreign-mission field. At a meeting in the interest of this work, held Feb. 1, to consider means for obtaining new quarters for it (preferably at Cambridge), the Bishop of Rochester presided, and made an address commending the enterprise as a feature of a great revival of the missionary spirit. The Rev. Canon Newbolt said he regarded the mission as an envoy in reviving monastic religious life, and spoke of the wrong that had been done in branding as lazy and vicious the monks in the religious houses that were suppressed. The purpose of the mission was not only to invite men to offer their service to the Church without prospect of reward, but to give them an opportunity to test their vocation. More candidates were applying than could be received.

Church Defense Committee.—The second annual meeting of the Church Defense Committee—an organization formed by amalgamating in 1897 the Church Defense Institution with the Central Church Committee—was held in the Church House, Westminster, March 28. The Archbishop of Canterbury presided. The report recorded the quiet but unremitting pursuit during the year of the work of Church defense and instruction. A circular had been sent to every beneficed clergyman suggesting the observance of Oct. 24 or some other convenient day as "National Church Sunday," and inviting sermons on Church defense and instruction, with offertories whenever possible. A larger number of illustrated lectures on Church history had been delivered than in the previous year. Six hundred and forty-nine ruridecanal and 5,959 parochial secretaries were recorded. The income of the committee for the year had been £11,307. The defeat of two parliamentary measures bearing adversely to the claims of the Church was mentioned. Resolutions were adopted pledging support to the benefices bill, which was designed to remedy acknowledged abuses in the Church and expressing gratification at the progress it had made; urging continued organization of ruridecanal and parochial committees and continued effort "to disseminate an accurate knowledge among all classes of society of the history and work of the national Church"; and expressing hope for a speedy satisfactory settlement by the royal commissioners of the question of the burden of local taxation borne by the clergy.

Church Association.—The annual meeting of the Church Association was held in London, May 2, Capt. A. W. Cobham presiding. The income of the association had been £7,183, but although a balance of £46 was returned, the funds were declared to be totally inadequate. The van colporteurs had given 2,322 addresses and distributed 116,000 Protestant publications in 1,541 villages.

Church Reform League.—The third annual report of the Church Reform League contains the names of 1,600 Churchmen who have joined the society, including 842 clergymen. Sixty-eight branches have been formed in England and Wales, some of which are diocesan and some ruridecanal. Sir Alfred Holdsworth has been employed as paid secretary, and an office has been established at the Church House, Westminster. The total receipts for 1897 were £360, of which a balance of £22 remained. About one hundred meetings were held during the year, and a number of pamphlets and leaflets had been published and widely distributed, among which was a letter from Mr. Gladstone expressing sympathy with the movement.

The Liberation Society.—The sixteenth triennial Conference of the Society for the Liberation of the Church from the Patronage and Control of the State was held in London, May 3 and 4. The Rev. Dr. J. Guinness Rogers presided. The report of the executive referred to the results of the by-elections and the school-board elections, and the formation of the Free Church Council as indicative of the growth of liberationism and the increase of nonconformist strength; adversely criticised the bill for the reconstruction of London University; exhorted friends of religious equality to resist the endowment of a Roman Catholic university in Ireland; spoke of the present prospects of the nonconformist marriages bill as uncertain; and, referring to the "growing Romanistic lawlessness" within the Established Church and the attempts to reform abuses therein, expressed the opinion that the English Church can not be effectually regulated by legislative machinery or by appeals to judicial tribunals. The financial report represented that the receipts of the society had amounted to £4,649, and the expenditures to £4,500. This income was altogether inadequate to the demands made upon it, and needed to be increased by £1,000. Resolutions were adopted welcoming recent declarations of leaders of the Liberal party of continued adherence to the policy of disestablishment in Wales and Scotland; urging increased energy in carrying on the society's work; condemning the proposed establishment of a Roman Catholic University in Ireland as a retrograde measure, not called for by the necessities of the case, but calculated to intensify existing sectarian differences and injuriously affect the interests of learning; and instructing the executive to take such steps as might be necessary to defeat the measure, while they should support any needed changes in university teaching which would be "free from sectarianism and consistent with the maintenance of religious equality"; condemning the educational policy of the Government, and hoping that friends of unsectarian education would persistently aim at the establishment of a national system based on the principle of local and representative management, free from religious disabilities, and recognizing the just claims of the teaching profession.

At the autumnal meeting of the council of the society, Oct. 24, Mr. Albert Spicer, M. P., presiding, speaking in reference to the prevailing excitement concerning ritualism, said that some of them had always thought that disestablishment would come naturally from the dissensions in the Church of England, but it must never be overlooked that it

was the steady, able, and persistent work of the Liberation Society that had brought the question to the position in which it stood to-day. The society had kept the free-church principles to the front, and by its collection and diffusion of accurate information had supplied speakers with the means of educating public opinion. He thought the movement would gain by a sympathetic co-operation of the Liberation Society, with its long experience, and the new Nonconformist Political Council, with its youthful enthusiasm. A resolution was adopted affirming the belief that no effective remedy for the evils complained of would be found in either the action of the bishops of the Established Church, the renewal of ecclesiastical prosecutions, or new parliamentary enactments. The state, having proved itself unable to exercise adequate control over the Established clergy or successfully to regulate the Established Church's affairs, should withdraw from the Church national authority and endowments, and, concurrently therewith, permit its members to possess the same rights of self-government as are enjoyed by non-established religious communities. In the opinion of the Council the time had arrived when the question of disestablishment should be urgently pressed upon the leaders of the Liberal party, and also upon the constituencies, in view of the next general election. Another resolution called for new and vigorous efforts to remove the grievance caused by the absence of public unsectarian schools under popular control in thousands of English parishes, and urging especially the necessity of increased facilities for the training of teachers in undenominational colleges.

The Church and Papal Claims.—In a letter addressed to Cardinal Vaughan, March 12, concerning a paper issued by him entitled "A Vindication of the Bull *Apostolicæ Curæ*," the archbishops entered a denial of the claims made in the paper of supremacy of power and authority in the Pope, affirming that such claims had been deliberately and consistently rejected not only by the Church of England, but also by the great churches of the East, and declining to allow that those bodies "have given any evidence of that chaos which you suppose to be inevitable where the papal claims are not accepted." The letter called attention to the fact that the author of the "Vindication" had introduced the doctrine of transubstantiation as practically constituting "the one sure test of the validity of holy orders," while the Pope had made no direct reference to that subject. "Had his Holiness" they say, "followed the line of argument which you have now adopted, our answer must have taken a different form. But we could not answer what he did not say. . . . It is, for us, simply impossible to believe it to be the will of the Lord that admission to the ministry of the Church of Christ should depend upon the acceptance of a metaphysical definition, expressed in terms of mediæval philosophy, of the mysterious gift bestowed in the holy eucharist; above all, when we remember that such a definition was unknown to the Church in the early ages of its history and only publicly affirmed by the Church of Rome in the thirteenth century." The archbishops concluded their letter with the expression of the belief that among the hindrances to the fulfillment of the unity of the Church "there are few more powerful than the claims of supremacy and infallibility alleged on behalf of the Pope of Rome and the novel dogmas which have been accepted from time to time by the Roman Church."

Convocations.—At the meeting of the Convocation of Canterbury, Feb. 15, the reply of the Queen to the address presented by the Convocation to her Majesty on the occasion of her diamond jubilee

was read. The archbishop represented in the upper house that the working of the voluntary schools act of the last session had been very satisfactory, and the operation of the associations of schools had been exceedingly favorable all over the country. The creation of the federations of schools had had the effect intended. The archbishop and the Archbishop of York had agreed that the holding of joint sessions of the two convocations from time to time would be good for the Church. Resolutions appended to the report of the committee of the upper house on parochial councils and discussed in the lower house sought to impress upon the parochial clergy "the importance of securing the confidence and co-operation of lay Churchmen in the manner which in each parish may be best adapted to its wants," and suggest that one mode by which this may be accomplished would be by the formation of parochial Church councils, the initiative in forming these councils and the power of dissolving them to rest in the incumbent, subject to the approval of the bishop; the councils to consist of the incumbent, who should be chairman, the assistant clergy licensed by the bishop, the churchwardens, sidesmen duly appointed and admitted, and elected councilors, all to be communicants of the Church of England. The duties of the council should be to take the principal share in the raising of funds and administrative finance, and to assist the incumbent in the initiation and development in the parish of all departments of parochial Church work, and to advise him on matters in which he thinks it expedient to consult them. The House of Laymen directed the appointment of a committee to consider and report how "the freedom for self-regulation" referred to in a resolution passed by the house on May 13, 1897, should be exercised, and what steps should be taken with a view to obtain such freedom. The resolution of May 13 referred to in this action contemplated the institution of a reformed convocation "with the assistance in matters other than the definition and interpretation of the faith and doctrine of the Church of a representative body or bodies of the faithful laity."

The Houses of Convocation met again May 11. A petition was presented in both houses from Mr. John Kensit, publisher, 18 Paternoster Row, London, drawing the attention of the houses to the facts "that in a large number of the dioceses of the province, and especially in the metropolitan area services other than those in the Book of Common Prayer are in constant use, in most cases without lawful authority; that these services are largely those in use in the Church of Rome, and taken from the Roman Missal and other books belonging to that Church. I have been blamed for making public protest against these practices, and I desire to state that these protests are most painful to myself, and will most gladly be discontinued if those having authority will exercise the same and cause these illegal services to be discontinued." The archbishop, while criticising Mr. Kensit's proceedings in making the public protests, called attention to the importance of the subject and advised action upon it, saying that he had himself been intending to bring the matter before Convocation.

The lower house requested the archbishop to direct the appointment of a joint committee of both houses to consider and report on the position of the laity in the early Church and under the constitution of the Church of England, with reference to legislation on matters ecclesiastical, with power to confer with a committee of the Convocation of York appointed for the same purpose. It also suggested the appointment of a committee to confer with the Church Committee of the House of Com-

mons respecting bills before the house affecting Church interests.

At the third meeting of the Convocation, July 5, the upper house adopted a report concerning the remarriage of divorced persons, explaining that in consequence of recent legislation the Church had had to consider the matter from the point of view of principle. In so doing it could not shut its eyes to a conflict of opinion on the subject of the Lord's words, and to the course adopted by the Eastern Church in allowing dissolution of marriage for adultery. The resolutions of the Lambeth Conference of 1888 were quoted, declaring divorcees for adultery the only valid ones, with absolute prohibition of marriage of the guilty party during the life of the other, and recognizing difference of opinion within the Church as to the right of the innocent party to marry, in view of which the clergy should not be instructed to refuse the sacraments or other privileges of the Church to such parties remarried; and continued: "It ought, in our judgment, to be clearly and strongly impressed upon the faithful and upon the clergy as their advisers in matters of discipline and conduct that the Christian ideal is that of indissoluble marriage, and that the most dutiful and loyal course, even in the case of the innocent party, is to put aside any thought of marriage after divorce. But if any Christian, conscientiously believing himself or herself to be permitted by the Lord's words to remarry, determine to do so, then endeavor should be made to dissuade such people from seeking marriage with the rites of the Church, legal provision having been made for marriage by civil process. The language of the marriage service is unsuitable for repetition, except in case where the marriage tie has been dissolved by death or the marriage is proved to have been invalid from the beginning." Further, the report cites the declaration on the subject in the evangelical letter of the Lambeth Conference of 1897, uttering "earnest words of warning against the lightness with which the lifelong view of marriage is often taken, against the looseness with which those who enter this holy estate often regard its obligations, and against the frequency and facility of recourse to the courts of law for the dissolution of this most solemn bond."

The Convocation of York met Feb. 16. A resolution was passed expressing the opinion that the present method of procedure at the confirmation of bishops needs to be amended, and requesting the archbishop to counsel with the Archbishop of Canterbury on the subject. The archbishop was also requested, in view of the possible legal representation of the laity, to appoint a joint committee to determine what shall be the qualification of persons elected to serve as legal lay representatives. The lower house requested the archbishop to confer with the Archbishop of Canterbury with reference to the appointment of a committee duly representative of the Houses of Laymen of both provinces to consider and report upon the position which the laity should occupy in any scheme for the self-government of the Church; but advised that "it is not advisable to delay legislation on ecclesiastical matters until a reform of the Houses of Convocation and the legal representation of lay members have been effected."

At the second meeting of the Convocation, June 8, the Bishop of Liverpool moved, in the upper house, "that, in the opinion of this house, the increase of lawlessness on the part of many of the clergy in the conduct of divine worship in their churches, and especially the introduction of unauthorized services in the practice and celebration of the holy communion, and the growing dissatisfaction of the laity in consequence of such lawlessness demand the special attention of the bishops, and

therefore this house considers it necessary at the present juncture that the clergy of our respective dioceses should be called upon to remember the solemn declarations, subscriptions, and oaths made and taken by them at their ordination, licensing, or institution, and in particular their legal and moral obligation to use the form prescribed in the Book of Common Prayer and none other, except so far as shall be ordered by lawful authority." The bishop observed that he regarded the Church of England as at the present moment in a very perilous position, above all, from the dangerous fact that the people were complaining continually in every part of the land that the bishops would not speak out, and would not do anything to show whether they approved or disapproved of the movement that was going on in the Church of England. The result of that must certainly be that sooner or later, drifting as they appeared to be, the end of all would be disruption and disestablishment. Churchmen all over the land were angry, and many refused to go to church because they said the clergy were going behind the Reformation. The evil was increasing more and more, and was a cancer eating into the very vitals of the Church of England. The motion was supported by the Bishops of Manchester, Durham, and Sodor and Man, who recognized equally with the archbishop the gravity of the crisis and advanced arguments in substantial harmony with those which he had presented. The Bishop of Wakefield moved an amendment, declaring that, "in the opinion of this house, there is a serious danger at the present time of wide divergencies in liturgical practices, owing to the introduction on the part of some of the clergy of services and ceremonies unauthorized by lawful authority and alien to the principles of the Church of England, and especially owing to the alterations by way of omission or addition to the order for the administration of holy communion, and that these practices need some restraint and guidance, due regard being had under the authority of the ordinary to modern needs and the reasonable liberty which has always obtained in the Church of England." Supporting his motion, he claimed that the bishops had acted, and were acting, and held that it was futile to undertake to govern the Church of England as a system of machinery which was two centuries old, and which could not be applied in its entirety and strictness to the ends of the present day. A great growing and lively Church like this must have constant developments tried in order to provide an outlet for the religious needs of the present day. The Bishop of Chester did not regard the crisis as acute, and thought it would be better for them to content themselves with the utterance of opinions. The archbishop, closing the debate, thought that to regard the state of things as found in some quarters as characteristic of the Church as a whole would be a very grave exaggeration. His own impression was that there was, no doubt, in every diocese a certain number of instances in which the things described in the complaints were done, but these were a mere handful among the clergy of the Church of England; and he believed that the present evil, so far as it existed, was a temporary ailment which would sooner or later run its course and pass away. The amendment offered by the Bishop of Wakefield was adopted.

The Ritualistic Crisis.—The attention of the people of England has been forcibly directed to the development and extension of ritualism by a course of proceedings of novel and rather sensational character. The feelings of the antiritualists among the laymen were emphatically expressed in the House of Laymen of the Convocation of Canterbury by Sir Henry Embree, M. P., who said they

had heard a great deal about the susceptibilities of the clergy; he would venture to put in a plea for the susceptibilities of the laity. It would be unwise, he said, to shut their eyes to dissensions which existed in the Church. Interpolations of faith and doctrine were set before them by individual clergy, and they had "uses" introduced at their services which were alien to the Church of England. Had the laity no right to speak on such questions? They had every right, and they would exercise it. If they did not, to whom could they look for guidance? Not to the bishops. Why not? "Because we have bishops who do not govern, and clergy who will not obey." The Church of England, he contended, was passing through an extremely grave crisis, and to argue that the laity must have nothing to say to strange interpretations of faith and doctrine was absurd.

In January, Mr. John Kensit, of London, a publisher, began a course of visiting churches where ritualistic uses were practiced, and on their introduction, rising, and, as a communicant and ratepayer of the Church of England, protesting against them. So he did at the Church of St. Ethelburga, Bishopsgate, where he demanded to be given the communion "in the Protestant way," secured the removal of illegal objects, and caused the curate in charge to resign his position rather than give the communion to him as he demanded; and at St. Michael's Church, Curtain Road, where a protest was made against the ceremony of aspersion, or sprinkling with holy water, and one of his associates was arrested for "brawling," while a summons was asked for against the curate for assault by throwing water (the aspersion) upon the Protestants. For some of his protests Mr. Kensit was himself taken to court and fined. He prepared a petition to the Convocation of Canterbury, calling the attention of the houses to the alleged illegal practices and asking them to take steps to have them cease. He had difficulty in finding any member of Convocation willing to introduce the petition, when he received an unexpected letter from the Bishop of London offering to present it the next day. The bishop added to the offer the words: "It would greatly strengthen my hands in dealing with this very important matter if you would assure us that you would discontinue your protests at divine service and would submit to me a memorial stating objectionable practices and your reasons for objecting to them." Mr. Kensit replied with an assurance that he would make no public protest in any Church for two calendar months, and that he would cause arrangements that had been made for public protests in thirteen other dioceses to be similarly suspended. The following statements were made in Mr. Kensit's petition to the bishops:

"The petition of the undersigned, John Kensit, a baptized communicant of the Church of England, humbly sheweth—

"I. That grave scandal and distress have been occasioned to the minds of many, including the petitioner, by the restoration within many churches, both of the metropolis and throughout the land, of the practices and teachings which were discarded by the national Church at the time of the blessed Reformation, all of them borrowed from the Church of Rome, and designed to teach the false doctrine, among others (a) that the consecrated wafer is not merely an 'emblem of the Lamb of God,' but, in

the words of the Bishop of Southwell, is 'actually and really the Lamb of God,' to be worshiped by the congregation as being 'God blessed forevermore'; (b) that this 'Lamb of God' so reproduced in the hands of a priest 'under the form of bread and wine' is offered upon an 'altar' by the priest, as a sacrifice, for the remission of pain or guilt, and for the absent or dead.

"II. That grave injustice is done to the laity when idolatrous rites are enacted publicly by the officiant in public worship, because his acts are those of the congregation which he represents, and in whose person he addresses the Almighty. Every person present, therefore, who does not protest is an accomplice and participant in these illegalities. As a result, thousands of parishioners are debarred from attending public worship, and repelled from the Lord's Table by the conduct of clergymen who, though members of the Protestant Reformed Church of England as by law established, yet repudiate the very name of Protestant, and in defiance of their ordination vows preach, teach, and inculcate the doctrines and practices of the Church of Rome.

"III. That these abuses, though growing rapidly, owing to the protection afforded to the wrongdoers by the bishops, have gone on uninterruptedly for many years, and that the inaction of the bishops can be in no way due to the recent proceedings taken by your petitioner.

"IV. That great social and domestic evils are being felt in many families owing to the inculcation of the practice of sacramental confession upon candidates for confirmation and others for which no warrant exists in the Reformed Church of England; and nothing would do so much to check this evil as its outspoken condemnation by the House of Bishops.

"V. That your petitioner recognizes the right of the legislature to alter, vary, and add to the ritual now in lawful use, and also the binding nature of the decisions of the Queen in Council, but he respectfully submits that no other standard can possibly be acceptable to the whole Church as established by law. The only hope of peace in an established church is the common agreement to be bound by the same formularies until they have been amended by the same authority which originally enacted them.

"VI. Your petitioner submits the following list of some ornaments and ceremonies which have already been declared by the Queen's courts to be illegal: Unlawful ornaments of the minister: (1) the alb; (2) the berretta; (3) the chasuble; (4) the cope; (5) the dalmatica; (6) the tunic or tunicle; (7) the maniple. Unlawful ornaments of the church: (8) a baldachino; (9) lighted candles when not required for giving light; (10) a stone altar; (11) a cross on, or over, or in apparent connection with the communion table; (12) a crucifix; (13) stations of the cross. Unlawful ceremonies: (14) bowing down before or addressing worship to the consecrated elements; (15) the attendance of acolytes; (16) tolling of bell at consecration; (17) making the sign of the cross over the people; (18) hiding the manual acts; (19) elevation of the elements; (20) the use of incense; (21) the ceremonial mixing of water with the wine during divine service; (22) the use of wafers in lieu of bread 'usual to be eaten.'

"The growth of these illegal practices is indicated by the following table:

PARTICULARS.	1882.	1884.	1886.	1888.	1890.	1892.	1894.	1897.
Vestments.....	886	898	509	599	797	1,029	1,370	1,632
Incense.....	9	22	66	69	135	177	250	307
Altar lights.....	581	743	968	1,136	1,402	2,408	2,707	3,568
Mixed chalice.....								2,111
Hiding manual acts.....	1,662	2,054	2,433	2,690	3,133	3,918	5,087	5,964

"Under these circumstances, the Church has a right to expect that the bishops should suppress all unlawful practices at once, and direct the removal of stone 'altars' or other illegal furniture introduced without a faculty, and the restoration of the Ten Commandments to their accustomed place; should refuse to consecrate any church until illegal ornaments have been removed; and should at once suppress all variations in the communion service from the language and rubrical directions of the Book of Common Prayer, and that no office book be employed in any service which has not the authority of the entire Church of England. For these purposes the bishops have already ample powers. The bishops have already power to refuse to license any lawbreaking clergyman to a curacy, to test the Romanizing spirit of candidates for the ministry, and to refuse institution to lawbreakers who will not conform in future to the requirements of the law. The paternal authority of the bishops would enable them in the vast majority of cases to put an end to the irregularities complained of, but where that may not suffice they can direct a monition to be served, disobedience to which would lead in due course to the suspension, or it may be deprivation, of the contumacious wrongdoer. Your petitioner respectfully submits that the long neglect of the ordinaries themselves has been the cause of the confusion and disorder which now exist.

"Your petitioner humbly desires that your honorable house will take immediate steps for the repression of these evils and abuses."

An appeal issued by the Church Association to the people of England in the beginning of July called attention to the influence of secret societies as the source of the existing troubles and of dangers from the teaching of the doctrines of the mass, and of sacerdotalism, which were described in forcible language.

The subject formed the principal topic discussed at the annual meeting of the Church Association, May 2, when the presiding officer, Capt. A. W. Cobham, in his opening address spoke of the situation in its relation to the movement represented by the association as indicating an approaching crisis. "The apathy of Protestants had been rudely shaken by the archbishop's reply to the Pope, by the attempt to upset the educational settlement of 1870, by the proposal of an Irish Roman Catholic university," and by practices called idolatrons against which Mr. Kensit had been moved to utter open protests during service. The report of the council mentioned as the only effective remedy against the advance of sacerdotalism the organization of a Protestant party in the House of Commons, and they were now endeavoring to enroll 100 Protestant electors in every constituency, who would pledge their votes to the side which it might be decided to support. They had undertaken the cost of Mr. Kensit's appeal against his recent conviction (based on his protest), and the cost of his application for removing a tabernacle—an "ornament"—from the Lord's table in St. Ethelburga's Church. A memorial relating to St. Ethelburga's signed by 15,000 Protestant Churchmen had that morning been presented to the Bishop of London. The decision of the council to support Mr. Kensit was approved by the association, and it was decided to raise £2,000 for the purpose. Mr. Kensit attended the meeting and was received with cheers. He declared that he was going all over the country in his crusade against idolatry in the Church of England, and that he believed a glorious reaction in favor of Protestantism was setting in; but it was a time for deeds, not words.

At a large meeting of ministers of the Established Church, held in London in May, a memorandum

was adopted setting forth certain principles adherence to which was regarded as essential to enable the Church to maintain its position and secure healthy conditions for effective progress. It recognized that a chief difficulty hitherto to be contended with had been in securing those Catholic privileges which, while they obviously and certainly belonged to Churchmen, had been overlaid and forgotten in past years of apathy and neglect. Individuals endeavoring to vindicate their rights in this respect had been moved by a desire to be united with other parts of the Church in witness to Catholic doctrine, but their action was limited to securing what seemed fairly within the limits of the authoritative sanctions and traditions of the English Church. On the other hand difficulties had arisen out of a return to certain practices which were explicitly or by implication abolished at the Reformation, or out of a resort to certain foreign developments which never had any footing in the English Church. The signers of the memorandum wished to express their view that developments of this kind could not be introduced except by or under the sanction of authority, submission to which was a first principle of Catholicism. The immediate authority with which English Churchmen had to do was that of the English Church, not that of the Roman or the Gallican or any other Church. It followed that nothing could have valid ecclesiastical authority for English Churchmen which the English Church had never received or authorized, or which the English Church had definitely repudiated, whether explicitly or by implication, though it might at one time have had the authority of that Church. Authority expressed itself through the bishops jointly and severally. The Declaration of Assent in the use of the Book of Common Prayer was interpreted in this memorandum as a pledge to use the ceremonies therein prescribed "as the positive and sufficient rule and order of the ministrations of the Church for which they are provided as opposed to modifications of them, whether by change, addition, or division, except in so far as such modifications may be enjoined or allowed by lawful authority."

Action of the Church Union.—The annual meeting of the English Church Union was held June 16, Viscount Halifax presiding. The president, in his address, asserted the right of the Church to say or sing mass with the old ritual, except in such particulars as had been forbidden, denounced those who would interfere with it or disturb the exercise of it, and said he was quite certain that lights, vestments, and the mixed chalice would not be given up; but services not directly prescribed by the Prayer Book, such as the Three Hours, the Story of the Cross, and the Veneration of the Cross, must be given up if the bishop of the diocese desired. Obedience to authority was of more importance than any particular form of devotion or liturgical enrichment. No one, however, who respected the authority of the Church could object to those services as superstitious or sensuous. It was no more superstitious to bow to an altar than to the throne, to say "with my body I thee worship" to a wafer than to the emblem of our salvation. It was impossible to obey episcopal admonitions founded on a denial of the truth, such as a condemnation of bowing to the altar because it witnessed a belief in the real presence of the body and blood of Christ under the forms of bread and wine, or a proposal to renounce the Athanasian Creed because it insisted on the necessity of holding to the Catholic faith for salvation. It was necessary that present wants should be met by the sanction of additional services and collects. If individual priests had stretched the limits of their

responsibility, was it not partly due to the fact that the authorities of the Church had done so little? The need of authorized prayers for the faithful departed and the reservation of the blessed sacrament for the communion of the sick, the duty of restoring the last unction, the obligation of maintaining the duty of Christian marriage at all risks—when had these been put forward by authorities of the English Church for the last thirty years except by Bishop Hamilton of Salisbury? It was not necessary that every detail of the service should be referred to the bishop, or that authority should make itself felt to the same extent as in the Roman Catholic communion. Canon Gore advised circumspection and care to remove every cause of blame from among themselves. They could not forever acquiesce in the present situation; but history emphatically taught that there was no way to lose liberty like that of allowing themselves illegitimate license. The Rev. A. J. Suckling, of St. Alban's, Holborn, held that by altering anything while brutal and barbarous interference was going on they would play into the hands of those who were doing their utmost to drive them out of the Church. It would be an admission that they regarded ritual as a kind of play, while it was most serious as an exponent of doctrine. They could not help the bishops by giving in. A resolution, moved by the Dean of Rochester, was carried without dissent: "That this union is prepared to give all possible support to the lawful authority of the bishops as ordinaries in the settlement of liturgical difficulties, humbly confiding that, as members of the Catholic episcopate, they will impose nothing on the consciences of the clergy and laity which is contrary to the teaching and practices of the whole Catholic Church of Christ. That the Union will give legal and all other assistance in its power to incumbents and congregations in all necessary efforts to protect the celebration of the holy eucharist and the services of the Church from profanity and sacrilege. That it must not be supposed that members of the Union and other loyal Churchmen, because they have not resorted to prosecutions, disturbances, or brawling in church, do not feel most keenly the omissions and deviations from the Book of Common Prayer and the novel practices which have been allowed to grow up in a Protestant or Latitudinarian direction during the present century, as well as the denial of the services to which they have a right, or that they are not often aggrieved and driven away from their parish churches thereby."

Declarations of Bishops.—The controversy concerning ritual was referred to by most of the bishops in official addresses or charges, or in special communications to the clergy of their several dioceses. Many of them uttered specific instructions concerning proper ritual or admonitions against excess.

The Bishop of London sent letters to the clergy of his diocese informing them that any additional service used should conform entirely to the spirit and intention of the Prayer Book, and in all cases should be submitted to his sanction; that such services, when used, should be separated by a distinct interval from the services appointed in the Prayer Book, and should be announced as additional; they should consist of psalms, lessons, and prayers taken from the Prayer Book adapted for special classes, such as services for children, or for men and women, or members of parochial guilds or organizations, or they should be intercessions for special purposes, such as missions, or temperance, or the like.

The Bishop of Liverpool issued a circular specifically mentioning a number of ritualistic practices not authorized by the Prayer Book, and requesting ministers to abstain from them. The practices speci-

fied are: The use of incense; the use of lighted candles in or near the communion table when not required for the purpose of giving light; the use of sacrificial vestments at the holy communion; the use of catechisms for children directly teaching "Mariolatry"; the use of prayers for the dead at holy communion, not enjoined in the Book of Common Prayer and expressly excluded from the second book of Edward VI; the requirement of habitual auricular confession from communicants, as a condition precedent to communion, or as tending to promote the highest spiritual life, which was expressly condemned by the Lambeth Conference in 1878; the use of the "reserved sacrament" for invalids, which was condemned by the twenty-eighth article of the communion rubric; the public celebration of the Lord's Supper with less than three persons to communicate with the priest; and the use of the word "mass" in giving notice of the holy communion.

The Bishop of Hereford made a distinction between the ritual of reverent devotion and that which was symbolical of unsound doctrine. That which spread sacerdotal and sacramental theories had no basis in the New Testament. He deprecated the disposition to introduce new ceremonies into the service, which were almost always imitations of some Roman Catholic practice, and strongly deprecated habitual confession as involving the risk of an unnatural sentiment, dangerous to the moral and spiritual nature. As to the method of dealing with these excesses, he thought no wise bishop would resort to prosecutions till every other effort had failed.

The Bishop of Lichfield in September instructed the clergy of his diocese that:

"1. The prescribed offices in the Book of Common Prayer should be said as ordered without omissions or additions, except such as are allowed under the act of uniformity amendment act, or as might be lawfully authorized from time to time by the bishop of the diocese.

"2. Audible interpolations in the communion service are illegal.

"3. The reservation of the blessed sacrament for the purpose of adoration is neither legal nor primitive. Its reservation for administration to the sick is primitive, but is not legal.

"4. The ceremonial use of incense in the prescribed services of the Church is illegal.

"5. The holy communion should not be celebrated unless the number of persons to communicate with the priest required by their Church is assured.

"6. Prayers for the dead should be after the primitive model, and in entire accordance with the spirit of the Book of Common Prayer.

"7. The observance of saints' days and holy days besides those for which a collect, epistle, and gospel were provided in the Book of Common Prayer should be limited to those in the Prayer-Book calendar.

"8. No additional services should be held in the church without the permission of the bishop.

"9. The invocation of saints is illegal.

"10. It is not lawful to impose any conditions on the baptized antecedent to their presentation for confirmation, nor on the confirmed antecedent to their reception of holy communion, which are not imposed by any order contained in the Book of Common Prayer."

The bishop declared that the only right and reasonable course for the sake of order and in justice to the laity was to keep to the Prayer Book; that the test of reality of worship is righteousness of life in this world; and the test of the efficiency of the ministrations of the clergy was the moral standard of their parishioners.

The Bishop of Worcester sent a circular of questions to churchwardens inquiring, among other things, whether the vicar used incense or wafer bread; whether any other books were used in the offices of the church than the Book of Common Prayer; whether the services were conducted strictly in accordance with the Prayer Book, without addition, diminution, or alteration; whether water was mixed with wine during the service; and whether any additions or alterations had been made in the ornaments of the church or in the fabric itself since 1895, and if so, by whose authority.

The Bishop of Winchester requested his clergy to give him the opportunity of inspecting all forms and offices used in their churches in addition to those prescribed in the Book of Common Prayer, saying that "in times of anxiety, whether reasonable or unreasonable, our security seems to be in falling back upon the definite terms of the prescribed rule and system of our Church. The result must be to strengthen our mutual confidence, to allay fears if they are groundless, and to restrain irregularities where such there are."

Charge of the Archbishop of Canterbury.—The Archbishop of Canterbury, in his address to the Diocesan Conference of Canterbury, said that he did not think it worth while to deny that there were a few men who did very much desire to carry the Church of England back under the domination of the Church of Rome. There were also some men, probably quite as many, who would very much desire to get rid of the present constitution of the Church of England in such a way as to join with it the nonconformist bodies on their own terms. But to say that the great body of the clergy of the Church of England had the smallest desire to submit themselves to the domination of the Church of Rome he was certain was not the fact. The archbishop acknowledged the existence of a great many irregularities that had grown out of a good deal of mistaken zeal, which it would be necessary that the bishops generally should look to. A simple way to settle the matter would be for the clergy, in compliance with their ordination vows, to abandon all services that did not find a place in the Prayer Book.

The archbishop delivered in October a series of visitation charges, in the course of which he interpreted the doctrinal teachings of the Church on a number of points. Concerning the sacraments, having shown that the spiritual reception by the communicant of the flesh and blood is taught, he said, respecting the question of the real presence, that the Church certainly teaches Hooker's doctrine that the presence should be looked for in the receivers of the consecrated elements, but that it "nowhere forbids the further doctrine that there is a real presence in some way attached to the elements at the time of consecration," the Supreme Court of Appeal in matters ecclesiastical, he asserted, having declared in the case of Mr. Bennet that this is open to all to believe if they think fit. The Church condemned the Roman doctrine of transubstantiation, but permitted the teaching of the doctrine of Luther, or consubstantiation. As to objects of worship, the Church allowed none except God himself. The ecclesiastical courts had decided that prayer for the dead was not forbidden in the New Testament or by the Church of England, but the Church did not authorize the introduction of such prayers into public worship, except in the most cautious and guarded manner. The archbishop condemned habitual and compulsory confession, and explained the law of the Church of England on the subject to be that confession should be always free and voluntary. While the Church tolerated a large diversity of opinion, it was strict in the enforcement of unity

in ceremonial. "It is the rule of strict ceremonial," the archbishop continued, "that makes it unlawful by the Church's law to elevate the consecrated elements in the communion office; to reserve them after the office is over; to carry them out of the church for any purpose whatever; to use incense ceremonially by carrying it in procession, or by censuring persons or things; to mix water with wine ceremonially by doing it visibly during the office; to introduce additional prayers; to introduce psalms or hymns or anthems at any point during the services, except where there is special order permitting it or where the service is for any reason illegitimately interrupted." The lawful authority who could authorize any modifications was the bishop. Coercive jurisdiction was exercised through the courts, but the bishop had very little power of that kind. The one power he possessed was the power not to enforce, but to empower other people to abstain from enforcing. The archbishop deprecated recourse to the courts, because it presented the Church to the world in an aspect of strife.

National Protestant Congress.—The ninth annual Congress in connection with the National Protestant League met at Folkestone, Oct. 17. The chairman, Sir C. Robert Leighton, in his opening address, spoke of the plain statements of the Archbishop of Canterbury in his visitation addresses of the previous week as having, he hoped, not paralyzed, but electrified the Protestant people of England. The primate, he said, voicing almost the entire episcopate of the English Church, had declared that it was not unlawful to hold the Lutheran doctrine of consubstantiation, or to teach it in the Church of England. They knew now why Dr. Temple had, with the so-called wish of keeping the peace, vetoed them when they had endeavored to put down unlawful things in the Church of England, and they knew now why he had put off their appeals to him in their difficulties. It was useless to go on memorializing bishops, because they had practically avowed through their mouthpiece, the archbishops, that they were of the sacerdotal party. The duty of Protestants was to join together more firmly and unitedly than ever, and make a crusade against what they believed to be doctrine contrary to the Church of England, contrary to the teaching of the early infant Church, and dishonoring to the Lord. Besides addresses on a number of general topics relating to Christianity, discussions were had on subjects bearing upon the existing crisis, such as "The Encroachments of Priestcraft (a) in the Church and State; (b) in the Family and Society"; "The Imperial Protestant Federation"; "National Council of Evangelical Free Churches in its Relation to Protestantism"; "The Jesuits: (a) Their Tactics and Influence; (b) Notorious Secret Societies in the Church of England."

Resumption of the Protests.—Mr. Kensit gave notice, Aug. 3, that he had no intention of making any further protests till the first Sunday in November, by which time he hoped the bishops might have interfered. If not, he hoped to arrange for a thousand simultaneous protests in different parts of England, without, however, any disturbance. In the meantime he organized a body of young men as "Wycliffe preachers" to co-operate with him and assist him. A meeting preparatory to the resumption of the protests was held in London, Oct. 28, amid some demonstrations of opposition. Mr. Kensit addressed this meeting respecting his movement, and said that the protests he had been compelled to make in the house of God against ritualism were distasteful to him, but he believed that God had directed him to make them, and had used them to work up the nation to the importance of the movement. He

read a letter he had received from the Bishop of London, warning him against persistence in his proceedings, and predicting their failure. Concerning his own course, the bishop wrote that he was endeavoring by private exhortation to deal with such irregularities or indiscretions as were brought before his notice in such a shape that he could deal with them.

The Church Congress.—The Church Congress met at Bradford, Sept. 27. The Bishop of Ripon presided, and delivered an opening address on "The Opportunities, the Deeds, and the Characteristics of the Age, the Condition of the Church of England, and the Message of the Church." The regular proceedings of the Congress began with the reading of a paper on "The Share of Yorkshire and the Columban Mission in the Christianization of England," by the Bishop of Bristol. The subject of "The Mutual Relations of Clergy and Laity" was treated under various aspects and as to various periods; historically by the Rev. Dr. Jessopp, and with reference to the question whether any alterations are needed in the relative positions to-day of the clergy and the laity by Mr. Justice Grantham, the Archbishop of Canterbury, and Mr. John Ken-sit, who rebuked the clergy and the bishops and archbishops for the prevalence of ritualism. Other subjects discussed were "Sunday Observance"; "The Mission of the Church in Relation to Imperial Policy"; "The Church's Duty as regards Various Aspects of Internal Affairs," such as (1) the responsibilities of capital and labor: (a) for healthy con-

ciety for the broadest toleration in ritual and sacerdotal doctrine, and by a meeting of the Church Congress Evangelical Union, at which Sir John Kennaway presided, and, maintaining exactly opposite views from Lord Halifax, spoke of the present tension of the crisis through which the Church was passing. Other addresses were made respecting the gravity of the situation and the character and persistency of the ritualistic movement; a resolution was adopted inviting all loyal Churchmen "prepared to uphold in their integrity the principles of the Church as received from apostolic times and authoritatively set forth at the Reformation to unite in furtherance of a memorial on the present crisis to be presented to the archbishops"; and a committee was appointed to promote the objects of the meeting, with authority to add to their number clergymen of other schools of thought who are loyal to the Reformation settlement. A united Christian meeting and conference of all denominations was held after the close of the Congress for the consideration of the subject "The Message of the Christian Church to the English Nation, and its Outlook." The Dean of Ripon presided. Addresses were made by the chairman, the Rev. Dr. Glover, of Bristol, the Rev. W. L. Watkinson (Wesleyan), Dean Farrar, the Rev. Dr. Horton, and Mr. George Harwood, M. P.

ARCHÆOLOGY. Scotland. A Crannog on the Clyde.—A crannog, or ancient lake dwelling, of a very remarkable type discovered by Mr. W. A. Donnelly on the Dumbrook foreshores of the ancient Colquhoun County, on the banks of the river Clyde,



GENERAL VIEW OF THE SITE OF THE CRANNOG.

ditions of labor, (b) moral and religious; (2) co-operation: (a) general, (b) its rules and prospects; "Church Music: In Cathedral, Town, and Country"; "The Unrest of the Age, General, Intellectual, Social, and Moral"; "Gains from Recent Criticism: Gospels, Acts, Epistles, and New Testament Apocrypha"; "How can the Church Congress be made more practically useful?" "The Message of the Church to the Heart of Man"; "The Devotional and Practical Use of Holy Scriptures"; "The Church and the World: 1, Interchange between Home and Foreign Missionary Service; 2, Evangelization of the World in this Generation; 3, Aboriginal Races; 4, Revival of the Missionary Spirit."

The meeting of the Congress was preceded by a meeting of the English Church Union, where Lord Halifax presented the claims maintained by that so-

has received much attention from British archaeologists on account of its being the first instance recorded of such a structure on tidal waters. On the advice of the eminent archaeologist Dr. Munro, author of the book "Historic Problems," who recognized the importance of the discovery at once, careful and thorough excavations were undertaken, with siftings of the refuse mound of the former settlement, by Mr. Donnelly, with the help of the Helensburgh Naturalist and Antiquarian Society. The result of the work has made it plain that there were design and execution in the building, with occupation and habitation over a long period. Positive evidence of fire is afforded in the shape of numerous firestones and calcined embers, and excellent indications of the condition of life at the period in the implements, ornaments, and tools

recovered. The crannog, situated 1,600 yards east of the castle rock of Dumbarton, and about 2,000 yards from Dunglass Castle, below high-water mark, is about 50 yards from the river at low tide, but is

village at Glastonbury, for example, yielded specimens of bronze fibulæ and other articles. The largest article found in the Dumbarton crannog was a canoe, 37 feet long and 40 inches beam, dug out of a single oak tree, which lay in what has proved to have been a dock. A curious ladder was also found here, the rungs of which were cut out of the solid wood, and which has somewhat the general appearance of a post-and-rail fence. The exploration of the site is much impeded by the rising of the tide, which covers the crannog for a considerable time every day. All the relics found, consisting chiefly of objects of bone, staghorn, jet, chert, and cannel coal, with some querns, the canoe, ladder, etc., have been placed in the museum at Glasgow.



PREHISTORIC IMPLEMENTS FOUND IN THE CRANNOG.

submerged when the tide is in to a depth of from 3 to 12 feet of water. The approach to the dwelling is from the north. The circuit of the crannog is 184 feet. The piles in the outer circle are of oak, which below the mud surface is still quite fresh. The transverse beams and pavements inside are of wood of the consistence of cheese (willow, alder, and oak), while the smaller branches are of fir, birch, and hazel, with bracken, moss, and chips. The stones in the outer circle and along the causeway leading to the dwelling place seem to have been set in methodical order, most of the boulders being about a lift for a man. The refuse mound extends for about 12 feet outside for the greater part of the circuit, and in this most of the bone and flint implements have been discovered. While this crannog does not differ in construction (of stones, wooden piles, and pavements) and shape from other well-known sites of the kind in Ireland and elsewhere, it is absolutely unique in two respects: first, in being situated on the shores of a tidal river; and, second, in that so far none but imple-

ments of flint and bone have been discovered. This would throw its occupation back to the Neolithic period, whereas crannogs are usually associated with the bronze age. The British lake



A PREHISTORIC CANOE.

France. The Ancient Walls of Paris.—At Paris, behind the Church of Notre Dame, excavations made for the construction of a private house have brought to light extensive remains of the ancient wall of the city. They were found at a depth of about 16 feet below the actual level of the ground, running on a line of 195 feet between the Quai aux Fleurs, the Rue Chenimesse, and the Cloître Notre Dame, in the face of the Ile St. Louis. The wall was a strong construction, nearly 10 feet thick. The material of which it was composed consisted of large stones taken from older Roman buildings. Several blocks, cut in the shape of steps and covered with inscriptions, are supposed to come, like the pieces found several years ago on the Parvis de Notre Dame, from the ancient amphitheater known as the Arènes of the Rue Monge. The inscriptions contain certain names of the citizens of the ancient Lutetia for whom those seats were reserved.

A Phœnician Inscription at Avignon.—A Phœnician inscription discovered at Avignon in 1897 is the first of the kind found in France, the origin of which is beyond dispute. A translation of it which has been published by M. Mayer Lambert in the "Journal Asiatique," shows it to be the epitaph of a married priestess of a divinity whose name has been unfortunately mutilated. It ends with an injunction against opening the tomb. The fact that it was not found at a port, but a considerable distance in the interior is to be remarked.

Rome. The Graffito of the House of Tiberius.—A graffito discovered by Prof. Orazio Marucchi in the house of Tiberius on the Palatine Hill, in Rome, has attracted much attention because of a suggestion that was made at the time



A PREHISTORIC LADDER.

ments of flint and bone have been discovered. This would throw its occupation back to the Neolithic period, whereas crannogs are usually associated with the bronze age. The British lake

that it might be a rude representation of the Crucifixion. It is drawn on the cement in one of the rooms that were used as cells for the soldiers and slaves, reaches to a man's height on the wall, and is marked by the style as of the first century, A. D. A confused group of many words is visible on the upper part of the drawing, and among them a name which in its damaged condition has been variously read *Crestus*, *Cresus*, *Crescus*, and *Crescena*. Following this are an instrument resembling a hammer, lines of verses, and disconnected fragments of lines. Below these writings is a design of posts or poles standing upright in the ground, with lateral supports at their feet, and a crossbar connecting them at the top. Below this crossbar are smaller individual crossbars, giving the erections the likeness of crosses, from the right arm of each of which hangs a rope held by a man standing on the ground, and on one of them is a figure seeming to hold a hammer. Other figures stand on ladders leaning against the uprights of the crosses. Names are written above the heads of some of the figures, of which *Nostumus*, *Eulogus*, and *Tertius* have been made out, with another, which is variously read *Pilatus*, *Piletus*, and *Filetus*. The subject of the *graffito* is not explained. The suggestion uttered at the first sight of the figures—that it is a representation of the crucifixion—is not insisted upon. Some persons have supposed that it represented a naval manœuvre or the preparation for the launching of a vessel; others regard it simply as a scaffolding on which men are at work.

Greece. The Jewish Synagogue at Corinth.—In the excavations at Corinth, in the valley east of the temple, under Prof. Rufus B. Richardson, a marble block about 3½ feet long was found, one of the broad sides of which was elaborately and peculiarly carved, having a band of molding below it as well as above. This was, of course, the original face. On what was once its upper side or edge was cut an inscription, mutilated at both ends, in letters about two inches high, running thus:

ΑΓΩΓΗΕΒ

After reflection the discoverer concluded that the letters represented and were all that was left of the words *Synagoge Ebraion*, and that the stone probably "came from the very synagogue in which the apostle Paul reasoned every Sabbath and persuaded the Jews and the Greeks." It is not likely, however, that this block marked the site of the synagogue. It had probably been removed from there, and even when built into the synagogue in the first place had been taken from some structure in the old city. That the placing of it in the synagogue was not its first use is indicated by the existence of the original front of the stone with the molding.

Egypt. Relics of the Earliest Dynasties.—A collection of antiquities from the excavations of the Egypt Exploration Fund at Denderah and of the Egyptian Research Account, under Mr. Quibell, at Hierakonpolis, exhibited by Mr. W. M. Flinders Petrie at University College, London, in July, included objects from the earliest dynasties. The history of Denderah as reflected in its cemetery was found to have had its beginning in the fourth dynasty, and to have included a flourishing age from the sixth to the eleventh dynasties, and then a later prosperity in the Ptolemaic or Roman times. While the remains of primitive kings hitherto found have been chiefly sepulchral, monuments of warfare and of history known to belong to the earliest dynasties have now, for the first time, been found at Hierakonpolis. The researches represented by these collections appear to fill a large intermediate space

between the aboriginal and the historical period, and extend our knowledge far back of any period it had distinctly reached before. Many of the most ancient objects are remarkable for their beauty and finish and their free and unconventional character. Some of Mr. Quibell's finds at Hierakonpolis are believed to date from before the fourth dynasty, or about 4000 B.C. The cemetery upon the desert yielded pottery of the types of the graves of Negada, of the "new race" described by Mr. Petrie in 1895, which go even behind the earliest kings. The later types are similar to those found in the tomb of Menes, and are assigned to the first dynasty. Among the objects found are slate palettes, mostly of the late square type, but one in the form of a scorpion, others with gazelles and giraffes and other animals, real or mythical, delineated with wonderful vigor and freedom. A trench found within the temple area was filled with ivory carvings, buried as offerings, much rotted and incrustated with lime, and believed to represent the second dynasty. The male figures have for the most part scanty pointed beards and sharp features, like the heads of the new race of prehistoric times, and are supposed probably to represent the Libyans, who then inhabited Egypt. Nearly all wear girdles, and most of them have a dagger sheath in front, while only one has the usual Egyptian kilt. The female figures are nearly all nude, with long wavy hair to the waist and two locks hanging in front over the breasts, and one of a dwarf bandy-legged type, familiar in figures of Ptah. Other figures are outlined upon ivory cylinders and plaques, one with the Ka name of King Nat-Met, holding a wand. Models of boats, bowls, and stone vases, maces, alabaster dishes and porphyry bowls, green glazed ware of very early date representing monkeys, pigs, calves, oryxes, pelicans, scorpions, and other animals, were also among the objects. The great limestone masses with relief sculptures are described as being of extraordinary interest and beauty. On one of them are several male figures, the king among them, beautifully wrought, and at the base hieroglyphics mentioning "oxen 400,000, goats 1,422,500, captives 120,000." A great palette in the part of the collection that went to the museum in Gizeh was represented in the exhibition in London. The figures upon it exhibit a curious diversity of human types, only one of which is of the later Egyptians. Two are bearded men with long hair, like some men shown in the tomb of Paheri at El-Kab. The design is very elaborate, with many figures of men and animals, and the tablet is regarded as an important historical monument of the early kings. Among the fruits, extending over a vast period, of Mr. Petrie's researches at Denderah, is a *stèle* of the third or fourth dynasty of a prophet of Hathor Suten-abu, which stood over an elaborately carved false door, the only sculpture found in the group of great brick *mastabas* of the earliest style. Large numbers of worked flints, mostly of palæolithic types, were picked up on the surface of the desert, but statues such as are common in the cemetery of the old kingdom at Memphis are rare at Denderah, and only one large one—of Prince Adu I—was found. The great *mastabas* of the princes of the sixth dynasty proved the most important in the cemetery. The series included Princes Mena and Adu under Pepi II, Prince Adu II, one nameless, Prince Merra, and Prince Beb. The catacombs for sacred animals, consisting of brickwork tunnels branching from main galleries, extended over a large area. A considerable quantity of blue glazed objects of temple furniture appeared, by the names, to belong to the eighteenth dynasty. In sculptures of Prince Merra, with his wife Beba and his daughter Dudu-erchetsa, of the late sixth or early seventh dynasty,

the style, though becoming degraded and clumsy, retains the character of the old kingdom. Besides many minor objects of the old and middle kingdoms, a beautifully carved group of Mentuhotep, son of Beba, and his wife Nefermeant, daughter of Hepy, probably of the eleventh dynasty, is mentioned. The man's head is lost, but the woman's is equal to the best work of the old kingdom.

The Tomb of Osiris.—In excavations begun in 1896 at Abydos in search of relics of the worship of Osiris, of which he had already found some traces, M. E. Amélineau reached a point within three or four metres of a large tomb. His work there was then suspended in consequence of his occupation at other points. The hill under which the tomb was hidden, 180 metres long by 160 metres wide, and between 7 and 8 metres high, was composed of "millions upon millions" of small jars and earthen vases, along with some large ones mixed up with sand and a few rare pieces of stone. From the first days of the new excavations, begun in December, 1897, pieces of pottery of all shapes, entire or broken, were found, bearing inscriptions written in hieroglyphic or hieratic signs. Large numbers of pieces mentioned the name of Osiris, and a smaller number bore the name of Amon-Ra. A few of them mentioned the House of Osiris. These discoveries impressed M. Amélineau so strongly, he says, that as early as Dec. 2 he recorded in the diary he kept of his excavations the belief that he was going to come across the tomb of Osiris. The tomb was a large rectangle in shape, and surrounded on its four sides by series of tombs numbering about 200 in all. Moreover, the necropolis, known in the country as Om-el-Gaab-el-Gharby, contained the sepulchres of persons of very high rank, among them kings whose *steles* had been discovered by M. Amélineau two years previously. On the 1st day of January the "fortunate staircase" mentioned in the text concerning the House of Osiris was discovered, and the next day a granite monolith in the shape of a bud decorated with the head and legs of a lion, on which was lying a mummy bearing what is known as the white crown, and holding in its hands, which came out of the case, a flagellum and a pastoral cane. Near the head were two hawks, and two more were at the feet. The head was designated by the inscription, "Osiris the Good Being." The hawks were labeled "Horus, avenger of his father"; and the goddess Isis was also designated by her name. The monument was 1.70 metre, or 5½ feet, in width, and about a metre (3 feet 3 inches) in height. The tomb itself had the shape of a dwelling, with a courtyard in front. It contained 14 rooms and the staircase, 5 rooms to the north, 5 to the south, and 4 to the east, while the western face was open. There were evidences of fire in the tomb, and it seemed to have suffered from spoliators; and for these reasons the results of the excavations are not so complete as was desirable.

The "Journal Egyptien," in publishing M. Amélineau's letter, observes that M. Mariette spent much time and money at Abydos in searching for the conventional tomb of Osiris. The discovery of M. Amélineau, astonishing as it may appear, is a possibility and in accordance with the records of all the ancient authors and the belief of most Egyptologists. The tomb spoken of in connection with this discovery and with M. Mariette's search is a conventional tomb, supposed to have been instituted by the priests in very ancient times, and not any real tomb in which the god was actually buried. It is possible that the tomb discovered may be proved, after more complete examination of the epigraphic documents exhumed, to be a sanctuary to Osiris erected during one of the later dynasties.

Tombs of Amenophis II and other Kings.

—It was announced in April that M. Lovet had discovered and opened the tomb of Amenophis II, of the eighteenth dynasty, and found the mummy of that king intact, and with it the mummies of Thothmes IV, Amenophis III, Set Nakht, Seti II, and Rameses IV, Rameses VI, and Rameses VIII. The discovery marks the first instance in which the body of an Egyptian king has been found actually in the tomb prepared for him, in other instances the tombs having been found without the bodies or the bodies found removed from their tombs. In this case the valuable objects had been taken away, but the tomb was in perfect preservation, with the paintings fresh and the sarcophagi and chaplets of flowers in excellent condition. In the first chamber of the tomb the body of a man was found bound on a richly painted boat, his arms and feet tied with cord, a gag in his mouth, and wounds in his breast and head; and in the next chamber three other bodies of persons who had been killed by violence. It is believed that these bodies represent human sacrifices offered at the time of the royal burial.

Among the relics discovered by Mr. Petrie in his explorations of 1896, and described in his book on "Six Temples of Thebes," was a wine jar dated in the twenty-sixth year of Amenophis II, vindicating the statement of Manetho that this king reigned twenty-five years and ten months, and refuting M. Maspero's theory that his reign was a short one. "It is indeed wonderful," Mr. Petrie remarks, "how constantly Manetho's statements, after a long period of discredit, are justified by the monuments, and how accurate his records have lately proved."

Early Remains at Deshasher.—In the explorations of Deshasher, nearly opposite Beni Suef and near the site of the ancient Heracleopolis Magna, by Prof. Petrie in 1897, an account of which is published in the fifteenth memoir of the Egypt Exploration Fund, a portrait statue of Prince Neukheft-Ka, of the fifth dynasty, was recovered, the pleasing expression, European features, and execution of which bear witness to the high level attained by Egyptian art at that early age. Here also were found some of the oldest amulets in the world, differing somewhat from those in use in the twenty-sixth dynasty, which were considered the earliest known examples. Some excellent bas-reliefs of about a century later than the statue depict scenes in a war between the Egyptians and another people which are very spirited and dramatic, and so far the earliest of their kind. One of them represents the siege of a town defended almost entirely by women. A partly successful escalade headed by bearded archers has taken place, but the assailants are all disposed of by the women as they get over the ramparts, while outside a round-capped officer is seen leaning on his staff and directing the efforts of two soldiers who are mining the wall with pikes. Another discovery was that of many mutilated skeletons, the bodies having been dismembered before burial and each part wrapped separately in a linen cloth. Mr. Petrie suggests that this may be a "relic of cannibalism."

Development of Egyptian Funereal Art.—By a change in arrangement the mummies and coffins in the British Museum have been made more accessible, and may be seen to better advantage. The museum preserves about 44 mummies and 80 coffins, besides covers of coffins and various fragments, which, taken together, represent a period of about four thousand years. The oldest mummified human remains in the collection are those of Mycerinus, the builder of the third pyramid of Gizeh; and the most modern, those of a lady whose name is unknown, with her three children, who

were mummified about A. D. 400. The cover of the coffin of Mycerinus is inscribed with a text that was already several thousand years old in his time and describes the king as "living forever," a phrase which is cited in favor of the hypothesis that the Egyptians believed in a future life. Close by the remains of Mycerinus are six fine coffins, of, perhaps, about a thousand years later than he. The most important of these is the coffin of Amamu, which is inscribed within and without with a very ancient version of the Book of the Dead. The skeletons of Heni and Khati in this group are also of considerable interest, the skull of Khati being marked with two curious indentations on the upper part, one on each side, and both being free from indications of gout and rheumatism, from which Mycerinus seems to have suffered. Two coffins next to these, painted in bright colors, and "differing in every way from the somber rectangular coffins of the Amamu class," are of the twenty-second dynasty, and form part of a large collection of coffins of the priests of Amen, the god to whose power the Thebans ascribed the victory which their king, Sekenen Ra, gained over the king of northern Egypt. Amasis I enlarged the shrine of Amen at Thebes and made provision for his priests; his successors in the eighteenth and nineteenth dynasties enriched the shrine and conferred large benefits on the priests; and (probably) Amenophis I founded the college of Amen Ra and endowed it sufficiently to support a considerable number of Egyptians of high rank who as priests and priestesses, superintended the education of youth, the writing of the Books of the Dead and the embalming of the dead. To this confraternity we owe the splendid Books of the Dead of the eighteenth dynasty and the preservation of the funeral texts which were in use during the early dynasties at Heliopolis and Memphis, as well as several hundreds of very fine coffins. Its power was enormous, and its gradual growth from B. C. 1700 to B. C. 1000, when its chief priest seized the government, is described as one of the most instructive portions of Egyptian history. The progress of the confraternity can be plainly seen in the coffins. At first (about B. C. 1650) the color work on the coffins was done by the best artists, and the texts were written by the most careful scribes; two or three hundred years later we find careless painting and writing, inferior woodwork, and incomplete pictures and texts. About B. C. 1000, when the high priest became king, the colors on the coffins are gaudy, the varnish is daubed on, and new colors appear, with a number of gods and mythological passages never found on the coffins of the oldest time. The places of the old texts are usurped by what is called the Litany of the Sun, and scenes illustrative of new mythological conceptions begin to appear. From this it is clear that the confraternity of Amen did not abide entirely by old standards in religious matters. The British Museum has many interesting examples of mummies of the period from B. C. 900 to B. C. 600, swathed in linen as fine in color and texture as any known. About this time mummies were placed in cartonnage cases, and the highly colored scenes were occasionally defaced by daubing with bitumen. This is supposed to have been done in troubled times to prevent the tomb robbers from identifying the dead by the texts written upon them. A little before the rule of the twenty-sixth dynasty the mummies were covered with *fatence* heads. The shape of the coffin changed considerably and a style of decoration peculiar to the time arose. The huge coffins of the fourth and fifth centuries before Christ are uninteresting, and it seemed as if the funeral artist endeavored to make up in size for what he lacked in skill; the mummies of the period, too, are of little

interest. At the beginning of the Ptolemaic period gold was freely used on the faces of the coffins, which are now identical in shape with the stone coffins of Tabnith and Eshmunazer found at Sidon. During the same period the coffins became much plainer and more decoration was bestowed upon the mummy. Brightly painted and gilded cartonnage cases were laid over it. The plaques, on which are painted figures of the gods, were made in hollow work. About the time of the Romans the use of coffins declined and the mummy, inclosed in a painted cartonnage case, or smothered in painted bandages, was laid upon a rectangular board beneath a vaulted cover. Both board and cover were brightly painted with colors which are characteristic of the period. In the case of some mummies the swathing is a work of art, but usually those which belong to this period are shapeless bundles. In the first and second centuries of our era a portrait of the deceased was painted in colors upon a board which was fastened to the swathings of the mummy. In a very fine group of cartonnages of the members of one family, consisting of a man, his two wives, and several children, the portrait of the man is of considerable interest on account of the style of decoration and the Demotic inscription upon it, while the cartonnages of the women give an exact representation of their appearance during life as to height and figure, dress, ornaments, etc. These cases are probably unique, and their value archæologically is much enhanced by the fact that a date may be assigned to them which can not be far wrong. In the fourth and fifth centuries of our era models of the heads and necks of the deceased, made of painted plaster, were placed on the covers of coffins immediately over the heads of the mummified dead. While specimens of extremely ancient mummifications have not yet been acquired by the museum, we can in this collection, says the writer of a description of it in the London "Times," "examine in a way never before possible all the various developments of Egyptian funeral art and observe the persistence of its chief characteristics during a period of about four thousand years. We may also see that from first to last the Egyptians everywhere held firmly the belief in the resurrection and in immortality which had been handed down to them as an assured thing in the early days of their marvelous civilization. They mummified their dead and performed elaborate rituals on their behalf and hewed wonderful tombs for them, not from motives of pride and vanity, but as the result of a living faith in a world beyond the grave and of a hope of the life everlasting which is to be lived in a spiritual body after the judgment, along with the beatified, in the kingdom of Osiris."

The Oxyrynchus Papyri.—A selection from the papyri found at Oxyrynchus by B. F. Grenfell and A. S. Hunt in 1897 was published by them with notes, and in most cases an English translation in a quarto volume, at the Oxford University Press. Including the *Logia*, or sayings of Jesus, which was described in the "Annual Cyclopædia" for 1897, the volume contains 158 documents printed in full, descriptions of 49 others, and mentions 5 duplicates, recording therefore the contents of 212 manuscripts and fragments. Six of the documents, including the *Logia*, are theological. One of them, a bit of vellum, not a papyrus, contains a few verses from the gospel of Mark, belonging to a book probably written in the fifth or sixth century, the text of which agrees with the received text. Another has about two thirds of the first chapter of Matthew, supposed to date from the third century, and to be therefore older than any previously known manuscript of the gospel. It apparently tends to support the text of Westcott and Hort

rather than the received text. Nine of the manuscripts are new classical fragments. One of these is a part of a Sapphic ode, supposed to be by Sappho herself, in a badly mutilated condition. As represented in the attempted restoration by Prof. F. Blass, of Halle, it appears to have belonged to an ode in which the poet sought reconciliation with her brother Charaxus, whom she had offended. A fragment of a work on chronology includes the time of Alexander the Great. The death of the great conqueror is recorded two lines after a reference to the Olympic games. A chapter on rhythmic art, ascribed to Aristoxenus, has the peculiar interest that not one of the lyric passages cited—which are unfortunately all brief—in support of the author's argument is from extant poems. In the fragments from known poets and prose authors (three of them Latin), all dating from the Roman era in Egypt (not earlier than the first century, A. D.), the readings agree closely with those of the better mediæval manuscripts, and thus give an additional proof of the great trustworthiness of our Greek texts. The largest part of the collection consists of private papers—contracts, bills, children's exercises, and other documents, "whose very triviality gives them now a peculiar interest." These are arranged in two groups: (1) papyri of the first four centuries, and (2) papyri of the sixth and seventh centuries. They include wills made by persons sane and in their right minds and duly attested by witnesses, in one instance as many as six, registrations of live stock and slaves, leases of lands, notes from and to bankers, minutes of a trial made by the presiding judge, reports of public doctors, papers concerning the sale or emancipation of slaves, exemption from military or other public service, the return of wills to testators for revocation, a cook's monthly bill, private letters, and invitations. These last are of peculiar interest on account of the illustrations they afford of the social and domestic relations and customs of the people of the time. In one, "Cheræmon requests your company at dinner at the table of the Lord Serapis to-morrow, which is the 15th, from the ninth hour" (about 4 o'clock); in another, "Herais asks you to dine to celebrate the marriage of her children at her house to-morrow, which is the 5th, from the 9th hour." The latter invitation does not necessarily point to the marriage of two couples on the same day, but to the intermarriage of a son and daughter, which was common in Egypt. One of the letters is from a lady in Oxyrynchus requesting a friend to release a number of articles from pawn: a white veil, a handkerchief, two bracelets, a necklace, a large tin flask, etc. At the end the writer prays for her friend's health and sends greetings to a person named Aia and to all her friends. Another lady's epistle is a letter of condolence, composed with a feeling of helplessness. But, after all, what can "one do in the face of such things? Therefore comfort yourselves. Farewell." In a long business letter the writer sends a key which he would have sent earlier had there been a blacksmith in the neighborhood. He also sends six quarts of good apples, and desires his correspondent to buy him a silver seal and match a pattern of white violet color. In the postscript he adds that he wants an obol's worth of cake for a nephew. A boy in a letter to his father, who is going to Alexandria, wants to go with him, and threatens: "If you will not take me with you I will not write you a letter, I will not speak to you, I will not say good-by to you. . . . Send me a lyre, I beg of you. If you don't, I will neither eat nor drink. There now, I pray for your health." This letter betrays its boyish origin in its bad spelling and defective composition. Some of the legal documents contain

curious personal descriptions of the parties concerned. "I am forty-four years of age," writes a man in his will, "I have a scar on the left side of my neck." A woman registering a slave is described as "about fifty years of age, of middle height and fair complexion, with a long face and a scar on the left foot." The rent of a piece of ground was to be paid partly in kind, partly in money. The kind payment was to consist of a fixed quantity (subject to allowance for a bad season) of fresh, clean, unadulterated wheat with no barley in it, measured with a bronze-rimmed measure. In some instances such statements appear as "I, Theon, the son of Theon, have signed for him, as he does not know letters."

Messrs. Grenfell and Hunt continued their examination of the papyri during the summer of 1898. Among the new additions to classical literature to Nov. 1 were a considerable fragment of Menander's *Περικειπούμεν*; part of a treatise on meters; some early scholia on the twenty-first book of the *Iliad*, written by the grammarian Ammonius; and some fragments of a tragedy on the subject of Niobe, perhaps by Sophocles.

Ancient Underground Canals.—In the prosecution of engineering works near Tunis two very large underground vaulted canals have been discovered directed toward the ruins of Carthage. While considerable labor will be required to lay bare the whole work, the part already exposed reveals large subterranean chambers containing riches which may have been intended for statues. Large stairways of red marble give access to them.

ARGENTINE REPUBLIC, a federal republic in South America. The President is elected for six years by electors chosen in the several provinces. The national Congress consists of a Senate of 30 members, 2 from each province, elected by the legislatures, and 2 from the capital district, elected by an electoral college, and a House of Deputies composed of 86 members, elected in separate districts by direct popular vote. Vice-President José E. Uriburu was proclaimed President on Jan. 22, 1895, for the remainder of the term ending Oct. 12, 1898, upon the resignation of Dr. Saenz Peña. Dr. Rafael Igarzabal was elected Vice-President in September, 1897. The Cabinet at the beginning of 1898 was composed as follows: Minister of Foreign Affairs, Dr. Amancio Alcorta; Minister of Finance, Dr. W. Escalante; Minister of Justice, Worship, and Public Instruction, Dr. Benjamin Belaustegui; Minister of War and Marine, Lieut.-Gen. N. Levalle.

Area and Population.—The area of the republic is 1,778,195 square miles, that of the provinces being 515,815 and that of the territories 1,262,380 square miles. The population enumerated in the census of May 10, 1895, according to the revised returns, was 3,954,911, of which number 3,851,542 were in the provinces and 103,369 in the territories. The population consisted of 2,088,919 males and 1,865,992 females. There were probably 60,000 persons not enumerated, including 30,000 Indians, and at least 50,000 Argentinians were living or traveling abroad. Buenos Ayres, the capital, had 726,917 inhabitants on July 1, 1897, of whom more than 346,000 were of foreign birth. The total number of foreigners in the republic at the time of the census was 1,004,527.

Finances.—The revenue of the Federal Government for the year ending March 31, 1896, was \$32,052,951 in gold and \$29,468,174 in paper. The expenditure amounted to \$46,891,221 in gold and \$92,122,343 in paper. For 1897 the expenditure was estimated at \$19,957,402 in gold and \$83,335,168 in paper. The estimated revenue for 1898 was \$32,049,454 in gold, chiefly from import and export duties, and \$40,546,009 in paper from internal taxes,

railroads, stamps, post office, licenses, land tax, etc. The estimated gold expenditure was \$19,957,402, of which \$17,619,362 was for the debt, \$2,025,000 for public works, and \$313,040 for foreign affairs; estimated expenditure in paper currency, \$92,159,745, of which \$21,710,098 was for the interior and Congress, \$592,648 for foreign affairs, \$6,709,933 for finance, \$5,552,422 for the national debt, \$8,824,577 for temporary debts, \$13,062,741 for justice and public instruction, \$16,581,004 for the army, \$10,626,319 for the navy, and \$8,500,000 for public works. The premium on gold in the middle of 1898 was 175 and over.

The national debt in the beginning of 1897 amounted to £96,635,680 sterling, consisting of an external debt of £63,880,290, \$91,861,000 of internal debts payable in gold and \$82,374,994 payable in paper. The provincial debts, including unpaid interest, amounted in 1895 to \$137,261,866 in gold and the municipal debts to \$24,596,422 in gold. A bill was passed in 1896 providing for the assumption of the provincial external debts by the Federal Government. The railroad guarantees were also assumed in accordance with the terms of another

gallons of alcohol. The vineyards cover 71,000 and the sugar plantations 82,000 acres. There were 21,702,000 horned cattle, 74,380,000 sheep, 4,447,000 horses, and 3,885,000 goats, etc., in 1895. In 1896 there were 367,230 cattle slaughtered. In 1897 there were 164,414 slaughtered and 73,867 shipped alive to England, where 345,217 sheep were also landed, being 68 per cent. of the total year's produce. The exports of frozen mutton, nine tenths of it for the British market, were 50,894 tons, showing an increase of 5,789 tons over the shipments of 1896. The exports of frozen beef show an increase year by year, but those of jerked beef are declining to a much greater extent. Efforts have been made to establish a large export trade in butter, but the shipments in 1897, amounting to 1,319,364 pounds, show a decrease of nearly a third, while the export of cheese was only half as great as in the preceding year, and a fifth of that of 1895. The export of Argentine wheat in 1897 was only 101,845 tons, one tenth of the quantity exported in 1895. The exports of corn were 374,942 tons, one fifth as great as in 1896 and less than half as great as in 1895. The exports of linseed was 162,477 tons, compared



THE MUSEUM IN LA PLATA.

act of Congress. A deficit in the revenue for 1897 was covered by an internal loan of \$39,000,000.

The Army and Navy.—The Argentine regular army numbers 29,513 officers and men. The National Guard is estimated at 480,000. It comprises the whole able-bodied male population, which receives military instruction four days in every year, while the young men first inscribed at the age of twenty are drilled in camp for two months.

The navy consists of the first-class cruisers "San Martin" and "Garibaldi," bought of Italy, 3 other armored cruisers, 3 second-class cruisers, 2 monitors, 11 small cruisers and gunboats, 4 destroyers, and 12 first-class and 10 third-class torpedo boats.

Commerce and Production.—The Argentine Republic is one of the greatest grazing countries in the world, and is rapidly becoming a great agricultural country also. Of a total cultivable area of 240,000,000 acres 15,000,000 acres were tilled in 1895. The production of wheat in 1897 was 1,500,000 tons, raised on 5,500,000 acres. The sugar crop in the northern provinces amounted to 110,000 tons. There were 42,267,000 gallons of wine and 10,582 tons of raisins produced in 1895, also 478,800

with 276,443 tons in 1895. The exports of wool were 204,571 tons, compared with 187,619 tons in the preceding year.

The total gold value of imports for 1897 was \$98,288,948, of which \$36,392,057 came from Great Britain, \$11,114,102 from Germany, \$11,019,576 from France, \$10,943,038 from Italy, and \$10,101,714 from the United States. The total value of exports was \$101,114,102, of which \$22,999,019 went to France, \$14,047,135 to Germany, \$12,999,019 to Great Britain, \$8,934,829 to Belgium, \$8,685,187 to Brazil, and \$8,321,611 to the United States. In 1896 the total value of imports was \$112,058,000, and of exports \$115,671,000. The imports of coin and bullion were \$6,063,345, and the exports \$2,178,891. Of the value of merchandise exports \$70,534,040 represented animals and animal products, \$36,963,480 agricultural produce, \$6,169,105 manufactured products, \$1,268,663 forest produce, \$352,840 mineral products, and \$382,836 various products. As compared with 1896 there was a falling off in the total trade of \$30,000,000, about equally divided between imports and exports. The cause was a failure of crops. The cattle exports

were 408,126 head in 1895, 382,539 in 1896, and 238,121 in 1897; but while the total decreased, the exports to Europe show a progressive gain.

Navigation.—There were 11,830 vessels, of 7,115,467 tons, entered at Argentine ports from foreign countries during 1896, of which 7,791, of 6,331,879 tons, were steamers, and 4,039, of 783,588 tons, sailing vessels. The merchant navy in 1895 consisted of 75 steamers, of 21,613 tons, and 125 sailing vessels, of 28,241 tons.

Railroads, Posts, and Telegraphs.—The length of railroads in operation in 1896 was 8,998 miles. The capitalized gold value was \$510,643,296, of which \$56,331,063 represented lines belonging to the confederation, \$83,859,062 provincial lines, \$113,311,995 guaranteed lines, and \$257,141,178 private lines. The gross earnings in 1896 were \$31,238,326, and expenses \$15,934,466.

The total length of telegraph lines in 1896 was 25,345 miles, with 59,060 miles of wire, of which 11,023 miles of line and 23,572 of wire belonged to the Federal Government, 7,070 miles of line and 18,717 of wire to the railroads, 4,428 miles of line and 7,462 of wire to telegraph companies, and 2,824 miles of line and 9,309 of wire to other companies and individuals. The number of dispatches in 1896 was 4,953,887.

The number of letters and packets that passed through the post office during 1896 was 177,183,190, of which 19,871,664 were foreign. The receipts from the postal service and Government telegraphs were \$30,069,799, and expenses \$27,169,020.

Political.—Gen. Julio Roca was proclaimed President and Dr. Quirino Costa Vice-President for the term beginning Oct. 12, 1898. A treaty of arbitration between Italy and the Argentine Republic was signed at Rome on July 23. In any dispute each government will choose a judge, who shall not be a citizen or resident of either of the contending countries, and a third judge, the president of the arbitration court, will be chosen by the two others, or, in case of their disagreeing, by the President of the Swiss Confederation or the King of Sweden and Norway. There shall be no appeal from the decision of the tribunal, the execution of which is left to the honor of the signatory powers. Under special conditions, however, the award may be open to revision.

In August Congress voted new internal duties on alcohol, wine, and oils, calculated to produce \$8,000,000 a year. The Government asked Congress to authorize the sale or lease of the national railroads.

The Chilian Boundary.—The dispute with Chili regarding the boundary in Patagonia became critical on several occasions in 1898, and both governments made military and naval preparations. The boundary commissioners were unable to agree upon the line between the Argentine Republic and Chili because the treaties of July 23, 1881, and Aug. 22, 1883, and the protocol of May 1, 1893, confounded the hydrographical with the orographical principle of delimitation. The protocol says that all lands, lakes, and rivers east of the highest crests of the Andes which divide the waters shall belong forever to the Argentine Republic. Since in this region low elevations in the valleys form the water-parting oftener than the ridges of the cordillera, while the Andes themselves consist of a dozen parallel chains, the treaty contradicts itself and is incapable of being fulfilled without an agreement as to its meaning. On April 27, 1896, the two governments formally agreed to submit any unsettled difficulties to the award of the British Government. Dr. Moreno met Barras Arana, the Chilian commissioner, on Aug. 25, and each drew up a general line of demarcation in accordance with the views of his Government and the knowledge obtained in recent explorations on the spot, as was agreed between the two governments in

May. The boundaries submitted by the two commissioners were irreconcilable. The Argentine Government informed the British Government that the whole question would be submitted to arbitration before receiving a note from the Chilian Government requesting a prompt reference. The Argentine Chamber authorized the Government to mobilize 80,000 men so as to be prepared for a failure to secure a pacific solution. The Chilian Government also decided to mobilize 50,000 men and obtained credits to the amount of \$22,000,000, to be met by additional taxation. Chili proposed unrestricted arbitration, but the Argentine Government still held out for the strict application of the contradictory terms in the treaties.

ARIZONA, a Territory of the United States, organized Feb. 14, 1863; area, 113,020 square miles. The population, according to each decennial census, was 9,658 in 1870; 40,440 in 1880; 59,620 in 1890; and estimated at 101,000 in 1897. Capital, Phenix.

Government.—The following were the Territorial officers during the year: Governor, Myron H. McCord; Secretary, Charles H. Akers; Treasurer, C. W. Johnstone; Auditor, G. W. Vickers; Adjutant General, R. A. Lewis; Attorney-General, C. M. Frazier; Superintendent of Education, A. P. Sherman; Chief Justice of the Supreme Court, Webster Street; Associate Justices, Richard E. Sloan, Fletcher M. Doan, George R. Davis; Clerk, Lloyd Johnston—all Republicans.

Finances and Valuations.—In his report to the Secretary of the Interior for the fiscal year of 1897 Gov. McCord stated that the treasury was in a prosperous condition. The bonded and floating debt at the first of the year aggregated \$965,588.12, leaving the net debt of the Territory \$885,758.19, the cash on hand being \$79,829.93. The aggregate value of lands was \$9,678,273.33, and the value of improvements thereon was \$4,905,418.97. Railroad property was valued approximately at \$5,139,669.60. More than 100,000 head of cattle were imported in the year, of which 12,749 were admitted free of duty. Internal-revenue collections during the year aggregated \$19,900. Goods were exported during the year aggregating in value \$1,082,414, an increase of \$90,635 over the previous year. The total valuation of all assessable property was reported for 1898 at \$31,473,359.96. Average valuations were as follow: Lands, \$1.56 per acre; horses, per head, \$18.24; mules, \$22.73; cattle, \$10.41; goats, \$2; hogs, \$2.70; asses, \$26.77; sheep, \$2; the average valuation for each mile of railroad was \$5,071.02.

Law-abiding.—It is claimed by the "Mining and Industrial Reporter" that the Territory is one of the most law-abiding regions of the country; that life is as safe in the Territory as in New York or Chicago, infractions of the law in Arizona being less in proportion to population than in either of the cities named; that telegraphic reports of crimes in the Territory do great injustice.

Education.—Gov. McCord's report gave the status of the public schools as follows: Enrollment, 13,361; school districts, 227; teachers, 354; children of school age at the last census, 17,427; average length of school term, 6.37 months; average salary paid teachers, \$68.69; amount paid in salaries of teachers, \$155,991; total expenditures, \$205,948; valuation of school property, \$445,379.

Mining.—Gold, silver, lead, copper, iron, lime, and coal are mined. The gold output for the year last reported was valued at \$5,200,000; silver, 1,650,530 ounces, which gave a return of \$1,105,855; copper, 71,210,331 pounds, valued at \$7,121,033; and lead, 21,255,000 pounds, valued at \$531,375. One gold mine is quoted in value at \$50,000,000, another at \$30,000,000, and there are many smaller properties that range in quoted value from \$7,000,000

down. The mining counties most noticeable in Territorial newspaper reports are Gila, Mohave, Pima, and Yavapai. In Mohave one mine was reported to be "producing so much \$100 gold ore that there are not teams enough to haul it." The production of copper is said to be attracting as much attention as that of gold. Hubernite, a variety of wolfram, used in preparing steel for fine-edged tools, has been discovered in the Dragoon mountains.

Agriculture, etc.—The report of the Governor states that the aridity of the Territory does not prove a bar to high agricultural development. The farming lands embrace about 1,000,000 acres, more than 260,000 acres of which are under canal irrigation, the only obstacle to the extension of the irrigating system being the lack of water. Lands are being brought under cultivation as rapidly as the development of water will admit. The notable increase in population during the past few years in the Salt River and Gila valleys, a population consisting almost entirely of farmers, is expected to result in great agricultural development. Among the most promising products new to the Territory are sugar beets, canaigre, ramie, cotton, dates, tobacco, sugar cane, and peanuts; corn is a staple. It is estimated that 40,000,000 acres are suitable for grazing, a large part of which is used. It is said that in portions of the Territory corn and other cereals thrive without irrigation; that corn planted at the right season and properly cultivated ought to mature without irrigation in any part of the Territory; that the Papago and Navajo Indians have long been successful in this system of cultivation. It has been demonstrated that certain grains, such as the Egyptian maize, and certain forage plants, will come to maturity with the natural rainfall. It is contended by investigators that much more water is now used in the raising of crops by irrigation than is necessary, and that in the near future double the present irrigation area will be worked with the quantity of water now used. A great advance in agriculture and horticulture is looked for from the introduction of growths requiring comparatively little water, such as dates and olives. At the last meeting of the Arizona Agricultural Association it was shown that many varieties of the grape can be successfully raised. About 100 varieties are under cultivation at the experiment station. The sugar-beet is extensively raised, and cauliflower is beginning to be largely cultivated. In the raising of strawberries "smudging" has been resorted to to keep off frost. When freezing weather comes, piles of old straw and dry manure are set on fire about the vines, which are thus covered with a fog of smoke, and at the same time ditches around the vines are filled with water. Attention has been called by a newspaper to "the largest sweet potato ever raised, the weight being 40 pounds."

Statehood.—The question of statehood for the Territory was settled for the present at Washington in January, 1898, by the House Committee on Territories rejecting the Arizona, New Mexico, and Oklahoma bills.

Onyx.—A block of onyx of the translucent sea-green variety, weighing 13,150 pounds, has been taken from the Big Bng quarries.

ARKANSAS, a Southern State, admitted to the Union, June 15, 1836; area, 53,850 square miles. The population, according to each decennial census since admission, was 97,574 in 1840; 209,897 in 1850; 435,450 in 1860; 484,471 in 1870; 802,525 in 1880; and 1,128,179 in 1890. By estimates based on the school census of 1897 it was 1,302,185. Capital, Little Rock.

Government.—The following were the State officers during the year: Governor, Daniel W. Jones;

Secretary of State, Alexander C. Hull; Treasurer, Ransom Guley; Auditor, Clay Sloan; Attorney-General, E. B. Kinsworthy; Superintendent of Education, Junius Jordan, who resigned, Sept. 9, and was succeeded by J. W. Kuykendall, who served till J. J. Doynes term of office began, Nov. 1; State



DANIEL W. JONES, GOVERNOR OF ARKANSAS.

Land Commissioner, J. F. Ritchie, succeeded, Nov. 1, by J. W. Colquitt; Commissioner of Mines, Manufactures, and Agriculture, W. G. Vincenheller, succeeded, Nov. 1, by Frank Hill; Adjutant General, A. B. Grace; Chief Justice of the Supreme Court, Henry G. Bunn; Associate Justices, S. P. Hughes, C. D. Wood, B. B. Battle, J. E. Riddick. All are Democrats.

Finances.—The valuations of taxable property this year show the total value of real estate to be \$117,873,253, of which \$12,747,515 is railroad real estate, \$73,934,207 is the value of farming lands, and \$31,191,531 is the value of town and city lots. The valuation of personal property amounts to \$59,552,873, of which \$3,562,479 is of rolling stock of the railroads. The number of persons liable to pay poll tax is 263,685.

An agreement was reached this year by which the debt of the State to the United States is to be settled. (See "Annual Cyclopaedia" for 1897, pages 30, 31.) The State is to pay \$572 at present and provide for the payment of \$160,000 in 1900. The bill provides that the State shall release to the railroad companies or their assigns all title to the 273,000 acres of land that have been in dispute, thus quieting the titles of settlers. It became a law by the signature of the President in April.

A suit involving the right of the State to assess the Western Union Telegraph Company, Pacific Express Company, and Pullman Palace Car Company for taxation, was decided in favor of the State, Nov. 18, 1897. The amount the State will recover is about \$62,000, which will be distributed—one third to the State, one third to the counties in which the three corporations do business, and one third to the school districts.

The disbursements of the State Treasurer from Sept. 1, 1897, to Sept. 30, 1898, amounted to \$1,387,887.42.

Pensions ranging in amount from \$25 to \$100 a year are given by the State to 1,178 Confederate veterans.

Education.—The annual enumeration of the school population—children between the ages of six and twenty-one years—as published in December, 1897, shows an increase of 2½ per cent. over that of the preceding year. In enrollment in the schools there is an increase of 3¼ per cent., and in the aver-

age daily attendance, an increase of 14½ per cent. The total school population is 463,676. The amount of the annual apportionment to the schools in August was \$343,038.10.

The teachers of the State have united with those of Texas and Colorado in the organization of a Chautauqua association, which has purchased 20 acres near Boulder, Col., at the base of the Rocky mountains, for its buildings.

The State University graduated a class of 15 in June, and Ouachita College one of 6 in the regular course and 6 from special departments. From the medical department of the university 19 were graduated in April, and 9 in June from the law department of the Arkansas Industrial University, at Fayetteville.

At the School for the Blind 4 boys were graduated in June with diplomas for piano tuning and 2 from the Industrial Department.

The Deaf-Mute Institute has about 235 inmates. The buildings are on a tract of 90 acres on a high ridge overlooking Arkansas river. With the products of the gardens and shops the institution has become nearly self-supporting.

In accordance with a resolution of the Legislature in 1895, the Representatives of Arkansas in Congress requested that the compact entered into between the United States and the State of Arkansas with regard to the "sections of land No. 16 in every township," or an equivalent section, granting the proceeds of the sale of such lands "for the use of the inhabitants of such township for the use of the schools" be so modified that the funds arising from the sale of the lands shall be placed in the State treasury and applied to school purposes without regard to the townships where the sections sold were situated, but, like other school funds, apportioned according to the number of children of school age. The act of modification was passed by Congress in March.

The Insane.—The Asylum for the Insane comprises buildings with a capacity for 600 patients, and more than 500 are cared for now. It is on a height 2 miles west of the center of the capital city. The annual appropriation for current expenses is about \$88,000.

Criminals.—The State Penitentiary has about 990 inmates, of whom 10 are women, 7 colored and 3 white. The life prisoners number 15, and all of them are colored; 66 per cent. of the prison population is colored. A reform farm camp has been established at Palarm, to which prisoners under twenty-one are sent. Eight leased farms are worked by the convicts on the share-crop system, and this is reported to have resulted profitably. A convict farm is to be bought by the State and paid for by the products of its cultivation.

The law requires that the State shall furnish convicts with tobacco, the supply of which in 1897 cost \$3,400. This year the tobacco used was raised by the convicts themselves on the farm near Palarm, showing that a fairly good quality of this product can be grown in the State. In 1897 the Governor granted a total of 297 pardons, restorations to citizenship in cases where sentences had been served, and remissions of fines.

Several cases of lynching occurred in the State during the year. A negro accused of assault was hanged by a mob at Fairview, June 3, and soon afterward two negroes were hanged for the same crime by a mob of about 300 farmers in Monroe County. On July 4 a mob took a negro charged with murder from jail at Rison and hanged him. Two other negroes, it appears, had previously been lynched for participation in the same crime. July 14, two negroes charged with a murder in 1894 were shot in jail at Monticello. They had been convicted

in two trials, but were awaiting a third trial, which had been granted by the Supreme Court. The most flagrant case of lawlessness occurred in Clarendon in August, on account of the murder of John P. Orr at his home there, July 30. The coroner's jury charged the crime to a negro, and accused as accessories four other negroes, the murdered man's wife, and a young Jewess. On Aug. 9 four of the negroes, one a woman, were taken from jail and hanged. They confessed to being accomplices. Mrs. Orr, who was also in jail awaiting trial, took poison, said to have been given to her by the mob to save her from the fate of the negroes, and died the next day. The circuit judge had promised to convene an extra session of court and see that the prisoners had a speedy trial.

Much trouble is encountered in the efforts of the authorities to put a stop to illicit distilling. It is difficult to get testimony against the law-breakers, for witnesses are subjected to all sorts of annoyance and loss and are in fear of their lives. One who had given testimony in a case of this kind in Cleburne County asked protection from the Governor in a letter which said: "We have been subjected to every kind of misuse by threats and destruction of property. My hogs died, my dogs were killed, my wagon was torn to pieces in the field, and last Saturday night at eight o'clock my barn was set on fire and burned to the ground with three cows and farming tools, grain, and fodder, my loss being not less than \$400. I have been warned that I must move out of my house and get out of the country right away. I have to guard night and day what I have left. I can't gather my crops. People are afraid to come to my house or have anything to do with me." The Governor issued a proclamation offering a reward for the arrest of any person guilty of the acts mentioned in the letter.

Railroads.—The figures given out in September by the Board of State Assessors show an increase of \$371,628 in the taxable valuation of railroads over that of 1897. The increase of mileage is 65.19; the total mileage, 2,612.17. The total valuation is \$22,995,492. This includes the sleeping-car, telegraph, and express companies, amounting to \$937,699.

Under a decree of the court back taxes to the amount of \$62,477 have been paid by the Pullman Palace Car Company, the Western Union Telegraph Company, and the Pacific Express Company.

The grant of 1,000 acres of State land to the Springfield, Little Rock, and Gulf road, on condition that it be built and equipped from Little Rock to Fourche la Pevre river by June 26, 1898, was forfeited by failure to build, although some work was done; and the project appears to have been abandoned.

The Mississippi River, Hamburg and Western road was completed in September to Hamburg from Montrose, its junction with the Iron Mountain, a distance of 20 miles only, and contracts were let to carry it on to the Mississippi. The plan is to extend it to Texarkana.

According to the Arkansas "Gazette," charters have been granted for 431 railroads in the State since Dec. 12, 1851, the date of the first charter. Of these, about 400 have been forfeited by failure to construct the proposed roads. Work is in progress on an extension of the Choctaw, Oklahoma and Gulf road from Wister Junction to Little Rock, and at a foreclosure sale of the Little Rock and Memphis in October this road was bought for the former. A line for the capital city, competing with the St. Louis, Iron Mountain and Southern, is thus in prospect. The purchase price of the Little Rock and Memphis was \$325,000 above the amount of the mortgage upon it, \$3,325,313.

By a Supreme Court decision in April, the rule

requiring the purchase of tickets by passengers boarding trains at ticket stations was declared to be reasonable.

Cities and Towns.—The towns of Lake City, in Lawrence County, and Shiloh, in Cleburne County, were incorporated this year, making the whole number of cities and incorporated towns in the State 205.

Cotton.—Representatives of the various compress and warehouse companies in Arkansas met at the capital in May and organized the Arkansas Compress Association. Its object is to promote a uniform and efficient method of baling cotton, for, according to the report of a committee, it is generally admitted that the American cotton bale is now delivered at its final destination in a dirty, uneven, and ragged condition; and on account of this condition the cotton consumers are discriminating against American cotton. It was decided to recommend the adoption of a uniform press box, 24 x 54 inches, inside measurement. By making a bale of these dimensions, it is said, lower freight rates abroad can be secured.

Political.—A new political organization was formed at a convention held in May at Little Rock. It was named the Liberal party. Its platform favored prohibition; the initiative and referendum; woman suffrage; Government control of the means of transportation and communication; free coinage of silver at the ratio of 16 to 1; an income tax; direct election by the people of the President, Vice-President, and Senators; reduction of congressional representation; abolition of "useless offices with large salaries and insignificant services"; reductions in salaries of public officials; Sunday laws; the establishment of reform schools; abolition of official fees and payment by salaries; a new road law; the teaching in public schools of the effects of alcohol and narcotics; and amendments to the election law requiring the names of all party and independent candidates complying with nomination regulations to be placed on the official ballot at the expense of the entire people for whom the election is held; that the candidates of each party be placed in separate columns; entitling each of the three larger parties to a State and county commissioner and a judge of election of their respective choosing; allowing each party having candidates to be voted for a watcher to serve without fee under oath as to secrecy; and requiring that the ballots of electors who may be unable to prepare their own ballots in the booth shall be filled out in the presence of all the judges.

Alexander McKnight was nominated for the office of Governor. No other nominations for State offices were made.

The People's party held its convention in Little Rock, May 31. The platform was as follows: "We reaffirm the fundamental principles of our national platform adopted at Omaha and St. Louis; we also reaffirm the State platform adopted by the Populists of Arkansas in 1896, and call especial attention to that part denouncing the Arkansas election law; and in order to secure all necessary reforms we demand an amendment to our State Constitution giving to the people the right of direct legislation."

Following is the ticket: For Governor, W. S. Morgan; Secretary of State, A. T. Barlow; Attorney-General, R. A. Moore; Treasurer, B. L. Jones; Superintendent of Public Instruction, B. P. Baker; Commissioner of Mines, Manufactures, and Agriculture, T. W. Hays; Commissioner of State Lands, George Martin.

Candidates for the offices of Auditor and Associate Justice were afterward named by the State Central Committee.

The Democratic State Convention was held in

Little Rock, June 21. The platform reaffirmed the Chicago declaration of 1896, declared the Monroe doctrine to be a cardinal tenet of the party, approved the war with Spain, opposed the issuing of interest-bearing bonds for defraying the expenses of the war, favored the building and control of the Nicaragua Canal by the Government, and recommended the adoption of the proposed amendments to the State Constitution providing for the creation of a railroad commission and for the improvement of highways. A resolution contemplating the continued use of the primary-election system was defeated, and the county central committees are left to exercise their own judgment in prescribing the manner in which elections shall be held for State candidates, whether by primary election or convention of delegates.

The candidates named were: For Governor, Daniel W. Jones; Secretary of State, Alexander C. Hull; Treasurer, Thomas E. Little; Auditor, Clay Sloan; Attorney-General, Jefferson Davis; Commissioner of State Lands, J. W. Colquitt; Superintendent of Public Instruction, J. J. Doyme; Commissioner of Mines, Manufactures, and Agriculture, Frank Hill; Associate Justice of the Supreme Court, J. E. Riddick. All but two of these nominations were determined by the vote of the primaries on May 7.

The Republican convention in Little Rock, June 29, adopted a platform demanding that each party be represented on each election board. The St. Louis platform was reaffirmed and the McKinley administration commended, and declarations were made in favor of the Dingley bill and the gold standard, the annexation of Hawaii, the construction of the Nicaragua Canal, and a national quarantine law. On State matters the platform declared for consolidation of State and congressional elections, a constitutional convention, an amendment to the grape-culture law, encouragement of immigration, and the inviting of capital for the development of the State's resources. Protest was made against the exclusion of Republicans from the boards of the university and the other State institutions. Resolutions were adopted asking Congress to provide for the care of Confederate cemeteries, asking that the office of superintendent of the Hot Springs reservation be exempted from the operation of the civil-service law, and favoring instruction in military tactics at the Branch Normal College, at Pine Bluff. The ticket follows: For Governor, H. F. Auten; Secretary of State, H. H. Myers; Auditor, Andrew I. Roland; Treasurer, A. L. Krewson; Land Commissioner, George M. French; Superintendent of Public Instruction, J. R. Williford; Attorney-General, J. F. Henley; Associate Justice of the Supreme Court, James Brizzolara; Commissioner of Mines, Manufactures, and Agriculture, Charles W. Cox.

The result of the election, Sept. 5, was the success of the entire Democratic State ticket. The official returns gave the following figures on the candidates for Governor: Jones (Democratic), 75,362; Auten (Republican), 27,524; Morgan (Populist), 8,332; McKnight (Liberal), 679. The next State Senate will be entirely Democratic, while the lower house of the legislature will have two Republican and no Populist members.

Two constitutional amendments were submitted and both were carried, one providing for a railroad commission, the other giving counties power to levy a road tax of 3 mills, with the consent of the people. The counties voted on the question of granting liquor licenses and also on the sale of native wine.

At the November election the Democrats elected all their candidates for Congress.

ASSOCIATIONS FOR THE ADVANCEMENT OF SCIENCE. American.—The fiftieth meeting of the American Association was held in Boston, Mass., during Aug. 22–27, 1898. The officers of the meeting were: President, Frederick W. Putnam, of



FREDERICK W. PUTNAM.

Cambridge, Mass. Vice-presidents of the sections: A, Edward E. Barnard, Williams Bay, Wis.; B, Frank P. Whitman, Cleveland, Ohio; C, Edgar F. Smith, Philadelphia, Pa.; D, John Galbraith, Toronto, Canada, acting in place of Mortimer E. Cooley, Ann Arbor, Mich., absent owing to service in the navy; E, Herman L. Fairchild, Rochester, N. Y.; F, Alpheus S. Packard, Providence, R. I.; G, William G. Farlow, Cambridge, Mass.; H, J. McKeen Cattell, New York city; and I, Archibald Blue, Toronto, Canada. Permanent secretary, Leland O. Howard, Washington city. General secretary, James McMahon, Ithaca, N. Y. Secretary of the council, Frederick Bedell, Ithaca, N. Y. Secretaries of the sections: A, Winslow Upton, Providence, R. I.; B, William S. Franklin, South Bethlehem, Pa.; C, Charles Baskerville, Chapel Hill, N. C.; D, John J. Flather, Lafayette, Ind., acting in place of William S. Aldrich, Morgantown, W. Va., absent owing to service in the war; E, Warren Upham, Minneapolis, Minn.; F, Robert T. Jackson, Boston, Mass.; G, Erwin F. Smith, Washington city; H, Marshall H. Saville, New York city; and I, Marcus Benjamin, Washington city. Treasurer, Robert S. Woodward, New York city.

Opening Proceedings.—The usual regular preliminary meeting of the council with which the association begins its sessions was held in the council room at the Technology Club, 71 Newbury Street, on Aug. 20, at noon. At this session the final details pertaining to the arrangements of the meeting were settled and the reports of the local committees acted on. The names of 162 applicants for membership were favorably considered, which number, together with 37 names acted on at an extra meeting of the council held in Washington on April 20, 1898, brought the total membership up to 1,843. The general session with which the public meetings begin was held in Huntington Hall of the Massachusetts Institute of Technology at 10 A. M., Aug. 22. The meeting was called to order by the retiring president, Oliver Wolcott Gibbs, of Newport, R. I., at whose request Bishop William Lawrence offered prayer. Gov. Roger Wolcott, of Massachusetts, then

welcomed the association. He said in part: "It is for you, little by little, as the years and centuries go on, with faithful and painstaking search, to learn a little more of that great ocean of truth and to launch your barks a little farther on the sea of science, and to know more about the stars, the plants, the pebbles, and the shells. The truth is that Science is still sweeping beyond you, and is beckoning you to follow her. Science would be less worthy of our regard if its benefits should be limited to any class, but it is open to all."

"It is as men of science that the Commonwealth welcomes you to-day. May you bear away from this meeting pleasant memories of the State, rich in the valor and achievements of her sons. And may you leave behind you that inspiration which is fostered and cherished by men who are brought together to compare notes and clasp hands, and carry back memories of this meeting. The Commonwealth greets you, and expresses to you her recognition, and bids you welcome to the old Bay State."

Mayor Josiah Quincy, as the representative of the municipality, welcomed the association to Boston in a few remarks, among which were references to the aid given by scientists to the working out of practical problems in the city. He said: "I am proud to say that we are commanding the interest and the services, and the hearty co-operation, without price and without reward, of men who are endeavoring to give in some measure a practical social science, and, while this may be a far less exact science than many others, I firmly believe that there is a social science and a political science, and that the domains which come within its knowledge are constantly widening, both as regards the body social and its evolution, and the body politic, and how to secure its best application. I heartily congratulate the American Association and welcome it back, after fifty years, to the scene of its birth and extend thanks and welcome on behalf of the city of Boston to each and every one of its members in view of this meeting here and the work which the association is yet to do in the first half of the century to come."

President James M. Crafts, of the Massachusetts Institute of Technology, likewise welcomed the members. He said: "Scholars who have walked in the fields with Gray and Agassiz, who have learned their mathematics from Peirce, their anatomy from Wyman, or their chemistry from your retiring president, might look the world over without finding leaders better fitted to guide them to the innermost chambers of scientific knowledge. In this place it is most fitting to mention the chairman of the first meeting of this association, William B. Rogers, who was a born educator. He loved science for its own sake. His later years were devoted to the institute which he built up, and which, now largely grown from small beginnings, has the honor of welcoming you this day; and it was on this stage that he fell, an unfinished sentence on his lips, giving his life to the cause which overtaxed his strength."

President Gibbs then presented his successor, President Putnam, who acknowledged the addresses of welcome on behalf of the association, and then declared the meeting open. A short address was then made in French by M. Désiré Charnay, the official representative of the French Government, and after the usual announcements the meeting was adjourned.

Address of the Retiring President.—The association met again in Huntington Hall, on Monday evening, to listen to the retiring address of President Gibbs. This distinguished scientist, who still follows his chosen study of chemistry in his private laboratory in Newport, was for nearly a quarter of a century Rumford professor in Harvard Univer-

sity, and with Agassiz, Gray, Lovering, and others did much toward inaugurating the great development in science that took place in Harvard subsequent to the arrival of Agassiz in this country. He chose as the subject of his address "Some Points in Theoretical Chemistry." He said: "All chemists are familiar with the terms atom and molecule. The use of these two words, with a clear conception of their meaning, forms an era in the history of the science. Our modern chemistry is built up of atoms and molecules, as we now define them. Our modern physics deals for the most part, and, as I think, too exclusively, with atoms, except, perhaps, in the case of what we now term physical chemistry, the new branch of science, which makes it difficult for us to determine where chemistry leaves off and where physics begins. The old controversy between the advocates of the continuity and those of the discontinuity of matter is not dead, but only sleeps."

Continuing, he added: "We owe to Dalton the first clear conception of the chemical atom as distinguished from the atoms of Lucretius and Democritus; to Frankland the conception of valence, which shows us what combinations of atoms can exist consistently with the number of units of affinity possessed by each individual atom, or, in other words, in what manner groups of atoms can form systems which are in stable equilibrium. This conception includes that of the chemistry of space, now so much employed in organic chemistry, as well as that of the motions of atoms within the molecule, as yet without supporters. To the conception of a definite number of units of affinity recent chemistry has added that of direction of action, statical according to one school of chemists, dynamical according to another. Within a comparatively short time attention has been directed to a large class of compounds exhibiting very interesting properties and forming peculiar series, some of which, at least, are made up of homologous terms. This group has been called complex-inorganic, because many of its members form highly complex molecules, of which no analogues are known."

He himself was one of the pioneer workers in certain of these complex-inorganic acids and their salts, and the history of his investigations formed the burden of his address. He called attention to the fact that "the term 'complex-inorganic' was at first intended to embrace all the compounds containing a relatively large number of molecules of tungstic and molybdic oxides as determinates, beginning with the silicotungstates of Marignac. Hitroff, in 1859, appears to have first drawn the distinction between double salts which are decomposed by solution and those which are stable under the same circumstances. Finally, Ostwald proposed to restrict the term 'complex' to the salts which are not decomposed by solution and which gave none of the chemical reactions of the constituents. Of these two classes it is difficult to say which is the more interesting and theoretically important. The salts of the first class are comparatively new to chemists and, in spite of all which has been done, offer a very wide field for investigation. Those of the second class present new species of double and even of triple and quadruple salts. It will first be necessary to study the whole subject by physical as well as by the purely chemical methods which all chemists have hitherto employed, so as to define as distinctly as possible the limit, if there be one, which separates the two classes from each other."

In continuation he said: "I venture now to suggest that, in addition to its valence, each atom and each molecule possesses a special chemical potential, not necessarily a function of its valence. The expression 'chemical potential' is not wholly new, but

I think the conception has never been clearly defined. I would now define it as bearing the same relation to chemical action which the electric potential bears to electrical action, the two potentials being mutually convertible, all chemical compounds having residual affinities or potentials besides the valencies. If we suppose that the atoms within the molecule are in motion, such motion will be independent of the valencies and the molecule will have a certain amount of free kinetic energy convertible into chemical electrical energy or into heat. In inorganic chemistry four great problems now present themselves for solution. These are: The existence and chemical relations of the gaseous elements, of which five are known to exist in the atmosphere; the separation of the elements forming the rare earths by systematic processes and the determination of their positions in the periodic series; the thorough and, so far as possible, exhaustive study of the complex and double salts; and, finally, the determination of the atomic masses of the elements with all the precision of which the subject admits, and in the spirit of Stas, of Richards, and of Morley."

Proceedings of the Sections.—The association is divided into nine sections, each of which is presided over by an officer having the rank of vice-president of the association. Subsequent to the opening proceedings each section meets by itself and effects its organization by electing a fellow to represent it in the council, a sectional committee of three fellows, a fellow or member to the nominating committee, and a committee of three members or fellows to nominate officers of the section for the next meeting. As soon as this organization is effected, the secretary of the section reports to the general secretary, who then provides him with a list of papers that, having been considered suitable by the council, may be read and discussed before the section. A press secretary, whose duties are to prepare abstracts of the papers read and to give them to reporters of newspapers, is also commonly chosen.

A. Mathematics and Astronomy.—This section was presided over by Dr. Edward E. Barnard, formerly at the Lick Observatory, and now at the Yerkes Observatory, of the University of Chicago, but perhaps best known by his discovery of the fifth satellite of Jupiter. He chose as the subject of his address "The Development of Astronomical Photography."

He said: "The great discovery of taking pictures by the natural light of the sun had just been made when the American Association held its first meeting, and while it then aroused great interest, there yet were few who even dreamed of the future value of photography to the world. One of those who saw the value of Daguerre's discovery was the celebrated astronomer and writer Dr. Dick. The astute Scotchman saw the opportunity to catch the features of the moon by means of the photograph; he thought that the planets would prove easy subjects to the new process, that perhaps there might be something discovered about the nebulae, and that objects not visible to the eye might find themselves depicted on the plated disks of Daguerre. It is a little curious to note that while much excellent work has been done on the nebulae, the photography of the planets seems to-day no nearer realization than in the days of Dr. Dick's predictions. In 1839 the astronomer Arago addressed the French Academy on the subject of photographing the skies, and within a year from that time the elder Draper in New York had succeeded in taking a picture of the moon. Five years later, Harvard College Observatory began its photographic work, when were secured pictures of the moon with the

15-inch equatorial. The speaker rapidly sketched the rise and progress of photography as applied to the moon, the sun, and the heavens, much of the work being done by American investigators. The completion of Lick Observatory marked a decided advance in study, since the large telescope there favored the work. The Paris photographs of Loewy and Puiseux, made with a special form of telescope, excel anything that has yet been done, however. Dr. Barnard followed the progress of work on the sun, which at first sought detail on the surface, next devoted itself to the prominences, then took up the corona, and with the invention of the dry plate has gone back to detail on the surface and within the sun spots. The dry plate has been the most important improvement which has contributed to the advance of astronomical photography. With the old wet processes the time of exposure was limited; it was not so flexible a method, and was most inconvenient. A most important branch of investigation is that of stellar photography, which dates practically from 1882. In an endeavor to catch the great comet of that year, Dr. Gill, at the Cape of Good Hope, secured the assistance of a local photographer, and when his pictures reached Europe the astonishing feature was the number of stars that they showed. The work has been taken up with energy by many observatories, and most excellent results have been accomplished.

A portion of Dr. Barnard's paper was devoted to recent work, especially that of Lick and Harvard, and an insight was given into the many different lines of research wherein the camera plays an important part—such as the noting of variable stars, the securing of plates whereupon positions may be measured, the catching of the details of nebulae and comets, and the discovery of asteroids.

Alexander Ziwet, of the University of Michigan, who was chosen secretary of this section last year, having declined election, his place was filled by the election of Winslow Upton, of Brown University.

The following-named papers were read and discussed before the section: "Making Astronomy Popular," by Miss Mary Proctor; "Correction of Local Error in Stellar Photometry," by Henry M. Parkhurst; "The Parallaxes of 61^1 and 61^2 Cygni from a Reduction of the Rutherford Measures," by Herman S. Davis; "The Praesepe Group: Measurement and Reduction of the Rutherford Photographs," by Frank Schlesinger; "Discordances between the North Polar Distances of Stars derived from Direct and Reflected Observations" and "The Treatment of Results from Reflection Observations at the Greenwich Observatory," by John R. Eastman; "A Summary of Planetary Work at the Lowell Observatory, and the Conditions under which such Work has been performed," by Andrew E. Douglass; "Astronomy in Southern California," by Lewis Swift; "A Description of Instantaneous Azimuth and Altitude Charts of the Heavens," by F. W. Coar; "Instruction in Elementary Astronomy by Means of Observations made by the Student," by W. Maxwell Reed; "Personal Equations during the Past Century: A Brief Summary," by Truman H. Safford; "On Rational Right-Angled Triangles, II," by Dr. Artemus Martin; "Behavior of the Atmospheres of Gas- and Vapor-Generating Globes in Celestial Space," by J. Woodbridge Davis; "Graphical Logic," by Ellen Hayes; "Illustrations of the Comitant Method of constructing the Imaginary Loci of Analytical Geometry, so as to render Their Properties Evident to the Eye," by Frank H. Loud; "On the Operation Groups of Order 48 and those of Order $2p^2$, p being any Prime Number," by George A. Miller; "The Condition of the Surface of the Planet Jupiter," by George W. Hough; "The Yerkes Observatory and its Work," by George E.

Hale; "The General Theory of Anharmonics," by Edgar O. Lovett; "On the Aims of the International Society for the Promotion of Quaternions and Allied Branches," by Alexander Macfarlane; "Some Notes on 'Direction,'" by S. Edward Warren; "A Short Method for deriving Riemann's Theta Formula," by Franklin A. Becher; "A Ternary and a Quaternary Linear Congruence Group simply Isomorphic to the Linear Fractional Congruence Group," by Leonard E. Dickson; "Linear Transformations in Four Dimensions," by Arthur S. Hathaway; "The Limitations of the Present Solution of the Tidal Problem," by John S. Hayford; "Variation of Latitude at New York City and the Constant of Aberration from Observations with a Zenith Telescope (Talcott's Method) at Columbia University Observatory during the Years of 1892-1898," by John K. Rees, Harold Jacoby, and Herman S. Davis; "Fifty Years of American Geodesy," by Edward D. Preston; "On the Duplex Base Apparatus of the United States Coast and Geodetic Survey" and "On the Diminution of the Refraction of the Atmosphere with Height and its Effect upon Trigonometrically Determined Elevations from Reciprocal Zenith Distances," by William Eimbeck; "On a New Application of the Prismatic Camera to Total Eclipses," by David P. Todd; "On Harmonic Functions," "A Proposed Tidal Analyzer," "A Tidal Abacus," and "The Harmonic Analysis of High and Low Waters," by Rollin A. Harris; and "A Description of the Altazimuth Instrument recently constructed for the United States Naval Observatory," by George A. Hill.

Also the following reports were read: On "Theory of Invariants: The Chief Contributions of a Decade," by Henry S. White, and on "The Modern Group Theory," by George A. Miller.

A joint session was held with Section B, on Aug. 25, at which the following reports were read: "Report on the Recent Progress in the Dynamics of Solids and Fluids," by Ernest W. Brown, and "Report on the Recent Progress in the Mathematical Theory of Electricity and Magnetism," by Arthur C. Webster; also the following papers: "The Mass and Moments of Inertia of the Earth's Atmosphere," "Two New Forms of Apparatus for measuring the Acceleration of Gravity," and "The Gravitation Constant and the Mean Density of the Earth," by Robert S. Woodward, and "The Limitations of the Present Solution of the Tidal Problem," by John S. Hayford.

B. Physics.—The presiding officer of this section was Prof. Frank P. Whitman, of Adelbert College, Cleveland, Ohio, who presented an address on "Color Vision." This address was a summary of the progress in the department of the vision of colors, referring to the history of the research and summing up the matter in a statement of its condition at present. With a groundwork of the first definite and intelligible hypothesis, that of Sir Isaac Newton, Prof. Whitman related the story of color vision, noting the improvements to the original hypothesis suggested by Thomas Young, and finally those of his successors in this line of investigation. Color blindness was of course the burden of much of the address, the various ideas that have been advanced to account for the false appreciation of colors being passed in review. Much was said about the "visual purple," the purpose of which has been a puzzle to all anatomists. With reference to our present knowledge, it seems clearly proved that the number of color sensations is small and all hypotheses that a large number are, he said, untenable to-day. The vision of white light is by no means a compound sensation, no matter how complex the light may be physically, but at the same time it is not a purely independent one, for there are some

evident relations between it and vision by faint light in which all the colors fade and tend to become white. A definite and highly probable function has been assigned to the visual purple, that of adaptation and of causing or aiding vision in faint light. "Further than these few principles we can hardly go. The number and variety of known human phenomena are very great and constantly increasing. Their interrelations grow every day more complex, and the actual mechanism governing those relations still remains almost entirely unknown. The various theories have arrived at such a state of flexibility that, thanks to subsidiary hypotheses, almost any kind of visual result might be explainable. Perhaps the most hopeful line of research is that which, like the study of the visual purple, seeks to find a relation between color sensations and physical properties." In concluding he said: "It seemed not surprising if the next great step in advance might come from the chemical investigations rather than from the sides of physics, physiology, or psychology, which have held the field so long."

Owing to the resignation of Edward B. Rosa, of Wesleyan University, William S. Franklin, of Lehigh University, was chosen secretary of the section.

Subsequently the following-named papers were read and discussed before the section: "The Measurement of Thermal Conductivity in Iron," by Edwin H. Hall; "Second Report on the Magnetic Survey of Maryland," by Louis A. Bauer; "The Resistance of Iron Wires for Alternating Currents of Ordinary Frequencies" and "On the Magnetic Deflection of Diffusely Reflected Cathode Rays," by Ernest Merritt; "On the Electrical Properties of the Vapor from the Arc," by Ernest Merritt and Oscar M. Stewart; "The Heat of Fusion of Ice determined in Electrical Units," by Edward L. Nichols; "The Hysteresis of Iron and Steel at Ordinary Temperatures and at the Temperature of Solid Carbon Dioxide," by A. M. Thiessen; "The Electrical Resistance of Lead Amalgams at Low Temperatures," by G. W. Gressman; "The Most Efficient Thickness of Transformer Plate," by Frederick Bedell, R. M. Klein, and T. P. Thompson; "Photographic Studies of the Electric Arc," by N. H. Brown; "Exhibition of Certain Models in Physics and Dynamics," by Carl Barus; "Temperature and Vapor Gradients in the Atmosphere," by Edward H. Bigelow; "Report on the Velocity of Light in a Magnetic Field," by Edward W. Morley, Henry T. Eddy, and Dayton C. Miller; "A Study of Standard Meter Scales ruled on Nickel, Silver, and Glass," by Dayton C. Miller; "An Apparatus for determining Coefficients of Induction," by Sidney T. Moreland; "Study of Elastic Fatigue by the Time Variation of the Logarithmic Decrement," by Joseph O. Thompson; "A Redetermination of the Ampère," by George W. Patterson and Karl E. Guthe; "Polarization and Internal Resistance of the Voltaic Cell," by Karl E. Guthe; "A New Gas," by Charles F. Brush; "Hysteresis Loss in Iron for very Small Ranges of Induction (B)," by Henry S. Webb; "Note on the Testing of Optical Glass" and "A Lecture-Room Experiment in Electrostatics," by William S. Franklin; "A Study of Galvanic Polarization," by Barry McNutt; "On a Normal Curve of Magnetization of Iron," by Schuyler S. Clark; "Some Determinations of Dielectric Strength," by Thomas Gray; "On the Efficiency of Condensers" and "A Calorimetric Determination of the Energy dissipated in Condensers," by Edward B. Rosa and Arthur W. Smith; "Graphical Treatment of Mutually Inductive Circuits with Special Reference to the Case of Variable Frequency," by Henry T. Eddy; "The Effect of Fibrous

Structure in Iron on its Change of Length when Magnetized," by Edward Rhoads; "Progress in the Exploration of the Air with Kites at the Blue Hill Observatory," by A. Lawrence Rotch; "On the Use of Window Glass having a Diffusive Action on Light," by Charles L. Norton; "On the Relative Brightness of Pigments by Oblique Vision," by Frank P. Whitman; "Notes on the Effect of Silicon on the Magnetic Permeability of Iron," by Frank C. Caldwell; "On the Osmotic Pressure of Certain Ether Solutions and the Validity of the Boyle-Van't Hoff Law," by H. M. Goodwin and George K. Burgess; "On the Dielectric Constant and Electrical Conductivity of Liquid Ammonia," by Harry M. Goodwin and Maurice de Kay Thompson, Jr.; "A New Instrument for the Measurement of the Intensity of Sound," by Arthur G. Webster and B. F. Sharpe; "A New Chronograph and a Means of rating Tuning Forks" and "A Geometrical Method for investigating Diffraction by a Circular Aperture," by Arthur G. Webster; "On the measurement of Electrical Oscillations of Short Period and their Absorption by Water," by Alfred D. Cole; "The Effect of the Secondary on the Period of Oscillation in a Primary Condenser Circuit," by J. H. Smith; "Exhibit of an Automatic Mercurial Air Pump designed by Prof. E. W. Morley," by Dayton C. Miller; "An Improved Method for rating Tuning Forks" and "An Acoustical Micrometer," by John O. Reed; "An Instrument for measuring Radiance," by Knút Angström; "A Device for Recording Photometer Readings," by C. P. Matthews; "Polarization in the Zn-H₂SO₄ Cell," by William A. Anthony; "A Harmonic Piano and Organ," by Levi Orser; and "On Certain Constants relating to Arc Lighting," by William Harkness.

C. Chemistry.—This section had as its presiding officer Prof. Edgar F. Smith, who fills the chair of Chemistry in the University of Pennsylvania. The subject of his address was "The Electric Current in Organic Chemistry." He said: "It is almost a century since Volta made his 'grand discovery,' which led to further investigations, with the final demonstration that animal and metal electricity are one. It also opened the way to the construction of the battery bearing the name of this honored investigator." Of the chemical phenomena, which were to Volta also entirely devoid of interest, were mentioned the discovery of the electrolytic decomposition of water and others of value, culminating in Davy's isolation of the two valuable alkali metals, sodium and potassium. After reviewing the important discoveries made by the application of the electric current to various compounds, Prof. Smith discussed more particularly the results won by the introduction of the current into the field of pure chemistry. Of its use in analysis he said: "It was our own Dr. Gibbs who in 1805 first called the attention of the chemical world to that simple yet beautiful and extremely satisfactory determination of copper in the electrolytic way which proved the incentive to further study in this direction, so that at present 21 metals lend themselves to electrolytic determination from solutions of the most varied character, and in the same manner at least 120 separations have been made, all of which, for accuracy, neatness, and rapidity, leave little to be desired." Its application in the establishment of industries of national importance was described. Then, reaching the main topic of his address, and beginning with the experiments made by Kolbe in 1848 of the electrolysis of concentrated solutions of potassium, acetate, and valerate, he gave a complete historical summary of the work accomplished by the application of the electric current to organic compounds. In closing, he quoted the words of

Michael Faraday, "truly a father of electro-chemistry, who said: 'It is the great beauty of our science . . . that advancement in it, whether in degree great or small, instead of exhausting the subjects of research, opens the doors to future and more abundant knowledge, overflowing with beauty and utility to those who will be at the . . . pains of undertaking its experimental investigation.'"

As many of the members of Section C are also members of the American Chemical Society, it has become customary for the last-named body to hold its summer meeting contemporaneously with Section C. The papers are grouped under special headings, and are read with a chairman presiding over each group.

The following is a list of the papers presented: *Analytical Chemistry*, in charge of Prof. William L. Dudley: "The Influence of Temperature upon the Specific Rotary Power of Sucrose," by Harvey W. Wiley; "The Determination of Water and Coke in Coal," by William A. Noyes and N. M. Austin; "Notes on Determination of Water in Coal," by William F. Hillebrand; "Analysis of Mixed Acids," by Charles E. Munroe; "A Simple Color Reaction for the Detection of Methyl Alcohol," by Samuel P. Mulliken and Harwood Scudder; "Detection of the Nitro Group in Organic Compounds," by Samuel P. Mulliken and E. R. Barker; "Electrolytic Determination of Tin in Tin Ores," by Edward D. Campbell and E. C. Champion; "The Determination of Undigested Fat and Casein in Infant Fæces," by Herman Poole; "New Method for the Determination of Zinc" and "Note on Determination of Arsenic in Glycerin," by A. C. Langmuir; and "The Estimation of Iron and Aluminum in Natural Phosphates," by Harvey W. Wiley and F. P. Veitch. *Teaching of Chemistry*, in charge of Prof. Frank P. Venable: "The Use of the Formula in teaching Chemistry," by Frank P. Venable; "The Teaching of Organic Chemistry," by Ira Remsen; "The Teaching of Industrial Chemistry," by Edward Hart; "The Teaching of Analytical Chemistry," by William L. Dudley. *Physical Chemistry*, in charge of Prof. Theodore W. Richards: "Progress in Physical Chemistry," by Theodore W. Richards; "Some Properties of Liquid Anhydrous Ammonia," by Edward C. Franklin and Charles A. Kraus; "The Solubility of Di-ionic Salts of Weak Acids in Solutions of Stronger Di-ionic Acids," by Arthur A. Noyes and David Schwartz; "The Solubility of Di-ionic Acids in Solutions of Di-ionic Salts of Other Acids," by Arthur A. Noyes and Edward S. Chapin; "The Solubility of Tri-ionic Bases in Solutions of Di-ionic Salts of Weak Bases," by Arthur A. Noyes and Edward S. Chapin; "The Solubility of Iodine in Dilute Potassium Iodide Solutions," by Arthur A. Noyes and L. J. Seidensticker; "The Rate of Reaction between Silver Acetate and Sodium Formate: A Reaction of the Third Order," by Arthur A. Noyes and George T. Cottle; "On the Influence of Silicon on the Heat of Solution of Coke in Cast Iron," by Edward Campbell and W. E. Hartman; "On the Passage of Bubbles through Media of Different Densities," by C. Gilbert Wheeler; and "Photographic Reproduction of Color," by Romyne Hitchcock. *Agricultural Chemistry*, in charge of Prof. Henry A. Weber: "Light: A Factor in Sugar Production," by Henry A. Weber; "The Determination of Starch in Agricultural Products," by J. B. Lindsay; "A Note on the Growth of Lupins on Calcareous Lands," by Eugene W. Hilgard; and "Some of the Important Results of the Recent Chemical Investigations of Plant and Animal Cells," by Emil A. de Schweinitz. *Industrial Chemistry*, in charge of Prof. Nathaniel W. Lord: "The Valuation of Coals," by Nathaniel W. Lord; "Determination of Turbidity in Water" and "Efficiency of

the Elmira Filtering Plant," by William P. Mason; "On the Composition of *Oscillaria prolifica* and its Relation to the Quality of Water Supplies," by Isabelle F. Hyams and Ellen H. Richards; "The Le Sueur Electrolytic Process for the Production of Caustic Soda and Bleaching Powder" and "Review of the Electrolytic Processes for the Production of Caustic Soda and Bleaching Powder," by Charles L. Parsons; "The Alum Question in Water Purification," by E. G. Smith; "The Effect of an Electrolytic Bath on the Tanning of Leather," by Charles F. Mabery and K. Landgrebe; "Some Records of the Year's Progress in Applied Chemistry," by William McMurtrie; "The Progress in Utilization of City Garbage, with Special Reference to the New Plant in Boston," by Bruno Terne; "On the Removal of Hardness from Water for Boiling Purposes," by Charles F. Mabery and E. B. Baltzly; "On the Properties of Galactose," by S. M. Babcock and H. L. Russell; "Composition of Ohio Wines," by O. W. Smith and Norman Parks; and "New Process for the Commercial Production of Oxygen," by Romyne Hitchcock. *Inorganic Chemistry*, in charge of Prof. Horace L. Wells: "Double Salts," by Horace L. Wells; "The Alkaline Reaction of Certain Natural Silicates," by Frank W. Clarke; "The Action of Soft Waters on Metals," by Ellen H. Richards and Willis R. Whitney; "Ferrous Iodide," by C. Loring Jackson and J. H. Derby; "The Action of Chromic Acid on Hydrogen," by Charles L. Reese; "On the Occurrence of Strontium and Barium," by John H. Kastle; "Use of Electric Current in Forming Alums," by James L. Howe and E. A. O'Neal; "The Color of Sulphur in the Gaseous State," by James L. Howe and S. G. Hamner; "A Study of the Tellurides," by Cabell Whitehead; "Magnetic Ferric Oxide," by William L. Dudley; and "The Action of Various Bases on Metallic Arsenites," by Charles Wellington. *Organic Chemistry*, in charge of Prof. Ira Remsen: "On the Sulphur Compounds and Unsaturated Compounds in Canadian Petroleum," by Charles F. Mabery and W. O. Quayle; "On the Composition of Commercial Paraffin and the Higher Constituents of Pennsylvania Petroleum," by Charles F. Mabery; "On the Constituents of California Petroleum," by Charles F. Mabery and E. J. Hudson; "Some Experiments on the Addition of Hydrogen to Acetylene," by Charles F. Mabery and H. L. Schrom; "The Oxidation of Formic Aldehyde by Hydrogen Peroxide," by John H. Kastle; "Certain Peculiar Reactions of the Tribromnitrobenzols," by C. Loring Jackson; "The Propyl Phosphines," by Peter Fireman and E. G. Portner; "The Action of Ethers on Phosphonium Iodide," by Peter Fireman and Ernestine Fireman; "Camphoric Acid: Synthesis of the Neighboring Xylic Acid," by William A. Noyes; "Hydrazo and Azo Derivatives of Tetraphenylmethane," by M. Gomberg and A. C. Campbell; "On Tetraphenylmethane" and "A Periodide of Bromotriphenylmethane," by M. Gomberg; "Oxyinduline—a New Blue Dyestuff," by Samuel P. Mulliken and W. Kelly; "The Benzaldoximes," by Frank K. Cameron; "Certain Alkaloidal Periodides and the Volumetric Estimation of Alkaloids as Higher Periodides," by Albert B. Prescott and H. M. Gordin; and "On True and Bis-Nitroso Compounds," by E. Kneuer. *Physiological Chemistry*, in charge of Edward E. Smith: "American Research in Physiological Chemistry," by Edward E. Smith; "Investigations on the Nature of Nisse Granules" and "Studies in Epilepsy: A Contribution to the Subject of Metabolism in Nervous Diseases," by Samuel Bookman; "Proteids of the Brain," by P. A. Levene; "Experiments on the Metabolism of Matter and Energy in the Human Body" and "Experiments on the Metabolism of Alcohol in the Human

Body," by Wilbur O. Atwater and F. G. Benedict; "On the Availability of the Nutrients of Food Materials," by Wilbur O. Atwater and A. P. Bryant; "Urinary Acidimetry and Alkalimetry" and "The Normal Degree of Urinary Acidity," by Heinrich Stern.

D. Mechanical Science and Engineering.—At the Detroit meeting Prof. Mortimer E. Cooley was elected to the vice-presidency, presiding over this section, but as he was unable to be present at the meeting, owing to military duties in connection with the war with Spain, his address was not presented, and instead Prof. Robert H. Richards, of the Massachusetts Institute of Technology, addressed the section on the subject of "Ore Dressing." He called attention to one of the most important types of mills for concentrating ores, that using revolving screens and jigs, showing the system of sizing by screens and hydraulic classification to prepare the ore for the subsequent concentration by jigs and slime tables. A good deal of diversity of opinion exists upon the choice of the sizes of holes for the sieves which prepare the ore for jigs. Prof. Richards then described certain investigations which defined the laws governing this selection. His investigations into the laws of jigging attribute the action of that machine mainly to two causes—separation under hindered settling conditions during pulsion or the upward movement of the water, in which the heavier particles form a layer below the light particles, and suction or the downward movement of the water, in which the fine particles of the heavy mineral are drawn down through the interstices between the coarse grains of quartz. He further gave results of investigations upon the slopes and water quantities to be used upon slime tables, showing the angles at which the rich mineral and the waste rock move. These results indicate the lines along which the improvement in slime tables should run.

The chosen secretary of the section, Prof. William S. Aldrich, was likewise absent from the meeting owing to the war, and it was decided that the officers of the previous year—i. e., Prof. John Galbraith and John J. Flather—should continue to act as vice-president and secretary.

The following-named papers were read and discussed before the section: "The Determination of the Lamp House per Day available for Electric Lighting from a Storage Battery Plant driven by a Twelve-Foot Aer-Motor," by C. L. Crandall; "Instruments and Methods of Hydrographic Measurements by the United States Geological Survey," by Frank H. Newell; "The Development of the Topographic Work of the United States Geological Survey and its Application to the Solution of Economic and Engineering Problems," by Charles D. Walcott; "On the Testing of Steam-Pipe Covers," by Charles L. Norton; "Time Test on Dry Long-Leaf Yellow-Pine Lumber in Compression Endwise," by John B. Johnson; "High-Speed Influence Machines," by Charles F. Warner; "Proposed Methods of Determining the Frequency of Alternating Currents," by Carl Kinsley; "A Combined Absorption and Transmission Dynamometer," by John J. Flather; "On the Use of a Platinum Resistance as a Pyrometer in Boiler Tests" and "On the Measurement of Train Resistance by Dynamometer," by Frank C. Wagner; "Note on a Curious Example of Elastic Anisotropy in Steel," "An Integrating Dynamometer for measuring the Work done in Drawing a Train," and "A Comparison of the Efficiency of the Rheostat and the Series-Parallel Controller for Electric Cars," by Thomas Gray; "The Efficiency of Refrigerating Plants," by Storm Bull; "On the Evaporation and Seepage from Reservoirs," "Losses from Rivers," and "Energy received from the Sun," by Louis G. Carpenter; "Some Micro-photographs

showing the Grains of Portland Cement between Diameters 0.02 mm. and 0.14 mm. as separated by the Schöne Washing Apparatus," by John B. Johnson; "Some Notes on Definitions of Mechanical Unit," by William Kent; and "The Theory of Half-Tone Press Printing," by Romyne Hitchcock.

E. Geology and Geography.—The presiding officer of this section was Prof. Herman L. Fairchild, of the University of Rochester, who addressed the section on the subject of "Glacial Geology in America." He said: "The life of this association, with that of its predecessor, covers precisely the period since the glacial theory was introduced to American geologists. It seems highly appropriate, upon the occasion of the jubilee meeting of the society, to review briefly the history and growth of glacial geology in the country, and to give credit to the men who were pioneers, or who have been most influential in the development of this young and vigorous branch of earth study. Our early geologists had by no means neglected the study of the 'drift' of the country, but the formation of this was attributed to the action of great floods, so that the word 'diluvial' is of common occurrence in the early essays of our self-taught geologists. The first suggestion of ice as a contributory agent seems to have been made by Peter Dobson, of Connecticut, who, in a communication to 'Silliman's Journal,' spoke of the agency of icebergs. This was in 1825, and Murchison gives to Dobson the credit of suggesting the iceberg hypothesis to him. Conrad seems to have been the first of our students who suggested the agency of land or glacier ice, and this idea was taken up by Hitchcock.

"A question of great popular interest concerning glaciation is that of time—time in years since the disappearance of the ice. That the time is very brief, judged by geologic standards, since the ice sheet disappeared from our region seems certain. Judging from the freshness of the glacial scorings and the deposits, five thousand or ten thousand or fifteen thousand years is thought by many glacialists to be a fair estimate of the length of their exposure. But no reliable chronometer has yet been found."

On Aug. 23 the Geological Society of America met with the section, at which time members of that society presented the following papers: "Some Features of the Drift on Staten Island, N. Y.," by Arthur Hollick; "Spacing of Rivers with Reference to the Hypothesis of Base Leveling" and "Loess Deposits of Montana," by Nathaniel S. Shaler; "Glacial Waters in the Finger Lake Region of New York," by Herman L. Fairchild; "The Stratification of Glaciers," by Harry F. Reid; "Evidences of Epeirogenic Movements causing and terminating the Ice Age," by Warren Upham; "Clayey Bands of the Glacial Delta of the Cuyahoga River at Cleveland, Ohio, compared with those in the Implement-Bearing Deposits of the Glacial Delta at Trenton, N. J.," by G. Frederick Wright; "The Middle Coal Measures of the Western Interior Coal Field," by H. Foster Bain and A. T. Leonard; "The Principal Missourian Section," by Charles R. Keyes; "Tourmaline and Tourmaline Schists from Belcher Hill, Jefferson County, Colorado," by Horace B. Patton; "Note on a Method of Stream Capture" and "Magmatic Differentiation in the Rocks of the Copper-Bearing Series," by Alfred C. Lane; "The Volume Relations of Original and Secondary Minerals in Rocks," by Charles R. Van Hise; "The Development of the Ohio River," by William G. Light; "Classification of Coastal Forms," "Dissection of the Ural Mountains," and "Note on Monadnock," by F. P. Gulliver; and "The Continental Divide in Nicaragua," by C. Willard Hayes.

Subsequently the following-named papers were read and discussed before the section: "Outline Map of the Geology of Southern New England," by Benjamin K. Emerson; "Basins in Glacial Lake Deltas," by Herman L. Fairchild; "An Exhibition of the Rare Gems and Minerals of Mount Mica," by Augustus C. Hamlin; "The Hudson River Lobe of the Laurentide Ice-sheet," by Charles H. Hitchcock; "The Age of the Amboy Clay Series as Indicated by its Flora," by Arthur Hollick; "The Origin of the Limonite Ores of Nittany Valley, Pennsylvania," by Thomas C. Hopkins; "The Region of the Causses in Southern France," by Horace C. Hovey; "The Washington Limestone in Vermont," by C. H. Richardson; "Fluctuations of North American Glaciation shown by Inter-glacial Soils and Fossiliferous Deposits" and "Time of Erosion of the Upper Mississippi, Minnesota, and St. Croix Valleys," by Warren Upham; "Changes in the Drainage System in the Vicinity of Lake Ontario during the Glacial Period," by Major A. Veeder; "Recent Severe Seismic Movements in Nicaragua," by John Crawford; "Supposed Corduroy Road of Late Glacial Age, at Amboy, Ohio," "The Age of Niagara Falls as indicated by the Erosion at the Mouth of the Gorge," and "A Recently Discovered Cave of Celestite Crystals at Put-in-Bay, Ohio," by G. Frederick Wright; "Geography and Resources of the Siberian Island of Sakhalin," by Benjamin Howard; "Another Episode in the History of Niagara River," and "Evidence of Recent Great Elevation of New England," by John W. Spencer; "The Oldest Paleozoic Fauna," by George F. Matthew; "The Oldest Known Rock" and "The Origin of the Archean Igneous Rocks," by Nathaniel H. Winchell; "Joints in Rocks," by Charles R. Van Hise; "Notes on some European Museums," by Edmund O. Hovey; "History of the Blue Hills Complex," by William O. Crosby; "Paleontology of the Cambrian Terranes of the Boston Basin," by Amadeus W. Grabau; "The Norseman the Conqueror of Britain," by Paul Du Chailly; "Diamonds in Meteorites," by Mrs. E. M. Souvielle; and "The Periodic Variations of Glaciers," by Harry F. Reid.

On May 25 the National Geographic Society met with this section, and the following-named papers were presented: "The Venezuela-British-Guiana Boundary Dispute," by Marcus Baker; "Considerations governing Recent Movements of Population," by John Hyde; "Some New Lines of Work in Government Forestry," by Gifford Pinchot; "The Development of the United States," by W. J. McGee; "Atlantic Estuarine Tides," by M. S. W. Jefferson; "The Forestry Conditions of Washington State," by Henry Gannett; "The Five Civilized Tribes and the Topographic Survey of Indian Territory," by Charles H. Fitch; and "Bitter Root Forest Reserve," by Richard U. Goode.

F. Zoölogy.—This section was presided over by Prof. Alpheus S. Packard, of Brown University, who delivered an address before the section on "A Half Century of Evolution, with Special Reference to the Effects of Geological Changes on Animal Life." Prof. Packard began: "Only a little less than fifty years have passed since the publication of Darwin's 'Origin of Species' and the general acceptance by naturalists of the theory of descent. Since 1848 the sciences of embryology, cytology, and morphology have been placed on a firm basis. It is but little over half a century since the uniformitarian views of Lyell were promulgated. The cell doctrine was born in 1839; the view that protoplasm forms the basis of life was generally received forty years since; fifty years ago the doctrine of the conservation of the forces was worked out, and already by this time had the idea of the unity of

Nature dominated the world of science. On the fiftieth anniversary, therefore, of our association, it may not be out of place first briefly to inquire into the present state of evolution, and then to dwell more at length on the subject of the effect of geological changes on animal life. To use a current phrase, he continued, the evolution theory has come to stay. It is the one indispensable instrument upon which the biologist must rely in his work. Not only has zoölogy been benefited by the acceptance of evolution, but every important department of intellectual thought has been rejuvenated and rehabilitated by the employment of the modern scientific method. Progress itself is dependent on the evolutionary principle involved: adaptation, the disuse or rejection of the unfit, the use or survival of the fittest, with the mechanical principle of economy of material. Though the chief arguments in favor of evolution have been drawn from observations of our own planet, and the life existing upon it, the nebular hypothesis teaches us that the same process has determined the origin of other worlds than ours, and applies in fact to all the members of the solar system, and with but little doubt to all the individual bodies in the universe." Prof. Packard then passed in review the more important revolutions in geological history, showing wherein the different classes of animals arose, noting especially the effect of the uplifting of the great Appalachian chain. This occurred near the close of the Paleozoic, and, with the exception of that time, when all the great ranges of the continents were upheaved, is the most extensive and, from a biological point of view, the most noticeable event in geological history. The speaker referred to the origin of new forms and new classes, showing their relations to the geological revolutions, but being careful to indicate that their probable origin lay rather as the results of the gradual extension of the land masses and the opening of new areas. Finally he reviewed the effect of other revolutions and conditions of affairs, marking with some detail the effects of each of them on the forms of animals, showing how the enormous number of reptiles retarded the development of mammalian forms, how as the reptiles succumbed to new conditions the higher forms of life became stronger, how with these forms animal shrewdness and brain power increased until the line of development culminated in man." In closing, he said: "So strong is the testimony that geology affords to support the theory of evolution, that if it should be necessary to abandon evolution it would at the same time be necessary to give up gravitation, the correlation of physical force, and the conception of the unity of Nature."

At Detroit, Dr. Charles W. Stiles was chosen secretary of this section, but as Dr. Stiles was sent to Berlin as scientific *attaché* to the United States embassy there, he resigned, and Prof. Robert T. Jackson, of Harvard University, was chosen to fill the vacancy.

The following-named papers were read and discussed before the section: "Evolution and Migration of Hawaiian Land Shells" and "A New Classification of Fossil Cephalopods," by Alpheus Hyatt; "Notes on the Habits of Some Burrowing Bees" and "A New Method of studying Underground Insects," by John B. Smith; "On the Systematic Position of the Trilobites," "On the Carboniferous Fauna of Rhode Island," and "On the Markings of Nodontian Larvæ," by Alpheus S. Packard; "Some Points in the Oögenesis of *Virbius zostericola* Smith" and "A New Species of Pigment producing Pathogenic Bacillus," by Frederic P. Gorham; "On the Types of Vertebrate Embryos" and "On the Embryology of the Rabbit," by Charles S. Mi-

not: "Variation versus Heredity," by Henry S. Williams; "The Proposed Attempt to introduce *Blastophaga pennis* into California," by Leland O. Howard; "The Records for 1898 of Broods VII and XVII of *Cicada septendecim*," by Charles L. Marlatt; "On the Genitalia of Ants, and their Value in Classification," by William H. Ashmead; "Naples Station: General Description and Notes on Methods of Work employed there," "General Statement of Types and Figured Specimens of Fossil Invertebrates in the American Museum of Natural History," and "Measurements of Two Large Lobsters recently added to the Collections of the American Museum of Natural History," by Edmund O. Hovey; "On the Present State of our Knowledge of the North American Tertiary Mollusk-fauna," by William H. Dall; "Some New Points in Dinichthyid," by Charles R. Eastman; "Moniloporidae: A New Family of Palaeozoic Corals," by Amadeus W. Grabau; "An Historical Notice of Ross's Rosy Gull, *Rhodostethia rosea*," by John Murdoch; "Localized Stages in Growth" and "Ink and Paper for Museum Labels," by Robert T. Jackson; "On the Piscine Ancestors of the Amphibians," by Theodore Gill; "Variation in the Shell of *Helix nemoralis* in the Lexington, Va., Colony," by James Lewis Howe; "Hibernation, Transformation, and Growth of the Common Toad (*Bufo lentiginosus americanus*)" and "The Transformation of the Brook Lamprey (*Lampera wilderi*) and Parasitism among Lampreys," by Simon H. Gage; "Leidy's Genus *Ouramœba*," by William L. Poate; "The Winter Food of the Chickadee," by Clarence M. Weed; "Notes on Life History of *Protoparce carolina*" and "The Life History of *Schizoneura lanigera*," by William B. Alwood; "Remarks on Aphrophora," by Edward S. Morse; "The Phylogeny of the North American Eucleidae," by Harrison G. Dyar; "On the Anatomy and Physiology of the Spermatozoa of Invertebrated Animals," by George W. Field; and "Fauna of Cold Spring Harbor," by Charles B. Davenport.

G. Botany.—This section was presided over by Prof. William G. Farlow, who fills the chair of Cryptogamic Botany in Harvard University, and who addressed the section on "The Conception of Species as affected by Recent Investigations in Fungi." At the outset Prof. Farlow asked two questions, "What do we mean by species?" and "Do they exist in Nature, or are they created by us for our own convenience?" The best definition that has been given of species is an old one, "A perennial succession of like individuals." In the days of special creation, when every living thing was believed to have been originally created in the form in which it now exists, the permanence of species was a thing not to be discussed or doubted. Even in the early days of the association this idea was still strong. Before 1859 creation was one vast pudding in which the species had been placed by an Almighty hand, and the naturalists pulled out plums and cried, "See what a great naturalist am I—I have found a new species!" At this time, not to believe in the immutability of species was to make of one's self a scientific and almost a social outcast. From among the classes of plants with which he is most familiar, Prof. Farlow quoted the results of environment and of artificial culture. The rapidity of growth of the fungi makes this a fertile field in which to conduct experiments, and the results have been such that the speaker noted that the botanists were now following the prevailing business tendency of the age, and they are asking of the plants not so much "Who is your father?" as "Where did you come from, and what can you do?" The outcome of Prof. Farlow's argument was this: That the question whether spe-

cies exists in Nature is one that should be left to philosophy to discuss. The so-called species are attempts to arrange groups of individual plants in such a way that it may be easy to classify what is known about them, and to make this knowledge available. "The real purpose of these divisions into species," he said, "is to map out the vegetable kingdom in such a way that the horticulturist, the forester, and the physiologist may be able to obtain from the arrangement the facts needed by them in their work. Our present knowledge may not be sufficient to draw all the contours with accuracy; new information may at any time cause our classification to be remodeled. If this idea is carried out, we shall be able to lay up substantial material for future workers, but we must not delude ourselves with the hope of finding absolute, fixed standards."

The following-named papers were read and discussed before the section: "The Carposporic Type of Reproduction of Rhodophyceae," by Bradley M. Davis; "The Comparative Anatomy of the Pistils of Apocarpous Families," by Ernst A. Bessey; "Origin and Homologies of Blepharoplasts," by Herbert J. Webber; "The Blepharoplast in the Spermatogenesis of Marsilia," by Walter R. Shaw; "Observations on the Relative Moisture Content of Fruit Trees in Winter and in Summer," by Charles S. Crandall; "Some Investigations bearing upon the Symbiotic Mycoplasma Theory of Grain Rust," by Henry L. Bolley; "Half Shade and Vegetation," "Starch Distribution as affected by Fungi," and "Influence of a Wet Spring on Parasitic Fungi," by Byron D. Halsted; "Leaves of Red Astrachan Apples immune from the Attack of *Gymnosporangium macropus*," "The Work performed by the Agricultural College toward a Botanical Survey of Michigan," "Remarkable Decrease in the Size of Leaves of *Kalmia angustifolia*, apparently due to Reduction of Light," and "Some Examples illustrating Modes of Seed Dispersion," by William J. Beal; "The Effect of an Atmosphere of Ether upon Seeds and Spores," by Charles O. Townsend; "Notes on the Physiology of the Sporophyte of Certain Mosses" and "The Toxic Action of a Certain Group of Compounds," by Rodney H. True; "On the Validity of the Genera *Senna* and *Chamaecrista*," "Species Characters among the Violets," and "Types of Vegetation on the Keys of South Florida," by Charles L. Pollard; "Potato as a Culture Medium, with Some Notes on a Synthesized Substitute" and "Some Little-used Culture Media which have proved Valuable for Species Differentiation," by Erwin F. Smith; "Temperature and Transportation of Desert Plants," by Daniel T. McDougal; "The Brown-Spot Disease of Apple Leaves, *Phyllosticta pirina*, and Fungus Forms associated therewith," by William B. Alwood; "Notes on Some Diseases of Southern Pines," by Hermann von Schrenk; "The Botanic Garden at Buitenzorg, Java," by David G. Fairchild; "Notes on the Strand Flora of Florida," by Herbert J. Webber; "Notes on the Relative Infrequency of Fungi upon the Trans-Missouri Plains and the Adjacent Foothills of the Rocky Mountains," by Charles E. Bessey; "Fermentation without Live Yeast Cells," by Katherine E. Golden and Carleton G. Ferris; "Deterrent Action of Salt in Yeast Fermentation," by Katherine E. Golden; "Fungus Gardening as practiced by the Termites in West Africa and Java," by Orator F. Cook and David G. Fairchild; "The Biology of Cheese Ripening," by S. Moulton Babcock and H. L. Russell; "On the Occurrence of a Yeast Form in the Life Cycle of *Sphaeropsis malorum* Peck," by William B. Alwood; "Observations on Stewart's Sweet-Corn Germ," by Erwin F. Smith; "A Bacteriological Study of Pear Blight," by Lillian Snyder; "Life

History and Characteristics of the Pear-Blight Bacillus," by Merton B. Waite; "Effect of Fertilizers on the Germination of Seeds," by Gilbert H. Hicks; "Development of the Pollen Grain in Symplocarpus and Peltandra," by Benjamin M. Duggar; "The Embryology of Taxus," by Elias J. Durand; "Notes on Some Monocotyledonous Embryo Sacs" and "Studies Relative to the Perigynium of the Genus Cayex," by Karl M. Wiegand; "Observations on Some Hybrids between *Drosera intermedia* and *Drosera filiformis*," by John M. Macfarlane; "On the Rapidity of Circumnutation Movements in Relation to Temperature," by E. Simons and R. E. B. McKenney; "General Characteristics of the Dune Flora of Southeastern Virginia" and "Vegetation of the Wooded Fresh-Water Swamps of Southeastern Virginia," by Thomas H. Kearney, Jr.; "Notes on Arctic Willows," by W. W. Rowlee; "Some Steps in the Life History of Asters," by Edward S. Burgess; "The Pleistocene and Plant Distribution in Iowa," by T. H. Macbride; "A Self-registering Transpiration Machine," by Edward B. Copeland; "Methods of studying the Sap Pressure of the Sugar Maple," by Lewis R. Jones; "The Seeds and Seedlings of Some Amentifera," by W. W. Rowlee and George T. Hastings; "The Morphology and Taxonomic Value of the Fruits of Grasses," by P. Beveridge Kennedy; "The Caryopsis of the Graminæ" and "The Ecological Distribution of Colorado and Wyoming Plants," by L. H. Pammel; "Fertilization of the Muskmelon Flower," "Notes on destroying *Comptonia Asplenifolia*," and "Length of Time from Blossoming until Seed Development of *Leucanthemum vulgare*," by William Rane.

H. *Anthropology*.—The presiding officer of this section was Prof. J. McKeen Cattell, of Columbia University, New York, who is also well known as the editor of "Science." The subject of his address was "The Advance of Psychology." He said in part: "It is not strange that psychology should be among the later born of the sciences, for sciences dealing with man, life, and matter must rest one upon another, the last at the bottom; so psychology is willing to grant the past to the others, but claims the twentieth century for its own. The development of colleges into universities gave a chance for freedom of election in studies, thus opening the field for psychology. The present popularity of the study is shown by the 365 students in Dr. Munsterberg's classes in empirical psychology in Harvard last year. Eighteen doctorates, with psychology as a major subject, were given in American universities this year, more than in any other science except chemistry, and six times as many as in physics. Under the guidance of philosophy, psychology became at times unreal and imaginative, and needed to be crossed with natural science. This has been done by the developments of physiological psychology, in which Prof. Munsterberg, of Harvard, has played a notable part. England has had worthy successors to Locke, Berkeley, and Hume, in Bain, Ward, and Stout. The first laboratory in Cambridge University was founded by the author. Psychology in America before 1800 has as brief a history as the alleged chapter on snakes in the natural history of Iceland. Twenty years ago Prof. James, of Harvard, published his series of striking articles culminating in the issue of his 'Principles of Psychology.' The first American laboratory was started in Johns Hopkins in 1883 by Prof. Hall. The first chair of Psychology was founded in Johns Hopkins for me. The department at Harvard is now unequalled in any university on earth. With James, Munsterberg, Royce, Santozona, McDougal, and others, there is more reason for a German student to come to Harvard than for American students to go to Germany to study psychology."

The following-named papers were then read and discussed: "Typological Analysis" and "Anthropological Terminology," by Daniel G. Brinton; "Sophiology, or the Science of the Evolution of Opinion," by John W. Powell; "Papago Medicine" and "Some Definitions in Anthropology," by W. J. McGee; "Anthropological Problems of the Pacific Slope" and "Museum Presentation of Anthropology," by William H. Holmes; "The Significance of the Garment: A Study of the Omaha Tribe," by Miss Alice C. Fletcher; "The Earth Lodge," by Miss Alice C. Fletcher and Washington Matthews; "The Harmonic Structure of Indian Songs," by J. C. Fillmore; "Ritual of the Sacred Pole of the Omahas," by Francis La Flesche; "The Survival of African Music in America," by Mrs. Jeanette Robinson Murphy; "Some of the Evidences that Northmen were in Massachusetts in Pre-Columbian Times," by Miss Cornelia Horsford; "Subjects relating to the Physical Anthropology of North American Indians," by George A. Dorsey; "The Smith Sound Eskimo," by Alfred L. Kroeber; "The Maori of New Zealand: His History and Country," by Hugh H. Lusk; "Moros, or Malay Pirates of the Southern Philippines" and "The Philippine Islands and their People," by Dean C. Worcester; "The Tools of the American Pioneer" and "The Origin of Domesticated Animals," by Henry C. Mercer; "Burial Customs of the Ancient Zapotecs of Southern Mexico" and "Notes on the Lacandon Indians of Mexico," by Marshall H. Saville; "Tomahawk and Shield" and "Examples of Primitive Fire Working from Florida," by Frank H. Cushing; "Art in Prehistoric Times," "Prehistoric Musical Instruments," and "Arrow Points, Spearheads, and Knives," by Thomas Wilson; "Problem of the Rechaheecian Indians of Virginia" and "The Swastika and other Marks among the Eastern Algonkians: A Preliminary Study," by William W. Tooker; "The Water Burial Time," by Stansbury Hagar; "Time Reckoning among Early People" and "The Rite of Circumcision among the Early Races," by Robert J. Floody; "Anthropology, not Sociology, as an Adequate Philosophy," by Daniel Folkmar; "Science the Basis of Morals," by M. A. Clancey; "Variations of the Normal Tibia" and "Anthropological Differences between Typical White and Negro Girls of the Same Age," by Arles Hrdlicka; "Résumé of Recent Studies on the Origins of European Races" and "Presentation of a Bibliography of the Anthropology and Ethnology of Europe," by William Z. Ripley; "Typical American Students, Illustrated by Charts and Statues," by Dudley A. Sargent; "A New Kymographion, a New Chronoscope," by George W. Fitz; "Anthropometric Instruments," by J. McKeen Cattell; "Psychology and Art," by Hugo Munsterberg; "The New Theory of the Light Sense," by Mrs. C. Ladd Franklin; "In Man, what Factors are due to Heredity and what to Environment?" a discussion by Daniel G. Brinton, W. J. McGee, and William Z. Ripley; "Social Organization and Laws of the Moki Indians" and "Korean Clan Organization," by Walter Hough; "The Otomies of Mexico," by Frederick Starr; "The Illusions of Craniometry," by Frank Baker; "Zufi Witchcraft," by Mrs. Matilda C. Stevenson; "Origin of the Confederacy of the Five Nations," by Charles H. Henning; "Is the Stringed Musical Instrument Pre-Columbian?" by Edward S. Morse; "The Norsemen the Conquerors of Britain," by Paul Du Chailu; "The Disappearance of the Cliff Dwellers," by Désiré Charnay; and "Report of Committee on the Establishment of an Anthropological Journal in America."

I. *Economic Science and Statistics*.—The presiding officer of this section was Archibald Blue, director of the Bureau of Mines, Toronto, Canada.

The subject of his address was "The Historic Method in Economics." The opening portion of Mr. Blue's address was devoted to a historic summary of the conditions that led to the organization of the various associations for the advancement of science, beginning with the German Union of Natural Philosophers, which was founded in 1822 by Dr. Lorenz Oken. He continued with the history of the British Association, which was organized in 1831; and then passing to the American Association, he gave its history, with special reference to the section on economic science and statistics. In concluding the first portion of his address he said: "The subjects of papers read in the economic sections of the British and American associations have usually appertained to the industrial life of the human race under varying conditions and circumstances, and the method of treatment has largely partaken of the concrete form. This was the case almost without exception in the first quarter of a century of the British Association, when, indeed, the only method allowed was the statistical. But ever since the enlargement of the scope of the section in 1856, the abstract or deductive method has had its exponents, and at least upon one occasion was ably represented by a president of the section—by Prof. Henry Sidgwick at the Aberdeen meeting in 1885. Personally, I favor the historical method of investigating economic subjects, which includes the use of statistics, because I find it easier to work that way. But I do not say it is the best for every one, for I think something depends on the mental bias. The man with a strong turn for philosophy prefers to study, criticise, and develop theories rather than to collect and systematize facts." Quoting eminent authorities like James Bryce, John Stuart Mill, and others, he showed their belief in the historic method of considering economical questions. "Let us not forget that society, or the state," he said, "is a developed organism, wherein every human will and passion have play and every constituent individual acts and reacts upon every other, and that to understand it aright we must know its life history. The story of nations abounds with events of every kind, transpiring under an infinite variety of conditions, each event the product of some antecedent thought or act, and each making its impress for good or ill upon the life of the community, of the nation, or of the world, according to its own intensity or impact. To study such events and their operation and influence, in so far as they relate to inquiries into the provision of subsistence for the people and the supply of revenue for the state, according to Adam Smith; or into the nature of wealth and the laws of its production and distribution, according to Mill; or into the way the wants of the people in food, clothing, shelter, fuel, etc., may be satisfied, and how the satisfaction of these wants influences the national life, and how they are in turn influenced by it, according to Roscher—this is the office of the political economist. It is not merely to discover facts, but to collate them and discover the method for ascertaining the laws of the facts." This point of view he still further emphasized by illustrations taken from historic sources, and in conclusion he called attention to the fact that in all quarters of the world "events have transpired during the lifetime of this association that are probably destined to influence society powerfully throughout the twentieth century." These he summarized, and concluded with: "All these events have quickened the world's life, and when affairs are finally adjusted we shall move, I trust, on a measurably higher plane in the twentieth century than we have moved in the nineteenth. It is inevitable that there will be social and economic changes, and it ought to be the business of econo-

mists to shape them in the light of experience to secure permanency, progress, and peace."

The following-named papers were read and discussed before the section: "The College of Forestry at Cornell University," by Bernhard E. Fernow; "High Wages in Money; or, What Money will buy, the Consequent of Low Cost of Production," "How to increase Exports and how not to," and "The Inherent Vice of Legal Tender," by Edward Atkinson; "Local Life by Local Times" and "A Study of Competition and Suburban Prices," by S. Edward Warren; "Executive Discretion in the United States," by Cora A. Benneson; "The Short Duration of School Attendance: Causes and Remedies," by Mrs. Daniel Folkmar; "The Progress of the Maritime Commerce of the World during the Past Fifty Years," by Edward L. Corthell; "Cuba: Past, Present, and Future" and "Nicaragua and the Canal," by Wolfred Nelson; "Examination of the Theory of Rent," by Edward T. Peters; "The Price of Wool," by Henry Farquhar; "The Transportation Problem," by John S. Willison; "The Formative Period of a Great City: A Study of Greater New York," by William H. Hale; "Deviations from the Normal in the Annual Rate of Agricultural Production," by John Hyde; "Railway Rates and Competition," by H. T. Newcomb; "A Sufficient Social Principle," by Charles A. Eaton; "Why not try a North American Zollverein?" by Richard T. Colburn; "The Gold Standard and the Unemployed," by Charles B. Spahr; "The Effect of Tariff Legislation on the Importation and Domestic Production of Sugar in the United States," by Frank R. Rutter; "The Ethical Function of the Economist" and "The Development of Colonial Policy," by John Davidson; "The Economic Status of the Nurse," by Mrs. Helen Davidson; "American Industrial Expositions, their Purposes and Benefits," by Marcus Benjamin; "Scientific Book-making," by Charles W. Felt; "A Plea for Manual Industrial Training in Horticulture," by William R. Lazenby; "On the United States's Alleged Policy of Imperialism, so-called, and in Connection therewith Some Reasons for and against the Proposed Anglo-Saxon Alliance," by W. Lane O'Neill; "The Economic Possibilities of Cuba," by Robert T. Hill; "The Economic Value of Good Roads," by A. W. Campbell; "The Study of Political Economy in Canada," by S. Morley Wickett; "The Agricultural Statistics of Ontario," by Charles C. James; "Canadian Forests and the Paper Industry," by Thomas Southworth; and "A Catalogue of Scientific and Technical Periodicals, 1665 to 1885," by Henry C. Bolton.

Affiliated Organizations.—Other scientific bodies, taking advantage of the gathering of so many members at the meeting of the American Association, have adopted the practice of holding meetings at the same place and contemporaneous with the American Association, but at such hours as not to interfere with the regular sessions of the larger body. This plan, which has been growing in practice, was found to be of conspicuous value in Boston, for by combining the public meeting of the society with those of the association a much larger number of papers were presented, and at the strictly business meetings a greater number of officers were usually in attendance. A conference of astronomers and physicists, similar to that which met at the dedication of the Yerkes Observatory, was held in the Harvard College Observatory on Aug. 18, 19, and 20. It adjourned to meet at a call of a committee appointed to organize a permanent national astronomical and astrophysical society. The Society for the Promotion of Engineering Education held its fifth meeting in the Massachusetts Institute of Technology on Aug. 18, 19, and 20, with

John B. Johnson, of St. Louis, Mo., as president, and Albert Kingsbury, of Durham, N. H., as secretary. The annual meeting of the Botanical Society of America was held in the Rogers Building on Aug. 19 and 20, when Lucien M. Underwood, of Columbia University, New York city, was chosen president, and George F. Atkinson, of Cornell University, Ithaca, N. Y., secretary. The tenth annual meeting of the Association of Economic Entomologists was held in the Natural History Building on Aug. 19 and 20, with Herbert Osborn, of Ames, Iowa, as president, and Charles L. Marlatt, of Washington city, as secretary. Simultaneously the Society for the Promotion of Agricultural Science met in Horticultural Hall with Byron D. Halstead, of New Brunswick, as president, and Charles S. Plumb, of Lafayette, Ind., as secretary. The American Mathematical Society held its annual meeting in the Rogers Building, on Aug. 19 and 20, with Simon Newcomb as president, and F. N. Cole, of New York city, as secretary. The seventeenth general meeting of the American Chemical Society was held contemporaneously with Section C of the association. Its president is Charles E. Munroe, of Washington city, and its secretary is Albert C. Hale, of Brooklyn, N. Y. Over 200 members were present. The Geological Society of America, of which John J. Stevenson, of New York city, is president, and Herman L. Fairchild, secretary, met in joint session with Section E on Aug. 23. The first summer meeting of the American Forestry Association was held in Horticultural Hall on Aug. 23 and 24. Its president is Francis H. Appleton, of Boston, Mass., and its secretary is George P. Whitlesey, of Washington, D. C. The American Folklore Society met with Section H on Aug. 23, and the National Geographic Society met with Section E on Aug. 25. The Botanical Club of the association, of which Daniel T. MacDougal, of Minneapolis, Minn., is president, and Arthur B. Seymour, of Cambridge, Mass., is secretary, met at intervals during the meeting, and ten papers were read and discussed before its members.

Final Sessions.—The amendments to the constitution having gone into effect at this meeting, there were in consequence but two general sessions, namely, the one with which the association began its formal meeting, and the one with which it terminated. Nearly all of the routine business was transacted by the council, and the same reported at the final session. Grants of \$50 each were made to the Committee on Standards of Measurement for work being carried on by Henry S. Carhart and to the Committee on the Ethnology of the White Race in America for instruments to be constructed by J. McKeen Cattell. Section H (anthropology) was authorized to hold a winter meeting in December, 1898, which will probably be held in Columbia University in New York city in connection with the meeting of the American Society of Naturalists and affiliated societies. The customary resolutions of thanks were offered by W. J. McGee and addresses in support of the same made by Daniel G. Brinton, Horace C. Hovey, William T. Sedgwick, H. W. Tyler, Désiré Charney, Benjamin Howard, Edward Everett Hale, and President Putnam.

In point of members the Boston meeting ranks fourth in the history of the association, but as two of the earlier meetings were in conjunction with the British Association, the present meeting has only been exceeded in registration of members by the Boston meeting of 1880, when 997 members were present as compared with 903 this year. There were 443 papers read before the association, distributed as follow: Section A, 39; B, 51; C, 90; D, 20; E, 54; F, 35; G, 56 (Botanical Club, 10); H, 55; and I, 33. The meeting was therefore an

unusually successful one, and had it not been for the excessive heat on the first days of the meeting, a much greater attendance would have been had.

The treasurer's report showed that during the year the receipts had been \$231, the expenditures \$100, and that the sum of \$5,829 was on deposit in savings banks. There were 273 persons elected to membership, and about fifty members advanced to the grade of fellows.

The Next Meeting.—Pressing invitations were received by the American Association to hold its meeting in 1899 in Philadelphia, Penn., and in Columbus, Ohio, and the council decided that the meeting should be held in the last-named place. The following officers were chosen: President, Edward Orton, Ohio State University, Columbus, Ohio. Vice-presidents of sections: A, Alexander MacFarlane, Lehigh University, Bethlehem, Pa.; B, Elihu Thomson, Thomson-Houston Electric Company, Lynn, Mass.; C, Frank P. Venable, University of North Carolina, Chapel Hill, N. C.; D, Storm Bull, University of Wisconsin, Madison, Wis.; E, J. F. Whiteaves, Canadian Geological Survey, Ottawa, Ontario; F, Simon H. Gage, Cornell University, Ithaca, N. Y.; G, Charles R. Barnes, University of Chicago, Chicago, Ill.; H, Thomas Wilson, United States National Museum, Washington, D. C.; I, Marcus Benjamin, United States National Museum, Washington, D. C. General secretary, Frederick Bedell, Cornell University, Ithaca, N. Y., Secretary of the council, Charles Baskerville, University of North Carolina, Chapel Hill, N. C. Secretaries of the sections: A, John F. Hayford, Washington, D. C.; B, William Hallock, Columbia University, New York city; C, Henry A. Weber, Ohio State University, Columbus, Ohio; D, James M. Porter, Lafayette College, Easton, Pa.; E, Arthur Hollick, Columbia University, New York city; F, Frederick W. True, United States National Museum, Washington, D. C.; G, William A. Kellerman, Ohio State University, Columbus, Ohio; H, George A. Dorsey, Field Columbian Museum, Chicago, Ill.; and I, Calvin M. Woodward, Washington University, St. Louis, Mo.

British.—The sixty-eighth annual meeting of the British Association for the Advancement of Science was held in Bristol during Sept. 7-17. The officers of the association were: President, Sir William Crookes. Section presidents: A, Mathematics and Physics, William E. Ayrton; B, Chemistry, Francis R. Japp; C, Geology, Wilfrid H. Hudleston; D, Zoölogy (and Physiology), Walter F. R. Weldon; E, Geography, George Earl Church; F, Economic Science and Statistics, James Bonar; G, Mechanical Science, Sir John Wolfe-Barry; H, Anthropology, E. W. Brabrook; K, Botany, Frederick O. Bower. General treasurer, Arthur W. Rücker. General secretaries, Edward A. Schäfer and William C. Roberts-Austen. Assistant general secretary, G. Griffith, College Road, Harrow.

General Meeting.—The association began its proceedings with a meeting of the general committee on Sept. 7, presided over by Sir John Evans, when the report of the council was presented by Secretary Schäfer, and other business attended to. Seven foreign scientists were elected foreign corresponding members, among whom were Prof. Carl Barus, of Brown University, Providence, R. I.; Dr. George W. Hill, of Columbia University, New York city; Prof. Edward W. Morley, of Adelbert College, Cleveland, Ohio; and Prof. William B. Scott, of Princeton University, Princeton, N. J. Various resolutions referred to the council for consideration and action were reported, among which was one recommending the appointment of a committee to consider the desirability of approaching the Government with a view to the establishment

in Great Britain of agricultural experiment stations similar in character to those which are producing such satisfactory results in Canada. The committee reported the work that it had performed in securing results that led to its decision. A committee appointed to urge upon the Canadian Government



SIR WILLIAM CROOKES.

the desirability of continuing its tidal survey reported that the Canadian Government replied that it was deemed advisable "to defer the prosecution of the survey for the present and to confine the work to the maintenance and operations of the tidal gauges already established and the preparation of tide tables." The British Museum, in reply to a resolution, advised the council that a bureau for ethnology would be established "as soon as certain rearrangements affecting space, etc., now in progress, shall have been finished." The treasurer reported that the receipts for the past year were £1,623 18s. 2d., and that there was a balance of £1,703 3s. 8d. in the treasurer's hands. The investments now amount, according to his report, to £11,137. Various new members of the council were chosen and the secretaries and assistant secretary re-elected. Prof. Arthur W. Rücker, having been appointed a trustee in succession to the late Lord Lyon Playfair, Prof. G. Carey Foster was elected general treasurer. The usual vote of thanks, on motion of Prof. A. B. Macallum, of Toronto, was adopted for the retiring president, Sir John Evans.

In the evening the association met in the People's Palace for the purpose of listening to the inaugural address of the president. The retiring president, Sir John Evans, occupied the chair and introduced the new incumbent as follows: He said that "he need hardly introduce his successor in the chair, for his name was known throughout the civilized world. At an early age he attained great eminence in chemistry, but he had not confined himself to chemical research, for he had experimented largely on various materials *in vacuo*, and the Crookes tube was known throughout the world. These experiments had led to more important results than the radiometer. From them had risen the Roentgen rays, the utility of which had lately been demonstrated by the application in the case of the Prince of Wales. They might look to Sir William

Crookes as the real originator of those rays." It may also be added that Sir William Crookes is a past president of the London Chemical Society and has for many years been the editor of the "Chemical News" of London.

Inaugural Address of the President.—In opening, Sir William Crookes said: "I propose first to deal with the important question of the supply of bread to the inhabitants of these islands, then to touch on subjects to which my life work has been more or less devoted. Many of my statements you may think are of the alarmist order; certainly they are depressing, but they are founded on stubborn facts. They show that England and all civilized nations stand in deadly peril of not having enough to eat. As mouths multiply, food resources dwindle. Our wheat-producing soil is totally unequal to the strain put upon it. After wearying you with a survey of the universal dearth to be expected, I hope to point a way out of the colossal dilemma. It is the chemist who must come to the rescue of the threatened communities. The consumption of wheat per head of the population (unit consumption) is over 6 bushels per annum; and taking the population at 40,000,000, we require no less than 240,000,000 bushels of wheat, increasing annually by 2,000,000 bushels, to supply the increase of population. Of the total amount of wheat consumed in the United Kingdom we grow 25 and import 75 per cent. Our stock of wheat and flour amounts only to 64,000,000 bushels—fourteen weeks' supply—while last April our stock was equal to only 10,000,000 bushels, the smallest ever recorded by 'Beerbohm' for the period of the season. Similarly, the stocks held in Europe, the United States, and in Canada, called 'the world's visible supply,' amounted to only 54,000,000 bushels, or 10,000,000 less than last year's sum total, and nearly 82,000,000 less than that of 1893 or 1894 at the corresponding period. The burning question of to-day is, What can the United Kingdom do to be reasonably safe from starvation in presence of two successive failures of the world's wheat harvest, or against a hostile combination of European nations? We eagerly spend millions to protect our coasts and commerce; and millions more on ships, explosives, guns, and men; but we omit to take necessary precautions to supply ourselves with the very first and supremely important munition of war—food. The problem is not restricted to the British Isles—the bread eaters of the whole world share the perilous prospect. In 1871 the bread eaters of the world numbered 371,000,000, and at the present time they number 516,500,000. To supply 516,500,000 bread eaters, if each bread-eating unit is to have his usual ration, will require a total of 2,324,000,000 bushels for seed and food. What are our prospects of obtaining this amount? The total supplies from the 1897-'98 harvest are 1,921,000,000 bushels. The requirement of the 516,500,000 bread eaters for seed and food are 2,324,000,000 bushels; there is thus a deficit of 403,000,000 bushels, which has not been urgently apparent owing to a surplus of 300,000,000 bushels carried over from the last harvest. We start with a deficit of 103,000,000 bushels and have 6,500,000 more mouths to feed. It follows, therefore, that one sixth of the required bread will be lacking unless larger drafts than now seem possible can be made upon early produce from the next harvest." Sir William Crookes then reviewed "the capabilities as regards available area, economic conditions, and acreage yield of the various wheat-growing countries." Concerning the United States, he said: "For the last thirty years the United States have been the dominant factor in the foreign supply of wheat, exporting no less than 145,000,000

bushels. This shows how the bread-eating world had depended, and still depends, on the United States for the means of subsistence. The entire world's contributions to the food-bearing area have averaged but 4,000,000 acres yearly since 1869. It is scarcely possible that such an average, under existing conditions, can be doubled for the coming twenty-five years. Almost yearly since 1885 additions to the wheat-growing area have diminished, while the requirements of the increasing population of the States have advanced, so that the needed American supplies have been drawn from the acreage hitherto used for exportation. Practically there remains no uncultivated prairie land in the United States suitable for wheat growing. The virgin land has been rapidly absorbed, until at present there is no land left for wheat without reducing the area for maize, hay, and other necessary crops. It is almost certain that within a generation the ever-increasing population of the United States will consume all the wheat grown within its borders, and will be driven to import, and, like ourselves, will scramble for a lion's share of the wheat crop of the world." Continuing, he described the conditions in Russia, Canada, Australasia, the various countries of Europe, South America, and Africa, and then claimed that "should all the wheat-growing countries add to their area to the utmost capacity, on the most careful calculation the yield would give us only an addition of some 100,000,000 acres, supplying, at the average world yield of 12.7 bushels to the acre, 1,270,000,000 bushels—just enough to supply the increase of population among bread eaters till the year 1931. By means of fertilizers containing nitrogen the yield of wheat per acre could be increased from 12.7 bushels to at least 20 bushels per acre, as had been shown by experiments at Rothamsted, where the high value of 36.4 bushels per acre had been obtained. The source and supply of nitrogen-yielding fertilizers was then discussed and the conclusion reached that it would be necessary to take it from the atmosphere by means of electricity. We start with a shortage of wheat, and the natural remedy is to put more land under cultivation. As the land can not be stretched, and there is so much of it and no more, the object is to render the available area more productive by a dressing with nitrate of soda. But nitrate of soda is limited in quantity, and will soon be exhausted. Human ingenuity can contend even with these apparently hopeless difficulties. Nitrate can be produced artificially by the combustion of the atmosphere. Here we come to finality in one direction; our stores are inexhaustible. But how about electricity? Can we generate enough energy to produce 12,000,000 tons of nitrate of soda annually? A preliminary calculation shows that there need be no fear on that score; Niagara alone is capable of supplying the required electric energy without much lessening its mighty flow."

The remainder of his address was devoted to a review of the recent advances in chemistry and physics. The brilliant researches in low temperatures by Dewar were mentioned. The new elements krypton, neon, and metargon, discovered by Ramsay, and coronium, discovered by Nasini, were alluded to. Electric signaling across moderate distances without connecting wires as introduced by Marconi and its future practical applications received attention. The phenomenon discovered by Zeeman, that a source of radiation is affected by a strong magnetic field in such a way that light of one refrangibility becomes divided usually into three components, two of which are displaced by diffraction analysis on either side of the mean position and are oppositely polarized to the third

or residual constituent, was referred to. The work on the relationship between ether and matter by Larmor received brief mention. At greater length he discussed the development of the researches that began with Röntgen's discovery of his peculiar rays of light, and in this portion of his address mentioned the growing acceptance of his own theory of a fourth state of matter announced in 1881. The fractioning of yttria, on which he began working in 1883, has been since continued and has recently culminated in "absolute evidence that another member of the rare earth groups has been added to the list." For this new "asteroid of the terrestrial family" he proposed the name monium. In closing he referred to his connection many years ago to certain psychic researches, and he boldly reiterated his belief "that thoughts and images may be transferred from one mind to another without the agency of the recognized organs of sense—that knowledge may enter the human mind without being communicated in any hitherto known or recognized ways."

Proceedings of the Sections. A. Mathematics and Physics.—This section was presided over by Prof. William E. Ayrton, who is Professor of Applied Physics in the Guilds' Central Technical College, in London. In opening he referred to the fact that "Section A this year is very fortunate in having its meetings associated with those of an International Conference on Terrestrial Magnetism and Atmospheric Electricity, which is attended by the members of the Permanent Committee for Terrestrial Magnetism and Atmospheric Electricity of the International Meteorological Conference. It has been arranged that this permanent committee, of which Prof. Rücker is the president, shall form part of the general committee of Section A, and also shall act as the Committee of the International Conference, which will itself constitute a separate department of Section A." Continuing, he said: "Among the various subjects which it is probable that the conference may desire to discuss there is one to which I will briefly refer, as I am able to do so in a triple capacity. The earth is an object of much importance, alike to the terrestrial magnetician, the telegraph electrician, and the tramway engineer; but while the first aims at observing its magnetism, and the second rejoices in the absence of the earth currents which interfere with the sending of messages, the third seems bent on converting our maps of lines of force into maps of lines of tramway." Thus he showed how electric traction seemed destined to ruin magnetic observations near towns, indeed had already done so in the United States and British North America. The second topic which he presented before the section was concerning "Science Abstracts," which, recently established, had for its aim to "produce in a single journal a monthly record in English of the most important literature appearing in all languages on physics and its many applications." The general proposition of the indebtedness of industry to pure science he demonstrated by several illustrations, after which he discussed with much interest some of his own studies on the laws that govern odors. He said: "There is a generally accepted idea that metals have smells, since if you take up a piece of metal at random, or a coin out of your pocket, a smell can generally be detected." Then, discussing the various odors from the metals, he concluded: "As regards the explanation of these metallic smells, which have hitherto been attributed to the metals themselves. This, I think," he said, "may be found in the odors produced when the metals are rubbed with linen soaked in dilute sulphuric acid. For here, apart from any contact of the metal with the skin, the aluminum, tin, and

zinc are found to smell alike; the copper group also smell alike, and the iron and steel give rise to the characteristic 'iron' smell, which, in this case, can be detected some feet away. Now, it is known that when hydrogen is evolved by the action of sulphuric acid on iron, the gas has a very unpleasant smell, and this is due to the presence of hydrocarbons, and especially of paraffin. I have been therefore led to think that the smell of iron or steel when held in the hand is really due to the hydrocarbons to which the operation gives rise; and it is probable that no metallic particles, even in the form of vapor, reach the nose or even leave the metal. Hence, although smell may not, like sound, be propagated by vibration, it seems probable that particles of the metal with which we have been accustomed to associate the particular smell may no more come in contact with the olfactory nerves than a sounding musical instrument strikes against the drum of the ear." His experiments made for the purpose of determining the diffusion of smell were then presented, as well as some tests on the power of different substances to absorb various scents from the air. In conclusion he said: "In presenting this brief introduction to the physics of smell I have aimed at indicating the vast territory that waits to be explored. That it will be found to contain mines of theoretical wealth there can be no doubt, while it is probable that a luxuriant growth of technical application would spring up later on. To conclude, I may say that one of my fondest hopes is that an inquiry into the physics of smell may add another to the list of wide regions of knowledge opened up by the theoretical physicist in his search for answers to the questions of the technical man."

Subsequently the following-named papers were read and discussed before the section: "Lenses not of Glass," by J. W. Gifford; "Conservation of Energy in the Human Body," by Wilbur O. Atwater and Edward B. Rosa, of Wesleyan University, Middletown, Conn.; "Articulation and Acoustics of the Spirate Fricative Consonants," by R. J. Lloyd; "Pneumatic Analogue of Potentiometer" and "Dalton's Law," by W. N. Shaw; "On a Comparison between charging a Secondary Cell at Constant Potential and at Constant Current, more especially as regards Efficiency," by A. A. Cohen and J. M. Donaldson; "A Magnifying or Bellowing Telephone," by Oliver Lodge; "An Elaborate Apparatus for the Measurement of Small Differences in Resistance," by E. H. Griffiths; "The Dynamical Theory of Refraction and Anomalous Dispersion" and "Continuity of Undulatory Theory for Sound, Elastic Solid, Light, and Electric Waves," by Lord Kelvin; "Heat of Combination of Metals in the Formation of Alloys," by A. Galt; "An Instrument for measuring Electric Pressure or Current by Means of the Increase of Resistance of a Fine Platinum Wire," by Hugh L. Callendar; "The Dissipation of Energy in the Dielectric of a Condenser," by Edward B. Rosa and A. W. Smith, of Wesleyan University, Middletown, Conn.; "Total Immersion Hydrometers," by A. W. Warrington; "Experiments in Radiation from a Source of Light in a Magnetic Field," by Thomas Preston; "Stream Line Motion with Viscous Fluids in Two Dimensions and in Three Dimensions," by H. S. Heleshaw; "Analogies between the Yearly Ranges of some Meteorological and Magnetic Phenomenon," by Dr. Van Rijckersels; "Exploration of the Upper Air by Means of Kites at Blue Hill Observatory, Massachusetts, U.S.A.," by A. Lawrence Rotch, Boston, Mass.; "The Classification of Polydiurnal Weather Types in Relation to the Prolongation of the Daily Forecast in Western Europe," by Douglas Archibald; "Rainfall of the Southwestern Coun-

ties of England," by John Hopkinson; "Discussion of Results of the Recent Solar Eclipse Expedition," by H. H. Turner and Sir Norman Lockyer; "Velocity of Electricity in the Electric Wind," by A. P. Chattock; "Carbon-Consuming Cell of Jaques," by S. Skinner.

Also a "Report of the Committee on comparing and reducing Magnetic Observations," a "Report of the Committee on Ben Nevis Observatory," a "Report of the Committee on Meteorological Photography," a "Report of the Committee on Seismological Investigations," a "Report of the Committee on the Establishment of a Meteorological Observatory on Mount Royal, Montreal," and a "Report of the Committee on Electrolysis," were presented and discussed.

During the meeting the International Conference on Terrestrial Magnetism, under the presidency of Prof. Arthur W. Rücker, held sessions, at which subjects connected with earth currents and effect of altitude on the terrestrial magnetic elements were discussed. On Sept. 13 the section on mechanical science met conjointly with Section A and the International Conference, when the subject of "Magnetic and Electrolytic Actions of Electric Railways" was discussed. This discussion brought out the facts that several magnetic observatories, including two in the United States (Cambridge and Washington), had been rendered useless by the disturbance caused by electric railways in their neighborhood.

B. *Chemistry*.—"Stereochemistry and Vitalism" was the subject of the address of the vice-president of the section, Prof. Francis R. Japp, who fills the chair of Chemistry in the University of Aberdeen. At the outset he said that certain portions of the earlier works of Pasteur furnished "a reply to the most fundamental question that physiology can propose to itself—namely, whether the phenomena of life are wholly explicable in terms of chemistry and physics; in other words, whether they are reducible to problems of the kinetics of atoms, or whether, on the contrary, there are certain residual phenomena inexplicable by such means, pointing to the existence of a directive force which enters upon the scene with life itself, and which, while in no way violating the laws of the kinetics of atoms—while, indeed, acting through these laws—determines the course of their operation within the living organism. I shall confine myself to a single class of chemical facts rendered accessible by Pasteur's researches on optically active compounds, and, considering these facts in the light of our present views regarding the constitution of organic compounds, I shall endeavor to show that living matter is constantly performing a certain geometrical feat which dead matter, unless indeed it happens to belong to a particular class of products of the living organism, and to be thus ultimately referable to living matter, is incapable—not even conceivably capable—of performing. In order to make clear the bearing of the results of stereochemical research on this physiological problem, it will be necessary to give a brief sketch of the stereochemistry of optically active organic compounds, as founded by Pasteur, and as further developed by later investigators." Following this he spoke of Kekule's celebrated paper "On the Constitution and Metamorphoses of Chemical Compounds and the Chemical Nature of Carbon," concerning which he claimed that it "was from this union of Pasteur's theory with that of Kekule that modern stereochemistry sprang." Continuing his discussion, he showed that "whenever we prepare artificially, starting either with the elements or with symmetric compounds, any organic compound which, when it occurs as a natural product of the living organism, is optically active, the primary product of our laboratory reactions, however

closely it may in other respects resemble the natural product, differs from it in being optically inactive." This barrier still exists, and he quoted from Pasteur the statement: "To transform *one inactive compound into another inactive compound*, which has the power of resolving itself simultaneously into a right-handed compound and its opposite, is in no way comparable with the possibility of transforming an *inactive compound into a single active compound*. This is what no one has ever done; it is, on the other hand, what living nature is doing unceasingly before our eyes." Then, reviewing the recent work in stereochemistry, he contended that "we thus arrive at the conclusion that the production of single asymmetric compounds, or their isolation from the mixture of their enantiomorphs, is, as Pasteur firmly held, the prerogative of life. Only the living organism, with its asymmetric tissue, or the asymmetric products of the living organism, or the living intelligence with its conception of asymmetry, can produce this result. Only asymmetry can beget asymmetry." His conclusions were: "Non-living, symmetric matter—the matter of which the inorganic world is composed—interacting under the influence of symmetric forces to form asymmetric compounds, always yields either pairs of enantiomorphous molecules (racemoid form) or pairs of enantiomorphous groups united within the molecule (meso-form), the result being, in either case, mutual compensation and consequent optical inactivity. The same will hold good of symmetric matter interacting under the influence of asymmetric forces (supposing that such forces exist), provided that the latter are left to produce their effect under conditions of pure chance. If these conclusions are correct, as I believe they are, then the *absolute origin* of the compounds of one-sided asymmetry to be found in the living world is a mystery as profound as the absolute origin of life itself. The two phenomena are intimately connected, for, as we have seen, these symmetric compounds make their appearance with life, and are inseparable from it. How, for example, could lavo-ratory protein (or whatever the first asymmetric compound may have been) be spontaneously generated in a world of symmetric matter, and of forces which are either symmetric, or, if asymmetric, are asymmetric in two opposite senses? What mechanism could account for such selective production? Or if, on the other hand, we suppose that dextro- and laevo-protein were simultaneously formed, what conditions of environment existing in such a world could account for the survival of the one form and the disappearance of the other? Natural selection leaves us in the lurch here, for selective consumption is, under these conditions, as inconceivable as selective production. No fortuitous concurrence of atoms, even with all eternity for them to clash and combine in, could compass this feat of the formation of the first optically active organic compound. Coincidence is excluded, and every purely mechanical explanation of the phenomenon must necessarily fail. I see no escape from the conclusion that at the moment when life first arose a directive force came into play—a force of precisely the same character as that which enables the intelligent operator, by the exercise of his will, to select one crystallized enantiomorph and reject its asymmetric opposite."

Subsequently the following-named papers were read and discussed: "On the Extraction from Air of the Companions of Argon, and on Neon," by William Ramsay and Morris W. Travers; "A New Stand for Electrolytic Analysis," by Hugh Marshall; "Some Researches on the Thermal Properties of Gases and Liquids," by Sydney Young; "The Action exerted by Certain Metals and Organic Substances on a Photographic Plate," by William J. Russell; "The Action of Bacteria on Photographic Plates," by Percy

F. Frankland; "Further Experiments on the Absorption of the Röntgen Rays," by John H. Gladstone and Walter Hibbert; "The Cooling Curves of Fatty Acids," by A. P. Laurie and E. H. Strange; "The Equivalent Replacement of Metals," by Frank Clowes; "Juvenile Research," by Henry E. Armstrong; "The Analysis of Dorsetshire Soils," by C. M. Lux-Moore; "Green Cobaltic Compounds," by R. G. Durrant; "Recent Advances in the Tanning Industries," by J. G. Parker; "A New Class of Coloring Matters," by E. Noelting; "The Oxidation of Glycerin in the Presence of Ferrous Iron," by J. H. Fenton and Frank Jackson; "Action of Hydrogen Peroxide on Carbohydrates in the Presence of Iron Salts," by R. S. Morrell and J. M. Croft; "An Experiment illustrating the Effect on the Acetylene Flame of Varying Proportions of Carbon Dioxide in the Gas," by J. Emerson Reynolds; "A Ten-Candle Lamp to be used as a Standard of Light" and "On a Convenient Form of Drying Tube," by A. G. Vernon Harcourt; "Standards of Purity for Sewage Effluents," by Samuel Rideal; "Action of Certain Substances on the Undeveloped Photographic Image," by Charles H. Bothamley; "Action of Ammonia in Gun Cotton," by W. R. Hodgkinson and Capt. Owen.

Also a "Report of the Committee for deciding on Electrolytic Methods of Quantitative Analysis," a "Report on the Bibliography of Spectroscopy," a "Report on the Action of Light upon Dyed Colors," a "Report of the Committee on the teaching of Science in Elementary Schools," a "Report of the Committee on the Carbohydrates of the Cereal Straws," and a "Report of the Committee on the Promotion of Agriculture," were presented before the section.

C. *Geology*.—The presiding officer of this section was Mr. Wilfrid H. Hudleston, a past president of the Geological Society. After brief reference to the circumstance that last year many of the geologists were in Canada, and others in attendance at the International Geological Congress in St. Petersburg, he called attention to the fact that this year the gathering was a domestic one, indeed, "in that part of England which has no small claim to be regarded as the cradle of English geology." Accordingly he devoted the greater portion of his address to local considerations. For if "Europe is to be regarded as presenting a geological epitome of our globe, and if Great Britain is an epitome of Europe, then, without doubt, this particular block of the southwest which has Bath for its more exact center, with a radius, say, of fifty miles, may be said to contain almost everything to be found on the geological scale, except the very oldest and the very youngest rocks; while east of the Severn and south of the Bristol Channel true boulder clay is rare or absent." Recent information, the result of strides made during the last quarter of a century, were discussed, beginning with Palaeozoic rocks, continuing through the Mesozoic, and concluding with the work done on the Tertiary, Pleistocene, and recent formations. While most of the remarks were devoted to matters pertaining to the arrangement of strata, still here and there a practical question was taken up. Concerning the probability of finding workable coal east of the proved Somersetshire field, he said: "Prospectors should bear in mind the warning of Ramsay, that the basins containing coal are but few in comparison with the number of basins throughout the Palaeozoic rocks. No doubt the line indicated is more favorably situated for coal exploration than the eastern counties, where, for instance, the Coal Boring and Development Company has lately gone into liquidation. The unsuitability of East Anglia as a field for coal prospecting was insisted on in my second anniversary address to the

Geological Society, and the results seem to have been very much what might have been expected. If coal is to be found beneath the secondary rocks the line of search should be carried through the counties of Kent, Surrey, Berkshire, and Wiltshire, though the three latter counties have hitherto been content to leave their underground riches unexplored. The Kent Coal Exploration Company is doing some good work with a reasonable chance of success, though if they wish to find coal sufficiently near the surface they had better adhere as much as possible to the line of the North Downs, since operations on the Sussex side are only too likely to be within the influence of the Kimmeridgian Gulf, which was proved to exist at Battle (Netherfield). Mr. Etheridge, I hope, will have something to tell us as to the progress of the Kent Collieries Corporation, who now carry on the work at Dover."

The following-named papers were read and discussed: "The Geology of the District surrounding Bristol," by Lloyd Morgan; "The Builders of Clifton Rocks," "Work of Encrusting Organisms by the Formation of Limestone," and "The Relation and Extension of the Franco-Belgian Coal Field to those of Kent and Somerset," by Edward B. Wethered; "The Revision of South Wales and Monmouthshire (the South Wales Coal Field) by the Geological Survey," by Aubrey Strahan; "Exploration of Two Caves at Uphill, Weston-super-Mare, containing Remains of Pleistocene Mammalia," by H. Bolton; "Comparative Actions of Subaerial and Submarine Agents in Rock Decomposition," by Thomas H. Holland; "Arborescent Carboniferous Limestones from Brentry Hill, near Henbury, Bristol," by Horace B. Woodward; "The Comparative Value of Different Kinds of Fossils in determining Geological Age," by Othniel C. Marsh, of Yale University, New Haven, Conn.; "The Aggregate Deposits and their Relations to Zones," by J. F. Blake; "The Geological Structure of the Malvern and Abberley Ranges," by Theodore Groom; "The Probable Source of the Upper Felsitic Lava of Snowdon," by J. R. Dakyns; "On the Occurrence of Arenig Shales beneath the Carboniferous Rocks at the Menai Bridge," "On an Uplift of Bowlders at Llandegfan," and "The Glacial Sections at Moel Trifaen," by Edward Greenly; "The Age and Origin of the Granite of Dartmoor," by Alexander Somervail; "On the Comparative Dimensions of Some Atoms," "On the Leadhillite in Ancient Lead Slags from the Mendip Hills," and "On a Supplementary List of British Minerals," by W. L. Addison; "On the Laws of Climatic Evolution," by Marsden Marson; "The Sub-Oceanic Physical Features of the North Atlantic," by Edward Hall; "The Eastern Margin of the North Atlantic Basin," by Wilfrid H. Hudleston; "The Great Earthquake of 1897 from a Seismological Point of View," by R. D. Oldham; "Worked Flints from Glacial Deposits of Cheshire and the Isle of Man," by J. Lomas; "Some Dinosaurian Remains from the Oxford Clay of Northampton," by Charles W. Andrews; "Restoration by Charles Knight of the Extinct Vertebrates Brontosaurus, Phenacodus, Coryphodon, and Teleoceras," by Henry F. Osborn, of Columbia University, New York city; "Action of Waves and Tides on the Movement of Material on the Seacoast," by W. H. Wheeler; "Further Exploration of the Ty Nenydd Cave at Tremerichon, North Wales," by G. C. H. Pollen; and "Further Exploration of the Fermanagh Caves," by Thomas Plunkett.

Also a "Report of the Committee appointed for collecting Photographs of Geological Interest in Britain and in Canada," a "Report of the Committee of Fossil Phyllopora," a "Report of the Committee on Life Zones in the British Carboniferous

Rocks," a "Report of the Committee on the Flora and Fauna of the Interglacial Beds in Canada," a "Report of the Committee appointed to examine the Conditions under which Remains of the Irish Elk are found in the Isle of Man," a "Report of the Committee on the Erratic Blocks of the British Isles," a "Report of the Committee for Seismological Investigation," a "Report of the Committee appointed to explore Certain Caves in the Malay Peninsula, especially near Singapore, and to collect their Living and Extinct Fauna," a "Report of the Committee appointed to consider a Project for investigating the Structure of a Coal Reef by boring and sounding," and a "Report on the Euryptends of the Pentlands."

D. Zoölogy (and Physiology).—This section was presided over by Prof. W. F. R. Weldon, who holds the chair of Comparative Anatomy and Zoölogy at University College, in London. In his address he discussed some of the principal objections which are urged against the theory of natural selection, and described the way in which, in his opinion, these objections could be met. He said the theory of natural selection is a theory of the importance of differences between individual animals. "Three principal objections are constantly brought forward against this theory. The first is that the species of animals which we know fall into orderly series, and that purely fortuitous variations can not be supposed to afford opportunity for the selection of such orderly series; so that many persons feel that if the existing animals are the result of selection among the variable offspring of ancestral creatures, the variations on which the process of natural selection had to act must have been produced by something which was not chance. The second objection is that minute structural variations can not in fact be supposed to affect the death rate so much as the theory requires that they should. And it is especially urged that many of the characters by which species are distinguished appear to us so small and useless that they can not be supposed to affect the chance of survival at all. The third objection is that the process of evolution by natural selection is so slow that the time required for its operation is longer than the extreme limit of time given by estimates of the age of the earth." These objections he discussed by applying the law of chance to various phenomena, showing thereby that this law "enables one to express easily and simply the frequency of variations among animals." In conclusion he said: "I hope I have convinced you that the action of natural selection upon such fortuitous variations can be experimentally measured, at least in the only case in which any one has attempted to measure it. I hope I have convinced you that the process of evolution is sometimes so rapid that it can be observed in the space of a very few years. I would urge upon you in conclusion the necessity of extending as widely as possible this kind of numerical study. The whole difficulty of the theory of natural selection is a quantitative difficulty. It is the difficulty of believing that in any given case a small deviation from the mean character will be sufficiently useful or sufficiently harmful to matter. That is a difficulty which can only be got rid of by determining in a number of cases how much a given variation does matter; and I hope I have shown you that such determination is possible, and if it be possible, it is our duty to make it."

The following-named papers were read and discussed: "As to whether *Præcis octaria-natalensis* and *Præcis sesamus* are Seasonal Forms of the Same Species," by Edward B. Poulton; "Photographic Records of Pedigree Stocks," by Francis Galton; "Preliminary Note on the Races and Migration of

the Mackerel" and "A Proposed Biological and Physical Investigation of the British Channel," by Walter Garstang; "Phylogeny of the Arthropod Amnion," by Arthur Willey; "Microchemistry of the Cells" and "The Detection of Phosphorus in Tissues," by Alexander B. Macallum; "A Race of protectively Colored Mice from North Bull," by H. Lyster Jameson; "The Life Conditions of the Oyster, Normal and Abnormal," by William A. Herdman; "An Experimental Inquiry into the Struggle for Existence by Certain Insects," by Edward B. Poulton and Miss Cora B. Sanders; "An Account of the Methods and Apparatus adopted for rearing Larvæ to produce Pupæ of Different Shades," by Miss Cora B. Sanders; "Animal Intelligence as an Experimental Study," by C. Lloyd Morgan; "On the Families of Saurepodous Dinosaurs," by Othniel C. Marsh, of Yale University, New Haven, Conn.; "So-called Fascination of Snakes," by A. J. Harrison; "A New Theory of Retrogression," by Charles H. Read; "A Circulating Apparatus for Use in Researches in Color Physiology," by F. W. Gamble and W. F. Keeble; "Scientific Experiments to test the Effects of Trawling in the Waters of Scotland, 1886-1897," by W. C. McIntosh; "Musical Organs in Spiders," by R. J. Pocock; "The Origin of the Vertebrate Notochord and Pharyngeal Clefts," by A. T. Masterman; "Le Développement du Cœur chez les Tuniciers; Quelques Considérations sur la Phylogénie des Ascidies Simples," by Charles Julin; "The Classification of the Pelmatozoa," by Francis A. Bather; "A Demonstration of Dr. Field's Card Catalogue of Zoological Literature," by William E. Hoyle.

Also a "Report of the Committee on the Physiological Effects of Peptone and its Precursors when introduced into the Circulation" and a "Report on Caves in the Malay Peninsula" were read and discussed.

E. Geography.—Over this section Col. George Earl Church, a fellow of the Royal Geographical Society, presided. The subject of his address was "Argentine Geography and the Ancient Pampean Sea."

He said in opening: "Instead of addressing you upon geography as a science or summarizing the triumphs of explorers during the past year, I shall invite you to accompany me to southern South America—a step toward the antarctic regions—and let me try to add to your knowledge of Argentine geography and the ancient Pampean Sea." Then, after discussing in many of its phases the conditions and extent of the Pampean Sea, which he estimated to have covered an area of about 600,000 square miles, and to have been about 1,400 miles long, with an average width of about 400 miles during its existence some seventy thousand years ago, he referred to the climatic conditions of that time and said: "To the west, the Andes served as a lofty condenser, which, for a distance of over 2,500 miles, guided the cold polar currents toward the equator and safeguarded their vigor. Similarly, the Brazilian highlands largely confined them to the great valleys as they swept northward to do battle in the heart of South America with the warm vapors generated from the Pampean Sea and ancient lake, and the steaming, tropical basin of the Amazon. The rainfall over the inter-Andean region must have produced many large lakes similar to Lake Titicaca, and a great river system, which, tributary to the Colorado, swelled it into a stream of the first rank, pouring into it the sand and silt which have completely filled the enormous estuary, the outline of which is still traceable. One may believe that an increased rainfall gave a luxuriant vegetation, where herds of gigantic mammalia found feeding ground; from which, from time to time, they were swept, by storm or swollen river, into the Pampean Sea, where also they may have

lost their lives in other ways, their remains being distributed over it by the currents. To a minor degree the ancient sea and lake must have affected the inter-Andean climate, from Cuzco to the south, throughout the lacustrine basin of Titicaca, giving it greater rainfall and fertility than it now has. Geological examinations show that Titicaca was once one of the large lakes of the world, and that it has slowly been drying up. Savage man may have lived in South America on the mountain slopes round the ancient sea. If so, he possibly hunted the mastodon, the megatherium, and numerous other of the gigantic fauna which probably were co-existent with him. His only highway, between the eastern and western halves of the continent, must have crossed the elevated region at the head of the Pampean Sea, lying between 17° and 19° south latitude, which is still the only route in use for communication by land between Bolivia and Matto Grosso."

The following-named papers were read and discussed before the section: "On Waves," by Vaughan Cornish; "The Temperature and Salinity of the Surface Waters of the North Atlantic," by H. N. Dickson; "The Oceanographical Results of the Austro-Hungarian Deep Sea Expeditions of 1890-'96," by K. Natterer; "On the Distribution of the Oceans and Continents," by J. Walter Gregory; "On Earthquake Study," by John Milne; "The Valley of the Yang-tze," by Mrs. Isabella L. Bishop; "A Description of the Great Assam Earthquake of June 12, 1897," by R. D. Oldham; "A Journey across the Sierra Madre from Mazatlan to Durango," by O. H. Howarth; "On Political Geography," by J. Scott Keltie; "The Prospects of Antarctic Research," by Hugh R. Mill; "National Photographic Record," by Sir Benjamin Stone; "On Sokotra," by Mrs. Theodore Bent; "On the Upper Nile," by Sir C. W. Wilson; "Twenty-eight Years in Central Australia," by Louis de Rougemont; "On Tirah," by Sir T. Hungerford Holdich; "Christmas Island in the Indian Ocean," by Charles W. Andrews; "A Visit to Northeastern Kamchatka," by G. E. H. Barrett Hamilton; "The Approaching Economic Revolution in China," by G. G. Chisholm; "On the Great Globe," by E. Reclus; and "The Outlook Tower, Edinburgh," by Patrick Geddes.

Also a "Report of the Committee on the Climatology of Africa" was read and discussed.

F. Economic Science and Statistics.—This section was presided over by Dr. James Bonar, who delivered an address on "Old Lights and New in Economic Study." He referred to the Bristol meetings held in 1836 and 1875, at the last of which Jevons called attention to the diminishing of the coal supply in England, concerning which he said: "The lessened growth of population makes that reduction less marked, but it gives us at least a slightly better prospect of moderating our own inroads on our coal and iron, while the United States, our principal rivals, will soon need all the warnings that our national candor has so freely bestowed on ourselves." He found that some earnest students, "especially among our more cautious and prudent philanthropists, lament that they can not feel at home with the older economists, while, nevertheless, they think they owe more to the older than to the new." This he explained as due to the fact that "we live in a world that has been much altered since they left it. This is a phenomenon we can observe in our own half of the century," and also for the reason that "the imperfection of all human records can not fail to make the judgment of the past somewhat more fallible than of the present. Presumably a man puts his best thoughts into his books; but he does not always tell us there how he arrived at them and unless he is a living author he can not be cross-examined." He reviewed the work

of certain of the more recent authorities, notably that of Pantaleoni and Loria. Concerning the latter he said: "It has excited interest chiefly in academic circles, but need not be disparaged on that account. His theory is that all progress is economic, and all economic change is due to the land and the growth of population thereon. Though he contrives to differ from Malthus, they have much in common; and we can not discuss the theory of our contemporary without remembering that it is exactly one hundred years since Malthus wrote his essay." Of the future he said: "It is surely not irrational to look for a larger diffusion of independence, in the sense of really mutual dependence, with a wider distribution of wealth. When dependence is mutual its sting is gone. In the future the really dependent men will probably be the incapable men, or else the men that have high capacities that are not at the moment wanted, while they have no secondary or second-rate powers on which to fall back. These two classes will give the future two problems to solve in place of some that now trouble us, but are ready to vanish away. The solution may be the public support of both classes of dependents—of the first because they are too bad, and of the second because they are too good, to work on exactly the same footing as their neighbors." He concluded with: "To preserve our judicial attitude we must have perfect freedom of criticism. We must not allow our 'institutions,' whether in art, science, or religion, to fall into the hands of one class of society, lowest or highest. We must not study our subject with a constant fear of what this rich man or even that poor man will say to what we find there. If deference to the opinions of the rich is subserviency, the more generous deference may easily slide into a love of popularity, and it is hard to say which of the two temptations is the more likely to bias the views of an economist at the present moment. In science honesty is not the best policy merely—it is the only policy; without honesty there is no science."

The following-named papers were read and discussed before the section: "A Defense of Poor-Law Schools," by W. Chance; "Poor-Law Administration," by Douglas Dent; "Economic Aspects of the Imperial Idea," by Miss Ethel Faraday; "Industrial Conciliation," by L. L. Price; "Banking in Canada," by B. E. Walker; "The Question of the Ratio," by F. J. Faraday; "Municipalities as Traders," by George Pearson; "Ought Municipal Enterprises to yield a Profit in Aid of Rates," by Edwin Carman; "Rectification of Municipal Frontiers," by W. M. Ackworth; "The Economic and Social Effects of Electric Traction," by Silvanus P. Thompson; "The Effect of Sugar Bounties," by George E. Davies; "Shipping Rings and the Manchester Cotton Trade," by John R. Galloway; "Comparison of the Changes in Wages in France, the United States, and the United Kingdom from 1840 to 1891," by A. L. Bowley; "Saving and Spending: A Criticism of Recent Theories," by A. W. Flux; "Partnership of Capital and Labor as a Solution of the Conflict between them," by Henry Vivian; "Details of Expenditure for One Year of Six Middle-Class Working Women," by Miss C. E. Collett; and "On the Wakefield Hand System," by W. P. Reeves.

G. Mechanical Science.—The presiding officer of this section was Sir John Wolfe Barry, a past president of the Institute of Civil Engineers. In beginning he spoke of the commercial importance of Bristol and said: "So far as customs revenue is concerned Bristol now stands third, and in regard to the gross value of her sea-borne trade she is thirteenth among ports of the United Kingdom." Then, pointing out how engineering skill had developed harbors from seaports lacking suitable facilities, he said: "The approach to Bristol from the

sea—that is to say, from King Road in the Bristol Channel—is certainly unpromising for large ships, and indeed, when contemplated at low water, appears not a little forbidding. Something has been done, and more is now in progress, toward straightening, deepening, buoying, and lighting the tortuous course of the Avon below Bristol. More, no doubt, would have been undertaken in former years if the great rise of tide in the river had not provided at spring tides a depth and width for navigation which were sufficient for practical purposes until the size of modern ships imperatively demanded increased facilities of approach. I think it is a remarkable thing that vessels of 3,000 tons burden, 320 feet in length, and drawing 26 feet of water succeed in reaching Bristol, and that the trade in the heart of the city continues to increase." Concerning the growth and the requirements of England's merchant navy he had much to say. "The British people are the chief carriers of the world, and are indeed those 'that go down to the sea in ships, and occupy their business in great waters.' Our overseas import registered tonnage is 34,000,000, and our export registered tonnage is 38,000,000. Our coastwise traffic amounts to 63,000,000 tons a year, making together a tonnage of 135,000,000 tons. If we add to these figures the tonnage of vessels in ballast and the number of calls of those vessels in the coasting trade which touch at several ports in the course of one voyage, we must add a further 55,000,000 of tonnage, making 190,000,000 of tonnage using our ports yearly; and if we divide these figures by, say, three hundred days, we have the result 633,000 tons a day entering and leaving our ports. Our merchant fleet is eleven and a half times that of France, seven times that of Germany, eighteen times that of Russia (in Europe), two and three quarter times that of the United States (inclusive of the craft on the Great Lakes), six and three quarter times that of Norway, fourteen times that of Italy, and fourteen times that of Spain. Out of our total tonnage of 10,500,000, 6,750,000 are steam vessels. In 1897, out of a total shipping trade (cargoes and ballast) dealt with in ships of all nations at the ports of the United Kingdom, amounting to 90,000,000 tons, 81,000,000 tons, or 90 per cent., were conveyed by steam vessels. Of the tonnage of vessels built in the United Kingdom in 1897, 86 per cent. were steamers." His concluding considerations were in connection with the development of early railways and steamships. He said in this connection: "Bristol was the birth-place of the Great Western Railway. I. K. Brunel, its engineer, had previously, by public competition, been selected to span the gorge at Clifton by a suspension bridge of the then almost unrivaled span of 702 feet. Again, under the influence of Brunel, Bristol became the home of the pioneers of transatlantic steamships, and the story of the initiation of the enterprise is thus told in the memoirs of his life. In 1835, at a small convivial meeting of some of the promoters of the Great Western Railway, some one said: 'Our railway to Bristol will be one of the longest in England,' and Brunel exclaimed, 'Why not make it the longest line of communication in the world by connecting it with New York by a line of steamers?' Out of this grew the 'Great Western' steamship, and the history of the enterprise and of its success is too well known, at least here, to require any allusion to the steps by which it was brought about. Suffice it to say that, in spite of much discouragement, the 'Great Western'—of the then unexampled size of 2,300 gross tons, and with engines of unparalleled power—was launched at Bristol in 1837, and ran successful and regular voyages till 1857, when she was broken up."

The following-named papers were read and discussed before the section: "The New Works

recently constructed at Barry Dock," by R. C. H. Davison; "On the Conditions Necessary for the Successful Treatment of Sewage Bacteria," by W. J. Dibdin and George Thudicum; "An Old Newcomen Engine at Long Ashton, near Bristol," by W. H. Pearson; "Factitious Airs," by Sir Frederick Bramwell; "Some Mechanical and Economical Features of the Coal Question," by T. Foster Brown; "Hydraulic System of jointing Tubes on Tubular Bodies," by C. Johnson; "Description of an Instrument for measuring Small Torsional Strains," by E. G. Coker; "Electric Power in Workshops," by Alexander Siemens; "The Application of the Electric Power to Small Industrial Purposes and its Effect on Trade and on the Community Generally," by A. H. Gubbings; "Electric Power and its Application on the Three-Phase System to the Bristol Wagon and Carriage Works," by W. Geibel; "Notes on the Electric-Lighting Systems at Bristol," by H. Faraday Proctor; "A New System of propelling Electric Trams by Surface Contacts," by Silvanus Thompson and Miles Walker; "Schemes for the Improvement of the Water Way between the Bristol Channel and the Birmingham District," by Edward D. Marten; "On the Welsh Methods of shipping Coal," by J. Ryan; "A New Instrument for drawing Envelopes and its Application to the Teeth of Wheels, and for Other Purposes," by H. S. Hele Shaw; "Hydraulic-Power Transmission by Compressed Air," by William Walker; "Combined Electric Lighting and Power Plant for Docks and Harbors," by J. G. Aldridge and "Electric Canal Haulage," by Alfred H. Allen.

H. *Anthropology*.—The presiding officer of this section was Mr. E. W. Brabrook, a fellow of the Society of Antiquarians. In the beginning of his address he said: "Anthropology is in fact a group of sciences. There is what in France is called pure anthropology or anthropology proper, but which we prefer to call physical anthropology—the science of the physical characters of man, including anthropometry and craniology, and mainly based upon anatomy and physiology. There is a comparative anthropology, which deals with the zoological position of mankind. There is prehistoric archaeology, which covers a wide range of inquiry into man's early works, and has to seek the aid of the geologist and the metallurgist. There is psychology, which comprehends the whole operations of his mental faculties. There is linguistics, which traces the history of human language. There is folklore, which investigates man's traditions, customs, and beliefs. There are ethnography, which describes the races of mankind, and ethnology, which differentiates between them, both closely connected with geographical science. There is sociology, which applies the learning accumulated in all the other branches of anthropology to man's relation to his fellows, and requires the co-operation of the statistician and the economist. Great as is the diversity of the anthropological sciences, their unity is still more remarkable. The student of man must study the whole man. No true knowledge of any human group, any more than of a human individual, is obtained by observation of physical characters alone. Modes of thought, language, arts, and history must also be investigated. This simultaneous investigation involves in each case the same logical methods and processes. It will in general be attended with the same results. If it be true that the order of the universe is expressed in continuity and not in cataclysm, we shall find the same slow but sure progress evident in each branch of the inquiry. We shall find that nothing is lost, that no race is absolutely destroyed, that everything that has been still exists in a modified form, and contrib-

utes some of its elements to that which is." The greater portion of his address was devoted to some recent contributions to anthropology. With reference to the discovery in Java of what purports to be a missing link in the chain of animal existence he regards it as "a valuable document in the early evolution of mankind," and "I believe that it is acknowledged by all that the femur belonged to an individual who stood upright, and I presume that the capacity of the skull being greater than that of any known anthropoid is consistent with the same inference." Concerning palaeolithic man he quoted Hughes, who said that he had "never yet seen any evidence which would justify the inference that any implements older than palaeolithic have yet been found." The early works of art fabricated by man were discussed and some interesting discoveries mentioned. Africa was referred to as a place where many remains would be likely to be found that would add to the chain of continuity in the ascent of man's development in industrial arts. The value of folklore in preserving information that had its origin in the remote past was insisted on and illustrations cited to prove this fact. The final portion of his address was a plea in favor of the work done by the Ethnographical Survey Committee, and also one for urging upon the "Government the necessity of establishing a Bureau of Ethnology for Greater Britain." In connection with the last-named he mentioned how those "who visited the United States last year had the opportunity of observing the excellent work which is done by the Bureau of Ethnology at Washington, and those who stayed at home are probably familiar with the valuable publications of that department."

The following-named papers were read and discussed before the section: "Human Life in High Altitudes," by O. W. Howarth; "The Human Ear as a Means of Identification," by Miss M. A. Ellis; "Tabu in Japan in Ancient Mediæval and Modern Times," by K. Minakata; "Stone Implements from South Africa," by G. Leith; "Roman Symbolic Hands on Disks, Tablets, and Monuments," by Frederick T. Elworthy; "The Boats of Siam" and "The Lao Organ of the Mekong Valley," by H. Warrington Smyth; "The Mediæval Population of Bristol," by Dr. Beddoe; "The Origin of Stone Worship," by H. A. Miers; "Prehistoric Antiquities in the Neighborhood of Bristol," by Lloyd Morgan; "The Stone Caves of Stanton Drew," by Alfred L. Lewis; "The Survival of Palæolithic Conditions in Australia," by Edward B. Tyler; "An Exile of Twenty-eight Years among the Cannibal Blacks of Unexplored Australia," by Louis de Rougemont; "The Tarahumare People of Mexico," by Dr. Krauss; "Myths and Customs of the Musquakie," by Miss Mary A. Owen; "A Bronze Image of Buddha found in an Irish Bog," by Miss A. G. Weld; "On the Hill Tribes of the Northern and Central Indian Hills: Their Ethnology, Customs, and Sociology," by W. Crooke; "On the Tribes inhabiting the Vicinity of the Mouth of the Wanigela (Kemp Witch) River, New Guinea," by R. E. Guise; "The Montzu of Western Szechuan," by Mrs. Isabella Bishop; "West African Conceptions of Property," by Mary H. Kingsley; "The Native Secret Societies of the West Coast of Africa," by H. P. Fitzgerald Marriott; "The Natives of the Niger Delta," by Charles De Cardi; "Ancient Works of Art from Benin City," by Charles H. Read; "Egypt under the First Three Dynasties, in the Light of Recent Discoveries," by W. M. Flinders Petrie; "The Folklore of the Outer Hebrides," by A. Goodrich Freer.

Also a "Report of the Committee on Mental and Physical Deviations from the Normal among Children in Public Elementary and Other Schools";

a "Report on the Northwestern Tribes of Canada," being (a) a "Report of the Investigations into the Physical Characteristics of the Tribes of British Columbia," by Franz Boas and Livingston Farrand, and (b) a "Summary of the Work of the Committee in British Columbia," by Franz Boas; a "Report on the Ethnological Survey of Canada" with appendices of (a) "On an Investigation into Haida Stories and Beliefs," by C. Hill Tout, and (b) "On an Inquiry into the Customs and Habits of the Earliest Settlers of Canada," by Benjamin Sulte; and a "Report of the Torres Straits Anthropological Expedition," were presented before the section.

K. Botany.—This section was presided over by Prof. Frederick O. Bower, who is Regius Professor of Botany in the University of Glasgow. The general subject of his address was "The Morphology of Plants." He said: "This is a department of science pure and simple. The results which it brings have not, and can not be expected to have, any money value in the markets of the world. The present time is one of unusual bustle and change in morphology, consequent upon the discovery of new facts and the introduction of new methods. The development of the study may be divided into three periods, we ourselves standing upon the threshold of the third. The earliest phase was that of description and delineation of what might be observed of the mature form of plants; this includes the work of the herbalists and of the earlier systematists, who thus furnished the basis for classification. The tendency to comparison thus already perceptible, asserted itself strongly in the next phase of our study, to which it gave its character. And now the need arose for observing development; this was initiated by Schleiden, and carried to a triumphant climax by Hofmeister. Morphology has lately passed to a third stage—that of experiment—with a view to ascertaining the effect of external agencies in determining form, and the limits of variability under varied circumstances. Development of itself shows only how a part originates; it does not demonstrate what it is, nor what it may become, under special conditions. The ideal aimed at in the study of the morphology of plants is to trace their real relationships and mode of origin, on the basis of the widest observation—in short, to reconstruct the evolutionary tree. In order to make comparison possible, or at least manageable, a terminology is necessary, and this not only of the plants themselves, but also of their parts. We may for the moment leave on one side that summing up of morphological opinion represented by the systematic arrangement of plants in a taxonomic system. I propose to-day to discuss not the classification of plants, but the classification of the parts of plants, their grouping according to their homology." This part of his address was quite lengthy, and necessarily highly technical. "But," he said, "the questions above discussed are mere matters of detail, compared with that great enigma of the alternation of generations in green plants, or of alternation at large. This is after all a question of degree of homology, not now of the parts only, but of the whole plant or 'generation.' How this greatest of all adaptations was really initiated we can not expect to bring to the point of demonstration; at best we can only venture opinions of probability." In this connection the following three topics were taken up as most material to the discussion: (1) The bearing of the algae and certain fungi on the question; (2) the comparison from the bryophyta; and (3) the argument from abnormalities. In concluding, he said: "I have attempted to touch upon some of those questions in the morphology of plants which specially interest us at present, and I dare say in doing so have revealed to you some of the special weak-

nesses of this branch of the science. The want of finality in this unraveling of history without documents, the ample latitude for difference of opinion, according to the relative weight attached by one or another to the same facts—these are difficulties inherent in the very nature of our study, while to many minds they increase rather than diminish its attractions. Nevertheless, the progress of morphology in late decades has plainly been toward a truer appreciation of how divers forms have originated, and so toward a better recognition of affinities."

The following-named papers were then read and discussed: "The Form of the Protoplasmic Body in Certain Floridæ," by Reginald W. Phillips; "On Reproduction in *Dictyola dichotoma*," by K. Lloyd Williams; "The Origin of Railway Bank Vegetation," by J. T. Dunn; "A Method for obtaining Material for illustrating Smut in Barley," by W. S. P. Ellis; "A New Medullisa from the Lower Coal Measures of Lancashire," "A Fine Specimen of the Halonial Branch of a Lepidodendron allied to *L. fuliginosum*," "On an English Botryopteris," and "On the Structure of Zygopteris," by D. H. Scott; "Penicillium as a Wood-Destroying Fungus," by Marshall Ward; "The Alcohol-Producing Enzyme in Yeast," by J. Reynolds Green; "The Breathing Mechanism of Plants, experimentally considered," by F. F. Blackman; "The External Characters, Internal Structure, and Geological History of a Rare Fern, the Genus *Matonia*," by A. C. Seward; "The Prothallus of *Lycopodium claratum* L.," by W. H. Lang; "On the Anatomy of the Stem of Species of *Lycopodium*," by C. E. Jones; "A Potato Disease not due to *Phytophthora*," by Marshall Ward; "The Peltation of Leaves," by C. de Candolle; "Changes in the Sex of Willows," by I. H. Burkhill; "Changes in the Gland Cells of *Drosera* produced by Various Food Materials," by Miss Lily H. Hule; "A Theoretical Calculation of an Osmotic Optimum," "The Unit to be adopted for Osmotic Measurement," and "The Structure of the Yeast Cell," by Leo Errera; "The Origin and Use of the Knight-Darwin Law," by Francis Darwin; "The Structure of the Yeast Plant," by Harold Wager; "Observations on the Cytology of *Achlya Americana* (var. nov.)," by G. Brebner.

Attendance and Grants.—The Bristol meeting may be regarded as highly successful, and this in spite of the somewhat oppressive heat and unfortunate destruction by fire, at the last moment, of Colston Hall, which had been selected for the larger gatherings. The number of members in attendance was 2,446. There was distributed £1,485 among the sections in grants for research, which was apportioned as follows: Mathematics, £470; chemistry, £70; geology, £155; zoölogy, £350; geography, £35; economic science and statistics, £5; anthropology, £180; physiology, £150; botany, £45; and corresponding societies, £25.

Next Meeting.—The association will meet in 1899 in Dover, beginning on Sept. 13. This meeting was selected owing to the meeting of the French Association for the Advancement of Science on the opposite side of the Channel, and arrangements have been considered for certain meetings to be held in common. Invitations were received from Bradford and from Cork for the meeting to be held in 1900, and it was decided to accept that of Bradford. Dr. Michael Foster, the eminent physiologist, who has filled the chair in Physiology in the University of Cambridge since 1893, and whose address at Toronto last year was so well received, was made president-elect for the meeting in 1899.

Australasian.—The seventh meeting of the Australasian Association for the Advancement of Science was held in Sydney, New South Wales, beginning on Jan. 6 and continuing until Jan. 15.

The officers of the meeting were as follow: President, Archibald Liversidge, Sydney, New South



ARCHIBALD LIVERSIDGE.

Wales. Presidents of sections: A. Astronomy, Mathematics, and Physics, Pietro Baracchi, Melbourne, Victoria; B. Chemistry, W. M. Hamlet, Sydney, New South Wales; C. Geology and Mineralogy, F. W. Hutton, Christchurch, New Zealand; D. Biology, Charles J. Martin, Melbourne, Victoria; E. Geography, Sir James Hector, Christchurch, New Zealand; F. Ethnology and Anthropology, A. W. Howitt, Melbourne, Victoria; G. Economic Science and Agriculture, R. M. Johnson, Hobart, Tasmania; H. Engineering and Architecture, A. B. Moncrieff, Adelaide, South Australia; I. Sanitary Science and Hygiene, Allan Campbell, Adelaide, South Australia; and J. Mental Science and Education, John Shirley, South Brisbane, Queensland. Permanent secretary, Archibald Liversidge, Sydney, New South Wales. General treasurer, H. C. Russell, Sydney, New South Wales. Assistant general secretary, Alexander Morton, Hobart, Tasmania.

Opening Session.—The formal opening of the Sydney meeting began on Jan. 6 with meetings of the sectional committees to arrange for the programmes of the session. Immediately afterward the General Council convened, with H. C. Russell, the senior past-president, in the chair. The principal business was the confirmation of the action of the local committee and the election of new members. Other business included the naming of a committee to advise action to perpetuate the memory of Baron von Mueller, the botanist and former president. Later in the week the committee reported that a resolution was passed to the effect that the association place on record its sense of the deep loss sustained by it owing to the death of the late Baron von Mueller, and its high appreciation both of his personal character and of the distinguished services rendered by him to science. President Liversidge and J. H. Maiden were appointed to officially represent the association upon the Baron von Mueller National Fund Committee. At the first meeting a committee was appointed to recommend action in regard to the International Catalogue of Scientific Literature, which is to be inaugurated in England with the beginning of the new century. Subsequently this committee recommended that some

recognized society in each colony should collect all necessary matter and forward it to the central bureau, London.

The place of meeting was the University of Sydney, and the grand hall of that institution was the gathering place for the general sessions.

President's Address.—Vice-President Ralph Tait, of South Australia, briefly introduced President Liversidge as one who "had two great claims upon them. First of all there was his claim as a scientist, and they must appeal to the records of European literature to know how much he was honored among the scientific men of the world. Last year he was elected one of the vice-presidents of the British Association for the Advancement of Science, whose efforts they sought to copy here. But apart from his scientific abilities, which had spread far beyond the narrow scientific center which they called Australia, he had also a great claim upon them as the earnest administrator who had governed this association to the grand position which it now held in the annals of the scientific world." President Liversidge, in opening, referred to the deaths of two past presidents who had died since the last meeting, namely, Sir Robert G. C. Hamilton and Baron von Mueller, after which he discussed the objects of the association, pointing out how the British Association was instituted in 1831 at a meeting held at the suggestion of Sir David Brewster, at York, in the hall of the Philosophical Society of Yorkshire, with the title of "The British Association for the Advancement of Science," and its objects were to give a stronger impulse and a more systematic direction to scientific inquiry; to promote the intercourse of those who cultivate science in different parts of the British Empire with one another and with foreign philosophers; and to obtain a greater degree of national attention to objects of science, and a removal of any disadvantages of a public nature which impeded its progress. Mention was also made of the International Catalogue of Scientific Literature soon to be taken up in London under the auspices of the Royal Society and with the co-operation of the Smithsonian Institution in the United States. The usefulness of the Imperial Institute in London was discussed, and he pointed out that it was "not only of a commercial value, but of a scientific value." Chemistry is the special field of President Liversidge, and in the final portion of his address he discussed the chemistry of the ancients, referring to the recent magnificent publications of Berthelot on alchemy, and he mentioned two recent notorious claims in the United States of persons who reported their ability to transmute the baser metals into gold. The teaching of chemistry was discussed and the conclusions of the special committee of the London Technical Education Board on this subject were given. A description of recent progress in chemistry, including the history of the discovery of the elements argon, helium, and asterium, together with the work done in the liquefaction of gases, formed the concluding portion of his address.

Proceedings of the Sections.—A. *Astronomy, Mathematics, and Physics.*—This section was presided over by Mr. Pietro Baracchi, who is the Government astronomer in Melbourne. His address was on the subject of "Astronomy and Terrestrial Physics."

He mentioned the four great observatories of Australia, namely, those of Sydney, Melbourne, Adelaide, and Perth, as the best places for carrying on observations of the highest precision. The work of the observatories, he thought, was much underrated and little understood by the general public, and he would confine himself to pointing out what was likely to be accomplished in the future. At

present the condition of the observatories hardly permitted the astronomers to engage in adventurous explorations of the heavens. The time that the astronomers could take from their many public functions for purposes of exploration was relatively very small, and consequently the work of discovery progressed but slowly. Sidereal astronomy was well advanced in the Southern Hemisphere. In all other respects our knowledge of the southern heavens was deficient. Celestial photography and astronomy of position and fundamental investigations for the improvement of both these branches should be the objects of their endeavors in the future. He then described the aid which photography had brought to astronomy, and predicted great results from its use. By the year 1900 they hoped to have formed a photographic catalogue of some 12,000 or 13,000 stars fundamentally observed with transit circles. He did not think that the Adelaide and Perth observatories could have a better opportunity of rendering valuable service, the one by continuing and the other by joining in the observation of zero stars for their astrophotographic plates and to carry on every investigation which might tend to improve the observations and free the results from error. There was still a wide field for amateur astronomers to help singly to widen the knowledge of the science, but co-operation of those working toward the same end must be beneficial to the majority of the persons concerned. In regard to terrestrial magnetism, he said scientists were not yet able to tell whether the earth acted as a great magnet or a great electro-magnet. He mentioned the varied theories on the subject, and urged that more careful and systematic observations should be made of the earth's currents with a view of obtaining a more correct and complete knowledge of the distribution of terrestrial magnetism and of its variations. He thought that the establishment of an observatory in the interest of this science was a duty New Zealand owed to the scientific world. He pointed out many other avenues in which research was necessary, and in conclusion expressed the hope that great success would result from such labors.

The following papers were read and discussed before the section: "Measurement of Cloud Heights and Velocity," by Pietro Baracchi; "Four Theorems in Spherical Harmonics" and "Some Expressions for the Component of the Magnetic Force Perpendicular to the Axis in the Interior of Solenoids," by C. Coleridge Farr; "The Tides of South Australia," by R. W. Chapman and A. Inglis; "The Trigonometrical Survey of New South Wales, with Mention of Similar Surveys in the Other Colonies," by T. F. Furber; "The Description of a New Tide-Predicting Machine," by A. Inglis; "On the Contact Force between Different Varieties of Sulphur" and "On the Question of the Effect of Light on the Electrical Resistance of Sulphur," by Richard Threlfall and J. Bernard Allen; "On Magnetic Hysteresis Losses in Feebly Magnetic and in Diamagnetic Substances," by Richard Threlfall and Miss F. Martin; "Results from Various-Sized Rain Gauges," by H. C. Kiddle; "Notes on the Vertical Component of the Motion of the Earth's Atmosphere, and an Exhibit, viz., a Wind Vane showing Vertical Motions of the Air," by Gen. Shaw; "The Source of the Periodic Waves, sometimes called Earthquakes, which reached Sydney from Time to Time," by H. C. Russell; "A General Expression for 'Flow in Tubes,'" by G. H. Knibbs; and "Notes on Comparisons of Steel and Iron Lineal Standards for Geodetic Purposes," by D. M. Maitland.

Also the following report was presented before the section: "On our Knowledge of the Thermodynamics of the Voltaic Cell," and one from the Committee on Seismological Phenomena.

B. Chemistry.—The presiding officer of this section was Mr. William M. Hamlet, who fills the place of Government analyst to the colony of New South Wales. He chose as the subject of his address "The Molecular Mechanism of an Electrolyte."

As indicated by the title, this paper was exceedingly technical. In part Mr. Hamlet said that he offered the suggestions as to the mechanism of the electrolyte—that is, of a body in solution or state of fusion, capable of being instantaneously decomposed by a current of electricity, and he claimed that if the explanation he offered was adequate for the electrolyte, it must hold good for the constitution of the matter in the universe, so that the treatise on the electrolyte has a most important scientific bearing. The method of investigating the action of one body upon another, he observed, was brought to a high degree of accuracy by the immortal work of Sir Isaac Newton. He alluded to some observations of the late Prof. William K. Clifford, made over twenty years ago, this authority remarking, almost prophetically, "We can look forward to the time when the structure and motions in the inside of a molecule will be so well known that some future Kant or La Place will be able to make an hypothesis about the history and formation of matter."

The following papers were read and discussed before the section: "The Coloring Matter of Wines," by M. Bruno; "Notes on the Coloring Matter of the *Ericoccus Coriaceus* and the Wax of *Ceroplastes Rubens*," by E. H. Gurley; "The Russell Process in Australia," by Edgar Hall and Edward S. Simpson; "Metallurgical Methods in Use at Broken Hill, New South Wales," by G. H. Blakemore; "The Water of the Water Vine," "On the Estimation of Wheat Meal in Oatmeal," and "On Manganese Nodules found at Onybygambah," by W. M. Doherty; "On the Mineral Waters of Australasia," by George Gray; "On the Red Rain Dust," by Thomas Steel; "On Modern Methods of teaching Chemistry," by W. J. Clunies Ross; and "Notes on the Constitution of Gluten," by F. B. Guthrie.

C. Geology and Mineralogy.—Prof. F. W. Hutton, of Canterbury College, Christchurch, New Zealand, was the presiding officer of this section, and he delivered an address on "Early Life on the Earth."

Palaeontologists in search of fossils began with the younger fossils and worked downward. Their subsequent discoveries were traced through Cenozoic, Mesozoic, and Palaeozoic periods. Fossils were subsequently discovered at the base of the Cambrian and then in the pre-Cambrian rocks. Recently Dr. C. Barrois, in Brittany, had discovered what seemed to be a palaeontological base. He had found radiolarians and sponge spicules in a rock which appeared to be much older than any other fossiliferous rock known. They knew as a fact that the earth was a hot body traveling through space which was intensely cold. The earth must therefore be cooling. It must once have been molten, and the water of the ocean must once have been in a state of vapor. After traversing the various stages through which the earth passed—namely, the Laurentian period, the Huronian life, the Algonian life, and the Cambrian life—the lecturer gave some speculations regarding the pre-Ordovician life. Of the origin of life he said: It was highly probable that the first living organisms were evolved near the surface of a warm ocean. They might safely assume that the first protoplasm was not so complicated a substance as it had since become. Ordovician and Silurian life followed, and he said in closing: "We have thus arrived at the conclusion that the ocean was the mother of life; that on its sur-

face floated the first organisms, whose descendants, but little changed during all the millions of years that have since passed away, still float and multiply. Presently some of these animals found their way down to the bottom, where all the *débris* from the floating organisms collected, and here in still water they lived and increased for a long time. Slowly they invaded the rough waters of the coast line, and at last gained a footing on the land. It was plants which formed the army of invasion that conquered the land. This army was followed by a mob of camp followers and ragamuffins in the shape of cockroaches and scorpions, who fed and fattened on the plants, but who, notwithstanding their boasted superiority, were quite incapable of reclaiming a single acre of desert. The real victory belonged to the plants, who with undaunted courage led the congenial water to dare the vicissitudes of temperature and moisture on land, and thus made civilization possible."

The following-named papers were read and discussed before the section: "Notes on Geology and Mineral Deposits in Certain Parts of West Australia," by E. F. Pitman; "Further Evidence of Glacial Action in the Bacchus Marsh District," by C. C. Brittlebank, G. Sweet, and W. E. David; "The Glacier Beds of Toolleen, Coleraine, and Wanda Dale," by Evelyn G. Hogg; "The Early History of Tin," "The Pleistocene History of Northern Asia," and "The Bdelium of Scripture," by S. B. J. Skertchly; "Notes of a Geological Reconnaissance on the Mount Kosciusko Plateau" and "Artesian Water in New South Wales," by J. Milne Curran; "Some Notes on the Basaltic Dike and Prismatic Sandstone Quarry at Bondi," by Robert L. Jack; "Notes on the Physiography of the Parish of St. George, New South Wales," by E. J. Statham; "The Recent Coral-boring Expedition to Funafuti," by T. W. E. David; "The Geology of Mount Kosciusko," by A. E. Kitson and W. Thom; "Oligocene from Mount Anakies, Victoria," and "Rock Specimens from near Mount Kosciusko," by A. W. Howitt; "Note on the Occurrence of Fulgurites in the Sandhills at Kensington, Sydney, New South Wales," by G. H. Knibbs, J. W. Grimshaw, and J. Milne Curran; "Notes on Some New South Wales Rocks," by W. J. Clunies Ross; "Notes on the Australian Tenebrionidae," by W. S. Dun; "On Deposits of the Silver Spur," by H. G. Stokes; "An Examination of the Tasmanian Graptolite Record," by T. S. Hall; "On the Geology of the Cow Flat District, near Bathurst," by A. C. Andrews.

Also the following reports were presented before the section: Reports of research committees on "The Occurrence of Glacial Boulders at Yellow Cliff, Crown Point Station, Finke Valley, Central Australia" and "The Evidence of Glacial Action in the Port Victor and Inman Valley Districts, South Australia."

D. Biology.—This section was presided over by Prof. Charles J. Martin, of Melbourne University, who delivered the presidential address, taking for his subject "The History of the Relations between Morphology and Physiology during the Last Fifty Years."

In opening he made eulogistic references to the services rendered to biological science by the late Prof. Jeffery Parker, the recent president of the section. It had been hoped that Prof. Parker would be there to deliver the presidential address, but the duty had devolved at somewhat short notice upon himself. He described the growth of the science from morphology, which is now a separate science from physiology, the scope of research in both directions having within the last fifty years become greatly widened. Morphology deals with the structural conformation and anatomy of animals, physi-

ology with the functional workings of the animal system. During the last half century the discoveries in both these sister sciences have been of a most beneficial character to mankind, and the future was full of possibilities. He then described technically some of the more prominent developments that had occurred in recent years.

The following-named papers were read and discussed before the section: "Plants of the Rabbit-Infested Country, Bull's River, Southwest Queensland," by J. F. Bailey; "The Plants of the Islands of Torres Straits and the Neighborhood of Somerset Cape, York Peninsula," by F. M. Bailey; "Methods of Fertilization of Some Australian Plants," by A. G. Hamilton; "The Occurrence of Eucalyptus Pulverulenta in Victoria," by A. W. Howitt; "Notes on Some Eucalypti of the New England Tableland," by J. H. Marden; "Nests and Eggs of the Honey Eaters, or Meliphagius Birds of Australia," by A. G. Campbell; "Zoology in a Technical Museum," by C. Finckh; "The Growth of Vegetable Galls," by W. W. Froggatt; "Notes on the Histology of Podocarpus" and "The Distribution of Lizards in the Pacific," by A. H. S. Lucas; "Some Points of Interest in the Structure of Certain Coccids," by C. Fuller; "Enlarged Models of Australian Plants," by R. T. Baker; "Notes on the Flora of the Mallee Districts of Victoria," by St. Elroy D'Alton; "Notes on the Fertilization of Some North Australian Plants," by N. Holtze; "Classification of Eucalypts based primarily on the Characters of the Fruit," by J. G. Luchmann; "A Statistical Account of Australian Fungi," by D. M'Alpine; "Underground Fungi of Tasmania," by L. Rodway; "Notes on the Flora of Bathurst," by W. J. Clunies Ross; "On the Copper Plant (*Polycarpaea spirostylis*)" and "Notes on the Sacred History of Gingko," by S. B. J. Skertchly; "Questions concerning the Temperature of Plants," by W. Soutter; "Suggestions for a New Classification of the Eucalypts" and "Host Plants of Some Australian Loranths," by Ralph Tate; "The Algae of Victoria," by H. T. Tisdall; "Some Notes on the Marsupial Brain," by J. F. Flashman; "The Transplantation of the Recurrent Laryngeal Nerve," by T. F. McDonald; and "Some Observations on the Flowers of the Order Prolaceae," by J. Shirley.

E. Geography.—This section was presided over by Sir James Hector, a past president of the Association and chancellor of the New Zealand University, who also holds the place of director of the Geological Survey of New Zealand. The subject of his address was "Submarine Geography." Since their last meeting, he said, the results of the exploring expeditions equipped by the munificence of the late Sir Thomas Elder and Mr. Horne had been made public, and the wonderful expansion of our knowledge of central and western parts of the continent obtained through the intrepid journeys would greatly assist the material development of the vastly rich but hitherto neglected interior area of West Australia. Another feature of great promise to the future advance of geographical discovery in the more difficult parts of the Australian continent was the steady extension of the "artesian-well" system into the arid areas of the interior, where the absence of water had not only prevented the settlement of the country, but even its exploration, and had caused the loss of many brave and enthusiastic pioneers under circumstances of intense personal suffering. When the sources of underground-water circulation were fully comprehended and utilized, both exploration and occupation of large and almost unknown areas would become possible. After dealing with geographical researches conducted in different parts of the world, he said the crowning event that had absorbed the interest of geographers since

the last meeting was the successful achievements of Nansen. The scientific results of this wonderful venture had not yet been published, but two remarkable advances in geographical science were announced: (1) That the north polar ocean was not a shallow sea, with scattered islands, distributing icebergs, but a profound ocean basin; (2) that there were definite movements of the great ice cakes, and they crossed, and did not merely circulate round the pole. After discussing at length the many phases of the subject of submarine geography, the speaker said the practical use of a more extended study of submarine geography was undoubted. By gaining a familiarity with the geography of the sea bottom, such as they had with the land surface, the laying of telegraph cables would be less liable to encounter failure.

Subsequently the following-named papers were read and discussed before the section: "Sixty Years' Progress of Geographical Discovery, 1837-'97" and "Over Land and Sea: Dr. Andree's Aerial Voyage to the North Pole," by A. E. Macdonald; "Suggestions for the Continuation of Detailed Explorations of Central Australia," by W. H. Tietkens; "The Discovery of New Guinea by Antonio D'Abreu," by J. R. MacClymont; "Australian Oceanography and the Determination of Heights by Other than Spirit-Level Methods," by T. W. Fowler; and "Picturesque Tasmania," by Alexander Morton.

F. Ethnology and Anthropology.—A. W. Howitt, who for many years had been Secretary for Mines in the colony of Victoria, presided over this section, and delivered an address "On the Origin of the Aborigines of Tasmania and Australia." He said that the level of culture in the Tasmanian aborigines, apart from a consideration of their customs and beliefs, was best indicated by their weapons of war and implements, the former consisting of a thin pole, hardened and pointed in the fire, and a club, which was used also as a missile; while, as to their implements, flints chipped on one side were used for cutting and scraping, and were held in the hand without a handle for chopping. The aborigines of Australia stood on a somewhat higher level, being better armed and having ground and polished stone axes fixed into handles. Moreover, while the Tasmanian savages had only a rude raft made of bark tied together, the Australian aborigines had the bark canoe which could cross wider stretches of water than the catamarans of the Tasmanians. The Australian might, he thought, be said to represent hunting tribes of the neolithic age. He went on to say that it had been generally assumed that the ancestors of both the Tasmanians and Australians must have reached their habitats by means of canoes or ships, but there was but little direct evidence that such was the case. On the contrary, however, such a theory, which implied that the savages here were the degenerated descendants of people acquainted with navigation, was negated by all they knew of their social and tribal customs. After drawing a number of conclusions from ascertained facts, he said that if his inferences were sound it would follow that the navigation of the primitive Tasmanians must be placed far back in prehistoric, if not in pleistocene, time at least. The weight of evidence went to show that the Tasmanian aborigines were offshoots of that stock to which the name of Oceanic Negritus was applied. To speak of the Tasmanian as being "Melanesian" appeared therefore to be hardly correct. The primitive Australians, in occupying the continent, must have amalgamated with the autochthonous inhabitants of the same stock as the Tasmanians. The conclusion that the primitive Australians migrated by land necessarily placed their separation from the present stock far back in time, although subsequent to the migration

of the primitive Tasmanians, while yet before that of the early Melanesians. The early Australian stock might be assumed to have been a low form of Caucasian Melanochroi. This solution, moreover, would connect the primitive Australian and the Dravidians of southern India, not, as some authors had postulated, by the arrival of shiploads of Dravidians in Australia, but by the common descent of both from a parent stock at a time when the state of culture was not higher than that of the socially most backward standing tribes of Australia at the present time.

The following-named papers were then read and discussed before the section: "Pictorial Art of the Australian Aborigines" and "Australian Initiation Ceremonies," by R. H. Mathews; "Some Customs and Superstitions of the Maoris," by Elsdon Best; "Mythology of the Efatese" and "The Oceanic Family of Languages," by Rev. Dr. Macdonald; "The Origin of the Aborigines of Tasmania and Australia," by A. W. Howitt; "The Dialectical Changes of the Indo-Polynesian Languages," by Samuel Ella; "Le Dieu, La Nature, et L'Ame," a translation of which was read by John Fraser; "The Life History of a Savage" and "Notes from New Guinea and New Britain," by George Brown; "Black, Red, and White as Symbols" and "On Some Indian Words of Relationship used by the Australian Tribes," by John Fraser; "A Female Hermit of the South Pacific, with her Song" and "Concerning Unga as a Term for Slave in Rarotonga," by W. Wyatt Gill; "Proposal for a Bureau of Ethnology in Australasia," by A. Hamilton; "Ancient Geography of the Maoris," "The Geographical Knowledge of the Polynesians" and "How New Zealand became Inhabited," by S. Percy Smith; "Notes on the Disappearance of Native Races in General, and of Fijians in Particular," by H. H. Thiele; "Tahitian and Hawaiian Tattooing," by Miss Teira Henry; "Vocabularies of the Geelong and Colac Tribes in 1840," by J. J. Cary; "Notes bearing on Natives of the Upper Murchison District, Western Australia," by Alexander Morton; "Wollambi Rock Carvings," by J. Enright; "Australian Cave Paintings and Rock Carvings" and "Old Samoan Amusements, Trades, and Employments," by J. B. Stair; "The Murchison Blacks of Western Australia," by Alexander Morton; and "Syllabic Characters on a Cave Painting on the Glenelg River, N. W. Australia," by John Campbell.

G. Economic Science and Agriculture.—The presiding officer of this section was R. M. Johnson, the Statistician and Registrar General for Tasmania, and the author of a "Systematic Account of the Geology of Tasmania." He chose as the subject of his address "Comparative Share of Consumable Wealth actually appropriated or absorbed by the Various Agencies engaged in its Production." He said that the term "wealth" was the principal source of confusion in all social and economic questions. The manner in which the term should be used or interpreted depended entirely upon the nature of the question with which the generic word wealth was brought into relationship or conjunction. Owing to the backward state of economic science as compared with the various branches of natural science, the phrase "the wealth of a country" covered widely divergent conceptions. The statistician's wealth of a country might mean either private wealth or public wealth, or both. In any case, it rarely embraced more than one third of the real monetary value of the total wealth in exchange of the economist, and certainly seldom more than 2 to 3 per cent. of the corresponding monetary or exchange value of the total capital of the true wealth in exchange of the economist. It altogether

excluded the principal primary source of all wealth in exchange—namely, the existing productive personal services of man. The speaker then read statistics showing the corresponding wealths of the United Kingdom, New South Wales, and Tasmania, regarded first as the product of anterior labor agencies (fixed capital), and second, as the product of anterior and current labor agencies. Wealth in consumption was next dealt with, and the speaker proceeded to explain the laws ruling the distribution and consumption of wealth. He displayed in tabulated form the relative value of physical energy exerted by the various agencies engaged in the production of consumable wealth, and from this it appeared that, ignoring the claims of intellect and ability, and reserving the mere physical forces devoted to the production of consumable and other forms of wealth, the contribution of the wage earners amounted only to 30.52 per cent. of the whole of the necessary energy required to produce that volume of consumable wealth which would yield each class and individual that standard of living and comfort to which they had been accustomed. Another table showed the share of national income appropriated or absorbed by the various agencies employed in the production of consumable wealth. From this he argued that, so far from the capitalist class being enriched at the expense of the wage earner, the very opposite is the truth; for, instead of a reward being allotted in proportion to his share of energy contributed, it has been increased fully 100 per cent., energy expended being only 30.52 per cent., while his share of rewards represents 69.11 per cent.

The following-named papers were read and discussed before the section: "The Making and Improvement of Wheats for Australian Conditions: Details of the Work, its Aims, and Matters of Interest connected with it," by W. Farrer; "Applied Entomology in Western Australia," by C. Fuller; "Bacteriology in Relation to Australian Dairying," by M. A. O'Callaghan; "Notes on Rust in Wheat," by E. M. Shelton; "Graminæ of Western Australia," "Salsolacæ of Western Australia," and "The Supposed Poisonous Plants of Western Australia," by F. Turner; "Democracy and the Voice of History" and "The Advantage of a Federal Union," by W. Jethro Brown; "Propagation of Fruit Trees," by A. H. Benson; "The Practical Application of Economics," by Alfred De Lissa; "Federation and Responsible Government," by A. B. Piddington; "Wine Culture in New South Wales," by F. B. Kyngdon; "Milk Analysis in its Relation to the Butter and Cheese Industries," by H. W. Potts; "Farmers' Weights and Measures," by Henry Lord; "Farmers' Unions and Conservation of Forests" and "Forestry in New South Wales," by W. S. Campbell; "The Queensland Tick: How its Progress Southward might be prevented," by J. P. Dowling; "State Aid to Agriculture," by H. L. E. Ruthning; "Some Thoughts on Social Evolution," by J. C. Corlette; "The Federation of British Australasia," by J. T. Walker; "An Introduction to Political Economy," by Sir R. C. Baker; "Economic Feeding of Working Horses," by T. U. Walton; "Criminal Responsibility," by Sir Samuel W. Griffith; and "The Pine Trees of New South Wales," by R. T. Baker.

H. Engineering and Architecture.—This section was presided over by A. B. Moncrieff, who has control of the construction and maintenance of railways, and also the water conservation in the province of South Australia. His address was on "Notes on Some Recent Engineering Experiences." In opening, he discussed the change that had taken place in South Australia in the carrying out of large Government works by contractors, as compared with

the carrying out of similar work by the Government Department of Public Works, as was formerly the case. He referred to the construction of railways, waterworks, and other large national undertakings. He contended that the present method was beneficial to the workmen, economical, and satisfactory as regarded the character of the work. He was not, he explained, treating the question from a political or social standpoint, but merely with a view to the engineering points involved. He gave a statement of the cost of some departmental manufactures, especially water pipes, and said that the Public Works Department was now making all the cast-iron pipes and all the brass work required in South Australia by the Government. The result was, he contended, satisfactory to the employees, and satisfactory, in the matter of price, to the public. Mr. Moncrieff then dealt with the question of the carrying out of some of the deep-well bores for artesian water which had been undertaken by the Government department. Referring to the relation of this water supply to that from the great central Australian basin, he said there was no proof of any connection between the central Australian artesian system and that which extended over the head of the Great Australian Bight. He went on to give a description of the electric lighting of the beacons for navigation purposes of the Port Adelaide river. In conclusion, he strongly advised the establishment of some system for recording the rates and prices of work throughout Australasia, in order that each Government might be in a position fairly and justly to compare the prices of similar work in different places.

The following-named papers were then read and discussed before the section: "The Commercial Conditions governing Railway Extension in Australia," by C. O. Burge; "Notes on the Principles to be adopted in constructing Unballasted Lines of Railways," by H. Deane; "The Rapid Erection of an Iron Viaduct for Railway Purposes in New South Wales," by Walter Shellshear; "On Narrow-Gauge Tramways," by F. Back; "Architecture and the Allied Arts in New South Wales," by J. B. Barlow; "A Review of Some of the Conditions of Building Construction and Requirements in Sydney, Past and Present," by G. Allan Mansfield; "Some Remarks on Details of Hospital Construction and Lay Management," by C. E. Owen Smyth; "The Ornamental Treatment of Iron and Steel in Building Work," by J. Nangle; "The Recent Fire in Melbourne," by John Sulman; "Coal Mining in New South Wales," by J. H. Ronaldson; and "The Grotesque in Modern Development of the Picturesque," by Howard Joseland.

I. Sanitary Science and Hygiene.—The presiding officer of this section was Allan Campbell, of Adelaide, South Australia, whose address treated of "Some Aspects of Public Health Legislation in Australia." He divided the subject into three parts, and dealt with the questions: 1. How far public hygiene claims attention from our legislators. 2. What Australia on general lines has accomplished in the direction of public hygiene and sanitation. 3. What remains to be done, and the lines on which immediate legislation should run. He declared that the history of hygienic progress during her Majesty's reign showed a record of achievement unparalleled in any previous reign. Public hygiene could have no existence without legislation, and it was therefore necessary to address legislators and plead for an advance throughout Australia. Referring to the compulsory element in health legislation, he pointed out that a strong element of compulsion ran through much of Australian legislation even for economic purposes, and where the object of legislation was to bring in conformity to natural

law, and not artificial law, the element of compulsion had a great deal more to recommend it. As a general conclusion it might be said that the people's representatives could not remain indifferent to the claims of modern hygienic science on behalf of the people, nor could they remain any longer unconscious of the power they possessed to pass intelligent and efficient laws against public enemies so subtle, so active, and so mighty. In dealing with the second part of his subject, the speaker referred to the larger works of a hygienic character that had been carried out in several of the colonies. He pointed out the influences at work throughout the colonies tending toward the creation of a better ideal of public hygiene. Among these he instanced the mingling of health topics in our various systems of public education, the existence of centers of instruction established by the St. John's Ambulance movement, the labors of scientific associations and popular health societies, the dissemination of useful information by the press, and the organization of several forms of charity, especially hospitals and training institutions for nurses. All these were indications of a preparedness to advance in numerous directions. In discussing the question of what lines should be taken by coming legislation, he said that the crucial point of a health bill lay in its definition of the powers and responsibilities of the central authority on the one hand, and those of the local authority on the other. He dwelt on the value of well-equipped bacteriological laboratories, and said that no hesitation should mark the steps of each Government in providing a laboratory for itself. He expressed the conviction that an immediate step in public-health legislation should be the adoption of the control and administration of infectious diseases by the state authority.

Subsequently the following-named papers were read and discussed before the section: "A New Method of preparing and preserving Anatomical and Pathological Tissues, with Special Reference to Color Preservation," by Sydney Jamieson; "A Brief Sketch of the History of Smallpox and Vaccination in New South Wales," by Frank Tidswell; "Tuberculosis and the Public Health," by G. Lane Mullins; "The Epidemiology of Lepa in Australia," by J. Ashburton Thompson; "The Scientific Basis of the Prevention and Treatment in Consumption," by W. Carnac Wilkinson; "Vaccination in Australia," by E. Rougier; and "Death Certification," by G. E. Rennie.

J. Mental Science and Education.—This section was presided over by John Shirley, District Inspector of Schools, Brisbane, Queensland, who chose as the subject of his vice-presidential address "The Influence of English History upon English Literature." He said: The history of England might be represented graphically by an irregular wavy line, whose crests would depict years of victory and expansion, and whose furrows would show periods of loss and civil conflict and of depression. If they inserted the dates on these historical summits, it would be found that periods of great national success were synchronous with times of great literary activity, and that when the heart of the nation was stirred to its depths by threatened peril, only to be successfully avoided by mighty effort and sacrifice, a few master minds of the age, unconsciously, and almost Divinely inspired, gave tongue in prose or verse to the joy or thankfulness or exultation felt by the mass of their fellow-countrymen, though inarticulate in all but the selected few. Occasionally the genius was born after the national uplifting had ceased; or, still worse, before the nation was in *excelesis*; but, like the Hebrew prophet of old, when once the message had been given, it was delivered, whether in season or out of season, and

whether the outcome were acclamation or persecution. Occasionally, in times of misery the groans of the oppressed were voiced in the lamentations of a Piers Plowman, but the agony, however sincerely expressed, was seldom accompanied by talents above mediocrity. Again, both in history and literature there were periods of dull contentment or of national high living when fervor and patriotism were obscured and the Philistine was abroad in the land. The peaceful and comparatively prosperous reign of Henry VIII was also the era of Protestant reformation, and with the interminable controversies on the subject of religion came a quickening of the national intelligence and an extension of the benefits of education. New aims, new desires, new aspirations, needed once more the inspired voice to give them utterance, and under the Tudor sovereigns came the dawn of a glorious age, which, reaching its apogee under the last of the race, had been called the Elizabethan period. Discontent came in with the Stuarts, and the volcanic upheavals of a civil war choked the stream of genius which had flowed so freely in the sixteenth century. After England had crushed the power of Louis XIV, this period of victory and exaltation was as favorable to the production of genius as the Elizabethan age, and the times of Queen Anne could boast of Swift, Pope, Addison, and Steele. Under the last of the Stuarts the newspaper began to assume its modern form. To this period might also be referred many of the stages in the development of the modern novel. The literature of the present day was a direct continuation of the Georgian era, and it was questionable whether the standard of merit was being maintained. If there had been a time during the present century when the minds of Englishmen were in accord, it was during the late period of storm and stress when Germany, a blood relation, and a supposed friend, took advantage of the difficulties to do them an unfriendly act, yet the situation evoked nothing better than Austin's pitiful poem—a possible sign that the inspiration which had been created by the long struggle with Napoleon had spent itself, and a literary decadence had set in.

The following-named papers were read and discussed before the section: "The Relation of Ethics to Political Economy," by Thomas Rosely; "Idealism in Ethics and Religion," by A. J. Griffith; "English Theories of Individual Freedom," by James Hill; "The Psychology of Attention," by N. J. Cocks; "The Place of Museums in University Education," by Miss L. Macdonald; "The Permanent Place of Literature in Education," by C. J. Prescott; "Socialism in Education," by P. F. Rowland; "The Function of Classical Study in Education," by F. V. Pratt; "Financial Aspects of Secondary Education," by P. Ansell Robin; "Is there a Science of Education?" by Mrs. W. L. Atkins; "A New Educational Experiment," by Miss M. Hodge; "Teaching *versus* Education," by Miss H. Newcomb; "The Rationale of Miraculous Cures in Modern Days," by S. T. Knaggs; "Evolution and Sociology," by T. F. Macdonald; "Technical Education in England, Germany, America, and New South Wales," by Prof. Selman; and "Friedrich Nietzsche and his Relation to Schopenhauer and Wagner," by C. J. Brennan.

Final Session.—The final session of the association was held on Jan. 14, when the reports of the various committees were received. Of these perhaps the most important was that of the recommendation committee recommending (1) that the New South Wales Government acquire the quarry of prismatic sandstone at Bondi with a view to its preservation as a remarkable geological occurrence; (2) the reappointment of the committee on the

systematic conduct of the photographic work of geological surveys; (3) the appointment of a seismological committee for the year 1900; (4) the appointment of a committee to secure magnetic surveys at the extreme southern portion of New Zealand; (5) that the committee be reappointed to continue the investigation of the mineral waters of Australia; (6) that the New South Wales Government be recommended to complete the borings at Funafuti, while the boring apparatus remains at the island and the bore remains open; (7) that a committee be appointed to draw up a list of works and papers relating to Australian flora; (8) that the Government of New Zealand equip Timaru with approved seismological instruments, to be placed in charge of Mr. George Hogben, and that a contribution of £25 be granted toward carrying out that object. All of which were adopted. The usual votes of thanks were passed, and the sessions declared adjourned. More than 300 members were present at the meetings, and 269 papers were presented.

Next Meeting.—The meetings of the association are naturally held in the different colonies in succession, and in order that ample time may be had for preparation the place of meeting is usually designated at least two meetings in advance of the gathering. In 1900 the meeting will be held in Melbourne, Victoria, and in 1902, by rights, the meeting should be held in New Zealand, but as the representatives of that colony asked for postponement, Tasmania was selected and the place named was Hobart. For the presidency of the Melbourne meeting R. L. J. Ellery, late Government astronomer of Victoria, was chosen. C. R. Brackett, Government analyst of Victoria, was elected local treasurer, and W. Baldwin Spencer and E. F. J. Love, local secretaries.

ASTRONOMICAL PROGRESS IN 1898. As regards important discoveries in astronomy, the present year may be said to equal any of its predecessors since the discovery of the fifth satellite of Jupiter.

The Sun.—Although since the invention of the telescope the Sun has been subjected to most rigid observation, yet in regard to his physical structure—the cause of his light, and heat, and spots, and faculae, and pores, and prominences, and coronal atmosphere, or whether he contains any solid matter at all—we know absolutely nothing. There is not an astronomical fact on which to base the oft-repeated theory, that eighteen million years hence he will cease his shining and become a worn-out world. Neither is there an astronomical fact to prove that his heat was ever less intense than in our age.

To obtain the Sun's horizontal parallax has always been considered the grandest problem that man ever attempted to solve. Though its true value has doubtless been obtained within narrow limits of error, yet it is not certain that its exact value has been ascertained. It is now assumed to be $8.80''$, the mean of its determinations by various processes, including the transits of Venus. Adding to or subtracting from this value the minute amount of only $0.01''$ decreases or increases the computation of the Sun's distance from the Earth to the extent of 105,000 miles.

The following statistics regarding the Sun, though probably not exact, are the most reliable that can be given now. They are based on the assumption that his parallax is $8.80''$: His mean distance from the Earth (always reckoned from center to center) is 92,885,000 miles, with a variation between Jan. 1 and July 3 of 3,100,000 miles, owing to the ellipticity of the Earth's orbit. His angular diameter = $32' 4''$, and his linear diameter

886,400 miles, or 109.3 times that of the Earth. The mean time of his rotation on his axis is about 25.38 days, but in different latitudes the time of rotation differs, being twenty-five days at his equator, and increasing to 27.5 at latitude 45° north or south. Authorities differ widely as to the temperature of his surface. The lowest estimate (probably much too low) is $18,000^\circ \text{ F.}$ or $10,000^\circ \text{ C.}$ Until the Sun's parallax is exactly ascertained it is incorrect to say that planets are so many miles from the Sun; it should be said they are so many times the Earth's distance. When this was assumed to be 95,000,000 miles, the computed distance and volume of every heavenly body (the Moon excepted) was too great.

At the eclipse of the Sun on Jan. 21, 1898, which was total through India, and was observed by a large number of astronomers, many important observations and discoveries were made, as at every station occupied by astronomers the sky was clear. At this writing only brief newspaper reports have been published, the more extended ones being reserved for publication in "An Eclipse Volume." The great southwest ray which attracted so much attention, as photographed by Mrs. Maunder, extended to six diameters of the Sun, or a distance of 5,188,400 miles. This is the longest coronal streamer ever photographed, though Prof. Langley claims to have seen one from Pike's Peak at the eclipse of 1878 extending to a distance of nearly 10,000,000 miles.

The corona is a magnificent appendage or halo surrounding the Sun, whose diameter is at least 10,000,000 miles, seen only during the few moments of total eclipse. Near the Sun it appears like striated filaments, some radial and others tangential, its circumferential portion ending in a diffused light. While the prominences are red, the corona is of silver whiteness. Recent spectroscopic analysis of the coronal light gives a faint continuous spectrum, showing it to be from solid matter; also an additional spectrum of bright lines emanating from glowing gases, notably from hydrogen. In the green there is a double line, which for a long time was without a known representative on the Earth, and was called the 1474 line before it was found to be double. Finally it received the name helium. This is now found to be a widely distributed terrestrial element, though in very minute quantities. One of the lines is now found to coincide with a dark iron line in the solar spectrum. The substance producing the other line has not been found on the Earth. It has received the name coronium.

Mercury.—Astronomers are not in accord on the subject of the alleged markings on Mercury. The weight of evidence, which, of course, is purely negative, is against their reality. Whether, therefore, he rotates in about twenty-four hours, as many suppose, or in eighty-eight days, is still a disputed point, as is also the question whether the real surface of the planet ever has been seen.

Venus.—The remarks above apply also to Venus, a world that, with the exception of the Moon and the newly discovered asteroid DQ, makes the nearest approach to the Earth of any heavenly body. Some astronomers with inferior instruments, using small apertures, claim to see markings of dark streaks similar to those that some see on the planet Mars. On the other hand, astronomers of large observational experience on planetary details, and with telescopes of mammoth size, like those at the Lick and Yerkes Observatories, see nothing at all. We are confronted here with one of the strangest and most inexplicable phenomena within the domain of observational astronomy. The drawings of those who claim to see the markings do not agree

among themselves. Since attention is called to their existence, and drawings of their appearance have been widely distributed among astronomers, it is amazing that our best observers, with powerful telescopes of marvelous perfection, see nothing that others claim to see with small apertures and low powers. Prof. A. E. Douglas, of the Lowell Observatory, at Flagstaff, Arizona, who, with Percival Lowell, is the champion of the theory that the markings have a real existence, and may possibly be canals, says: "I decided long since that in planetary work the greatest efficiency is obtained with the smallest aperture that supplies the required illumination. An inch-and-a-half lens shows the markings on Venus nicely, but they are not so well defined as in a lens of three inches." He further says, in "Monthly Notices of the Royal Astronomical Society" for May, 1898, that he "has had at his command various optical powers on telescopes of 3.6, 13, 18, and 24 inches aperture, using generally a magnifying power of 150 diameters, and has spent many thousand hours on Venus alone, using the telescope in both normal and reversed positions, which shows that their object glasses and eyepieces are free from fault."

Mars.—Capt. P. B. Molesworth, of Ceylon, has forwarded to the Mars section of the British Astronomical Association a memoir, accompanied by seven very detailed drawings and a map of Mars, as seen by his 9-inch reflector. The results arrived at are the most remarkable yet published. He independently confirms the existence of the fog that covered the north polar region to the extent of 60°, equal to 2,240 miles. He reports on observing 15 to 20 of the lakes seen by others. In addition to the lakes he gives a list of 31 canals he had observed, 8 of which were seen double on various occasions. Something like 50 canals have been recorded as seen by others. As to the origin of the network of the so-called canals, astronomers are not agreed; in fact, many deny their existence. Astronomers are pretty generally agreed that the supposed canals are not canals at all, but dikes thrown up to control the spread of surface water.

The extraordinary discrepancy in the results of many astronomical determinations of the polar compression of Mars is one of the most amazing in the history of astronomical measurements. Sir William Herschel made the compression $\frac{1}{4}$; Kaizer, $\frac{1}{7}$; Main, $\frac{1}{3}$; Young, $\frac{1}{10}$; Barnard, with the 36-inch telescope at the Lick Observatory, $\frac{1}{10}$; Schur, $\frac{1}{10}$; Adams, $\frac{1}{10}$. Daws found none, and on one occasion found an elongation. Arago, from observations of thirty-six years, got the enormous value of $\frac{1}{4}$. The polar compression of the earth is $\frac{1}{295}$, equal to 26½ miles.

Asteroids.—The most remarkable discovery in astronomy since Barnard found the fifth satellite of Jupiter has recently been cabled from Europe. Mr. G. Hitt discovered, on Aug. 13, an asteroid whose provisional number is DQ, having an extraordinarily rapid motion. As computed from observations made on Aug. 14, 23, and 31, it was found that at perihelion the little planet will be nearer the sun than Mars; or, in other words, the perihelion of its orbit lies between the Earth and Mars. This is the only known instance of an asteroid orbit whose eccentricity is such that its perihelion point lies inside that of Mars. This discovery raises anew the question whether the almost microscopic satellites of Mars were not originally asteroids, and also whether, in the coming ages, he may not obtain another. The field of imagination here is wide, and asks if the little fifth satellite of Jupiter may not also have been originally an asteroid, the eccentricity of whose orbit was so great as to cause its aphelion to extend to or beyond Jupiter's orbit.

The following elements of this remarkable member of the asteroidal group have been computed for it:

Epoch 1898, Aug. 31.5 Berlin mean time. Mean anomaly, $220^{\circ} 14' 8.7''$; node to perihelion, $178^{\circ} 28' 26.2''$; longitude of node, $363^{\circ} 48' 53''$; inclination, $11^{\circ} 6' 57.1''$; angle of eccentricity, $13^{\circ} 13' 3.8''$; eccentricity, 0.22865; 2,010.181; mean daily motion, semi-axis major, 1.46057; period, 644.7 days.

At perihelion it approaches within 14,000,000 miles of the Earth. At a favorable opposition, therefore, this asteroid will afford the best opportunity known for determining the Sun's parallax, and therefore the dimensions of the solar system and the diameter of every planet. At this opposition the planet was of about the eleventh magnitude, but when its perihelion and opposition occur simultaneously it will be of the sixth magnitude and visible to the naked eye.

Since the last report, nine asteroids have been discovered, as follow:

NO.	Designation.	Discoverer.	Date.	Name.
428.....	DK	Villager.	Nov. 18, 1897.	Monachia.
	DL	Charlois.	Nov. 9, 1897.	
	DM	Charlois.	Dec. 18, 1897.	
	DN	Charlois.	Dec. 18, 1897.	
	DO	Charlois.	Dec. 18, 1897.	
	DP	Charlois.	July 18, 1898.	
	DQ	Hitt.	Aug. 13, 1898.	
	DR	Wolf.	Sept. 11, 1898.	
	DS	Wolf.	Sept. 11, 1898.	

Jupiter's Satellites.—Prof. A. E. Douglas, in "Astronomische Nachrichten," has given a description, accompanied by an illustrated sheet of the markings on Jupiter's third satellite, made at the Lowell Observatory, at Mexico, and Flagstaff with the 24-inch Clark refractor. They much resemble those alleged to be visible on Mercury, Venus, and Mars. From these markings he calculates the rotation period to be nearly one week, being about the same as the period of its revolution around Jupiter.

After a reduction of the observations on the fourth satellite was begun he met with this curious fact: that either the satellite rotates in one half of its period of revolution, or the detail is symmetrical with respect to its axis. From the motion exhibited from day to day by the more conspicuous points of its detail, he judged the latter to be the case. He also made prolonged observations of all the satellites except the fifth. From observations of the first satellite, he concludes that the rotation period is $12^{\text{h}} 28^{\text{m}} 48^{\text{s}}$. Its axis is assumed to be perpendicular to the plane of its orbit. His micrometer measurements give a very elliptical form to the first satellite, which would indicate a period of rotation much shorter than that given above.

Saturn.—The following is a brief résumé of discoveries made on this interesting planet, notably at the Juvisy Observatory, France, in 1897 and 1898, by MM. Flammarion and Antoniadi: The belt north of the equator is always seen double by them. The dark spots discovered on the belt in 1891 by Stanley Williams were frequently seen at Juvisy in 1896, 1897, and 1898 by both observers and by persons who knew nothing of their existence. Few astronomers, however, have been able to see them. No trace of Encke's division of the outer ring (A) was seen by them, though assiduously searched for; but Cassini's division was easily seen all round the ring. Extensive observations were made on the middle ring (B), but little detail was observed save the convincing evidence that its inner edge is not a real edge toward the inner ring (C) or the gauze ring. The planet has lately been better situated for observation than for the past fifteen years, and the ring system is open the widest possible to our line of sight. The observers at Juvisy declare that the

ring system is always eccentric to the globe, nearer west than east—that is, the eastern vacuity is greater than the western. Two sets of accordant measures gave 4.3" for the distance separating the planet's limb from the inner edge of ring B, and 4.0" for the corresponding distances of the west. Several observers declare they have seen the middle ring divided as distinctly as the visibility of Encke's division of the outer ring. By one astronomer the middle ring was seen divided into three parts. The inner ring was exceedingly faint, but was seen separate from ring B by a distinct shading. The planet was seen clearly through the crape ring (C), and the shadow on the globe sharply defined with no irregularities.

Planetary Magnitudes.—At length we doubtless have the diameters of the planets and their satellites more accurately determined than has heretofore been possible. Dr. E. E. Barnard, at the Lick Observatory, made an extensive series of micrometrical measurements, lately published, of all the planets and some of the satellites. They were all made with the 36-inch telescope, except those of Mercury, which were made while he was transiting the Sun with the 12-inch telescope contracted to 4 and 5 inches. To be as brief as possible, their dimensions are given in miles only: Mercury, 2,765 miles; Venus, 7,826; Mars, equatorial, 4,352; Mars, polar, 4,312; Mars's spheroidity, 40; Jupiter, equatorial, 90,190; Jupiter, polar, 84,570; Jupiter's spheroidity, 5,620; Saturn, equatorial, 76,470; Saturn, polar, 69,780; Saturn's spheroidity, 6,690; outer diameter of ring A, 172,610; inner diameter of ring A, 150,480; outer diameter of ring B, 145,990; inner diameter of ring B, 110,070; space between rings A and B, 2,245; inner diameter of crape ring, 88,190; Uranus, diameter, 34,900; Neptune, diameter, 32,900. *Satellites:* Jupiter No. I, 2,452 miles; Jupiter No. II, 2,045; Jupiter No. III, 8,558; Jupiter No. IV, 8,445; Saturn's Titan, 3,720. *Asteroids:* Ceres, 485 miles; Pallas, 304; Vesta, 243; Juno, 118.

Stellar Parallax.—Dr. Gill, from observations made at the Cape of Good Hope Observatory, concludes that the parallax of Alpha Centauri is certainly between 0.74" and 0.75", and that of Beta Orionis (Rigel) is not greater than 0.01". He finds that of Alpha Gruis to be 0.015". It is perhaps needless to notify the reader that but little credence can be given to measurements so minute as the last. M. Hoffer finds the mean distance of Beta, Gamma, Delta, Epsilon, and Zeta Ursæ Majoris (five of the seven stars forming the Great Dipper) is four million times that between the Earth and the Sun; and that Epsilon is forty times brighter intrinsically than the dog star.

Proper Motion of Stars.—Dr. Capteyn recently discovered a star that has a larger proper motion than has Groombridge 1830, which heretofore has been considered the most rapid known, and has been called the "runaway star." Capteyn's star is in the Cordoba Zone Catalogue, where its place is given as right ascension $5^h 6^m 40.61^s$; declination south $44^\circ 58.17'$, for the epoch of 1873. He deduces an annual proper motion for it of 8.707", while that for Groombridge 1830 is but 6.723", or nearly two seconds greater. The star is of the ninth magnitude, much fainter than the Groombridge star.

Discovery of Nebulae.—Since Dr. Lewis Swift, with his astronomical instruments, removed from the Warner Observatory, at Rochester, N. Y., to the Lowe Observatory, at Echo Mountain, California, he has devoted his time to the discovery of nebulae and comets. In the past three and a half years he has discovered 6 comets, and more than 300 nebulae, nearly all southern. The "Astronomische Nachrichten," No. 3517, published at Kiel, Germany,

contains a catalogue of 243 of the nebulae discovered at Lowe Observatory, with a description of each, and several notes. They are mostly very faint. A few are very interesting. From his low latitude, $84^\circ 20'$ north, he has a great advantage over most other northern observatories. Besides this, the number of clear nights is out of all proportion to those enjoyed elsewhere. In July, 1897, there were 31 clear nights, and in August 29, and during the year 299 nights were clear, 25 partly clear, and 41 cloudy. One of the nebulae is a nebulous star of the eighth magnitude in the center of a round, sharply defined nebulous atmosphere. Two were line nebulae, which must be either rings or flat disks, with their edges parallel to the line of sight. The ring nebula in Lyra is perpendicular to the line of sight. This remarkable object was discovered in 1779 in France, by Darquier. The spectrum shows it to be composed wholly of gas, without a star. Between us and it or beyond, we know not which, is a central star of unimagined faintness. On it and within it the great Lick telescope shows 11 stars besides the central one.

Astronomical Constants.—The exact value of the astronomical constants—precession, aberration, and nutation—has ever been disputed, and lately the question has assumed the dignity of international importance. For many years prior to A. D. 1900 the value given in the "American Nautical Almanac" to precession of the equinoxes was $50.2411'' + 0.0002268t$, for nutation $9.2231'' + 0.000009t$, in which t is the number of years since A. D. 1800, and to aberration $20.4451''$. As the evidence appeared strong that they were slightly erroneous, Prof. William Harkness, who is now its director, has for the "Almanac" for A. D. 1900 changed those constants as follow: Precession to $50.2482'' + 0.00022t$, nutation to $9.21''$, and aberration to $20.47''$, and mean obliquity of the ecliptic to $23^\circ 27' 8.26''$. Aberration is the displacement of a star by the Earth's orbital motion combined with the motion of light. It therefore follows that if the velocity of light be known, and the amount of aberration with exactness, the most elementary mathematical calculation will determine not only the rate of motion of the Earth in its orbit, but its circumference also and the radius, and finally the solar parallax itself. The velocity of light is considered to be accurately known; and were the value of the aberration equally trustworthy this method of obtaining the parallax of the Sun would be one of the most exact and convenient we possess. Unfortunately this, like all the other processes for obtaining the Earth's distance from the Sun, has a slight uncertainty, which until recently was supposed not to exist. Prof. Doberck, of the Hong-Kong Observatory, has introduced a very extraordinary element of doubt into the problem by discovering that the value of the aberration constant decreases with the decrease of the magnitudes of the stars observed. For instance, when the average magnitude of the stars observed was $4\frac{1}{2}$, the constant came out $20.689''$; with stars of $5\frac{1}{2}$ magnitude it became $20.430''$, and with $6\frac{1}{2}$ it was only $20.385''$. The almost inconceivable variation, as indicated above, entails a vast difference in the Sun's distance from the Earth, showing that it may be either 93,641,600 miles, 92,693,300 miles, or only 92,489,100 miles. Prof. Doberck is of the opinion that the constant of aberration thus found to depend on the magnitude of the stars observed may reconcile the differences in the values obtained at different observatories.

Variable Stars.—The discovery of stars that vary in brightness has made much advancement during the past few years. The number of astronomers, and especially of amateurs, engaged in their detection and the law of their variation is very

large. As an observatory and expensive instruments are not required, it has become a delightful pastime for amateurs, and consequently the catalogue of known variables has assumed immense proportions. The number now known amounts to several thousand. The cause of their variability has given rise to much discussion. That the majority vary from eclipses, total and partial, by dark satellites, is the most rational theory that has been advanced. The variations are from a fraction of a magnitude to invisibility, except with powerful telescopes. The most surprising of all is the finding of 310 variables in the cluster Messier 3; one ninth of all the stars in the cluster vary in brightness. Prof. Pickering records the discovery of 8 variables in the southern sky, their fluctuations being detected by examination of their spectra. At the Cape of Good Hope Observatory 16 new variables were lately discovered. Stanley Williams, in "Astronomische Nachrichten," Nos. 3440 and 3450, gives a list of 13 that thus vary. Mr. Espin announces the variableness of a star in right ascension for A. D. 1900, $20^{\text{h}} 29^{\text{m}} 55^{\text{s}}$; declination north, $54^{\circ} 57'$. It varies from ninth to fourteenth magnitude, or practically to invisibility. R. Carinæ is a very interesting variable through wide limits, though not in a very short time, like many others. According to Prof. John Tebbutt, of Windsor, New South Wales, it varies from a pretty bright star to complete invisibility without a telescope. In four months and fifteen days it decreased from the 4.9 magnitude to 9.8. It is exceedingly improbable that the fluctuations of this star can be caused by an eclipse of one star by another.

The photometric observations of U. Pegasi show that a principal maximum alternates with a secondary minimum, the light curve closely resembling that of Beta Lyra. The period is $8^{\text{h}} 59^{\text{m}} 41^{\text{s}}$, which differs from Dr. Chandler's value of $5^{\text{h}} 32^{\text{m}} 15^{\text{s}}$; but it is pointed out that 16 half periods are nearly equal to 13 of Chandler's, each being just less than three days. Hence, Omega Centauri 19, with a period of $7^{\text{h}} 11^{\text{m}}$, now displaces U. Pegasi as having the shortest period known.

Celestial Chemistry.—Within the past twenty-five years the splendid discovery of spectroscopy, aided by great improvements in photography, the increased size of telescopes, and the adoption of electric appliances, has given rise to what may be called a new astronomy. The uses of the different varieties of spectroscopy are many and varied. There are four forms of the instrument—the prismatic camera; the slit spectroscope, used with the telescope as an analyzer; the slit spectroscope, used without a telescope, as an integrator; and an analyzing spectroscope, used without a slit.

During total eclipses of the sun the spectroscope has solved several disputed points, notably the cause of the "flash," or reversing layer, as Prof. Young, its discoverer, calls it—a beautiful phenomenon which appears just at the beginning of totality, when the rapidly narrowing strip of continuous spectrum is invaded by a series of bright points, which shine for an instant as a crowded series of bright little colored arcs after the continuous spectrum has gone, and disappear, in their turn, a second and a half later. The same phenomenon, but in opposite order, is seen at the end of totality. There is no doubt, says Prof. E. W. Maunder, of London, as to the meaning of that short-lived phenomenon. It represents a region of glowing gas, extending to a height of about 700 miles above the solar surface. So much seems clear. The debatable point is the relation of these gases to the dark lines which are found in the spectrum of the solar disk. The literature of the subject is extensive, involving the discussion of two theories, which can not be dealt with here.

Celestial Photography.—At the Meudon Observatory, France, the nebulae are being photographed by a reflector of one metre aperture and three metres in focal length, which reveals some singular and unexpected results. The ring nebula in Lyra was taken with an exposure of twenty, thirty-five, and fifty-five minutes. The nebulosity in the interior increases in brightness and density with the length of exposure, while the diameter of the ring increases but very little. An exposure of fifty minutes on the planetary nebula in Aquarius shows an appendage surrounding it resembling the ring of Saturn. A photograph of the Pleiades shows additional streamers of nebulosity.

In "Monthly Notices of the Royal Astronomical Society," No. 7, 1898, Isaac Roberts, the distinguished celestial photographer, has a seven-page article on the photograph of the nebulae in the Pleiades and surrounding stars, with an exposure of ten hours, accompanied with two half-tone illustrations. The long exposure of course overexposed the brighter stars, but it brought to light many thousands of stars never before revealed to human eyes. It shows the Merope nebula and the others heretofore seen by the telescope, and additional to these it shows numerous nebular streaks invisible with the telescope, and, what is singular if they are not results of some defects in the camera, they are all nearly parallel with each other. He is of the opinion that the bright stars, as we see them, have no connection with the nebulae, but are simply depicted on the nebulae, which may be either beyond the stars or this side of them. He is also of the opinion that the streaks have no connection with the flocculent nebulae, but are nebulae seen nearly edgewise. It seems incredible that so many flat-disk nebulae should, on so small an area of the sky, have their edges so nearly parallel to our line of sight. In his description of this remarkable admixture of nebulae and stars he makes no mention of the new Merope nebula seen by mammoth refractors. The old Merope nebula is of the streaky character, with the star (a naked-eye one) in the center of the denser part. Electra does not seem to be involved in nebulosity, but there is a streak of strong nebulosity extending $14'$ of arc from it. Alcyone is involved in nebulosity, both of the streaky and flocculent kinds, the streaks crossing those of the Maia nebula without any apparent disturbance or commingling.

During the total phase of the eclipse of the Sun Jan. 21, 1898, many photographs of it all along the line of totality were taken, by comparison of which many details of progressive changes were seen. The great southwest ray on one plate extended almost to its edge, three diameters from the Sun's limb, or nearly 2,750,000 miles in length. An attempt was made to photograph the zodiacal light, but nothing was depicted on the plate after an exposure of two and a quarter hours. Many photographs of the Milky Way and other regions rich with stars, not visible from northern countries were taken. One of the remarkable features of the scheme was the immense size of the field the Dallmeyer lens gave, which covered fully $40'$ in diameter, the first time, says Mr. Maunder, that anything like so wide a field without distortion was ever made. It was a little stigmatic lens only $1\frac{1}{2}$ inch in diameter and 9 inches in focal length. It was also used on the corona during the total phase of the eclipse. The exposures of the star fields were four and a half hours each.

Mr. Loewy's "Annual Report of the Paris Observatory" for 1897 has lately been published, and, as usual, contains much interesting and instructive information in regard to the work carried on at that observatory. The great equatorial Coudé has

been chiefly employed in taking negatives of the Moon for the Photographic Atlas of her surface that is now being published.

The first part of the task allotted to the observatory in connection with the photographic construction of the great catalogue of stars is practically completed. Of the 1,260 plates that fell to its share, only a few remain to be taken, and these only for some which, from accidental causes, were rejected during the progress of the work. The rectilinear co-ordinates of the stars to the eleventh magnitude have already been determined on 429 of these plates. Attention is called to an admirable heliograph of the crescent Moon when 4^d 6^h 24^m old, which never has been surpassed.

Photographic Spectra.—After many unsuccessful attempts to photograph the spectrum of the aurora at the many observatories Mr. E. S. King has succeeded. One plate shows four bright lines, and another two bright lines. Assuming that the lines on both occasions were the same, the four lines have wave lengths 3862, 3922, 4288, and 4964.

A photograph of the spectrum of shooting stars was obtained at the Harvard College Branch Observatory, at Arequipa, Peru, on June 18, 1897. The spectrum consists of six bright lines, the intensity of which varies on different portions of the photograph, thereby showing that the light of the meteor varied as its image passed across the plate. The approximate wave lengths of the lines are 3954, 4121, 4195, 4344, 4636, and 4857, and their intensities are estimated as 40, 100, 2, 13, 10, and 10 respectively. The first, second, fourth, and sixth of these lines are probably identical with the hydrogen lines H ϵ , H δ , H γ , H β , whose wave lengths are 3970, 4101, 4341, and 4862. The fifth line is probably identical with the band at wave length 4633, belonging to the spectra of stars of the fifth type, and forming the distinctive feature of the third class of these stars. This is the first time a spectrum has been obtained of a shooting star.

Photography of Meteors.—Meteor trains on photographic plates are of frequent occurrence. Dr. E. E. Barnard, of the Yerkes Observatory, at Williams Bay, Wisconsin, who is authority on celestial photography, says: "For such work it is best to use a short-focus portrait lens, or, where the scale is not too important, a small cheap lantern lens is far more rapid and gives a wider field. This is best attached to an equatorial telescope with clock motion, but good work can be done with a fixed camera, and if two observers are situated several miles apart their parallaxes and, of course, their height in miles above the Earth may be easily obtained."

Star Showers.—Before the volume in which this article appears is published, the forerunner of the great shower of 1899 will have occurred, and before the volume of 1900 reaches its readers the return of the great meteoric showers of 1799, 1833, and 1866 will also have taken place. It seems, therefore, advisable to go somewhat into detail as to its cause, and what may be expected on its return in 1899.

Prolonged investigation has revealed the fact that shooting stars have their origin in disintegrated comets. They are cold, dark bodies, but in encountering our atmosphere, moving as they do with unimagined swiftness, they are instantly, by friction with the atmosphere, converted into heat so intense that they are instantly burned up. Only while undergoing the process of combustion do they become visible. They are very small, probably not larger than rice grains. Bolides and the fall of meteoric stars have no connection whatever with shooting stars, which never reach the Earth: the atmosphere, acting as a cushion, prevents, especially

during a star shower, a dangerous bombardment. Many millions enter our atmosphere daily and are dissipated into vapor. Each one is a remnant of the tail of some comet. These are called sporadic meteors, to distinguish them from those that fall in showers, of which something like 100 are known, 50 of which have their radiants well established.

The history of the Nov. 13th shower can be traced to A. D. 902 (O. S.). At that time it occurred in October. It is the greatest of them all, and was historically noticed on the morning of Nov. 12, 1799, on the 13th in 1833, and on the 14th in 1866, and it will reappear on the morning of the 15th, 1899. The writer witnessed that of 1833, when it was estimated that 230,000 shooting stars were seen from any one point. The display was visible throughout the length and breadth of the American continent. It was immediately noticed that, in whatever part of the sky they were seen, their trails, if traced backward, would meet like the radii of a circle, at the sickle of Leo, called the radiant. The radiant of the 1899 shower will still be there, or very near it. It is not a point, but an eclipse about five degrees in diameter.

The cause of this shower, briefly stated, is about as follows: In A. D. 902 a large comet entered our system, having a direct motion (west to east), and, passing near the planet Uranus, had its orbit changed to retrograde (east to west), and threw off a long tail, which, after several reappearances and repetitions, formed a ring of comet tails around the sky, so situated that the Earth passes diagonally through it about the middle of every November, producing a light shower of meteors, which lasts as long as the Earth is passing diagonally through it and no longer, five or six hours. On one of its returns, the comet, from some unknown cause, burst, scattering its little particles, called meteoroids, along its path for many million miles. These meteoroids revolve around the Sun once in thirty-three and a quarter years; and as this is not an even multiple of the Earth's revolution, the Earth passes annually through it in a new place, which brings the swarm to the crossing point about three times in a hundred years. The last took place in 1866, and the next will occur on the morning of Nov. 15, 1899. It may possibly be on the 14th, which was the case in 1866, and as the swarm is many million miles long, it is expected that the Earth will pass through one end of it in 1898, and through the other end in 1900. Neither the point where, in the cluster, the Earth will pass through nor which continent will be ahead, so to speak, when the cluster is encountered, can be foretold. It is expected that the middle shower (1899) will far outshine the other two, but unfortunately it will happen in the presence of a full Moon. The reader may ask why this shower always takes place in the morning hours, while the Aug. 10th shower always occurs in the evening hours? The meteoric ring that causes the Nov. 15th display (not the Nov. 27th shower) revolves around the Sun retrograde; the Earth therefore overtakes it on the front side, so to speak, or, in the morning hours, while the ring that produces the Aug. 10th shower, the Perseids, moving direct, overtakes the Earth on the rear or evening side.

Prof. Theodor Bredikhine has given, in the "Bulletin of the St. Petersburg Academy," the results of his investigations as to what members of the solar system are responsible for the disturbances in those meteoric systems encountered by the Earth in its annual orbit. He adopts the view that meteoric systems are composed of the fragments of comets which, traveling the interplanetary spaces, have lost a portion of their material. The larger number of meteoric streams examined have resulted from long

disturbances by the Sun. Among these are the Leonids, Quadrantids, Geminids, and Aquarids. The Orionids owe their origin to the perturbations set up by Jupiter, while the Lyrids are due to Saturn.

Messrs. Schaeberle and Colton have succeeded in getting the parallax of a meteor, and if this is correct, its height above the earth is easy of computation. They made the parallax 9.09', and the height of the middle of its path above the Earth 99 miles.

During the Jan. 1st, 1898, shower one observer counted in six hours 109 Quadrantids and 21 others. From observations reported from various places, the usual number were seen belonging to the various showers above named, all going to show that we have many things to learn about them before meteoric astronomy can become an exact science.

Mr. Denning, of England, who is our best authority on meteoric astronomy, urges the value of observations of the real paths of meteors and fireballs in supplying data for the after comparison, especially in tracing their identity with individual meteors of former years. Thus he points out that a brilliant meteor radiating from the constellation Auriga in 1896, Sept. 10, came from the same stream that gave the fireball of 1866, Sept. 6, and 1867, Sept. 8, and that all three are identical with the showers of 1870, Aug. 29, 1885, Sept. 12 and 15, and 1879, Sept. 15-16. He cites one or two cases where meteors became visible at great heights. The greatest instance was that of a small Perseid on Aug. 15, 1893, which at its first appearance was 126 miles above the Earth. On or about Nov. 23, 1896, or 1899, the meteors connected with Biela's comet, which radiate from Andromeda, may be expected. They made splendid displays in 1872 and 1885. But the most important of all the 50 star showers is the Leonids of Nov. 14-15. Its history can be traced nearly one thousand years. A singular feature of it is that a telescopic comet (Tempel's) revolves around the Sun in the same orbit, and to this comet the meteors owe their parentage. It was discovered Jan. 1, 1866, and will probably be reobserved in the spring of 1899.

Double Stars.—The discovery of double stars is progressing at a rate unprecedented, which is confirmatory of the supposition of many, that when larger and more powerful telescopes are made, and more observers are engaged in the fascinating work, more stars will be found to be double, triple, and multiple than were deemed probable in the days of the Herschels, who were pioneers in the work. In Gould's "Astronomical Journal," now edited by Dr. S. C. Chandler at Cambridge, Mass., in Nos. 431 and 432, 1898, is a surprisingly long list of new double stars discovered at the Lowell Observatory, at Mexico, and at Flagstaff, Arizona, by Dr. T. J. J. See. It fills 32 three-column pages of the "Journal." It contains the places for Jan. 1, 1900 A. D., their magnitudes, distances apart, and other important data, of 500 members, all southern stars. Many are very interesting for various reasons, especially from their brightness and excessive closeness. Many are considered binaries. The number of double stars now known, reckoning only those that are sufficiently close to be eventually proved binaries, amount to several thousand, and still there is a daily addition to the number, for there are many enthusiastic workers in the field. Dr. See, in "Astronomische Nachrichten," Nos. 3495, 3496, has published a list of double stars that he has measured, some of which he has discovered. In many cases his measures are the first that have been made and published. In prosecuting the work more than 10,000 stars were examined, and more than 1,000 double, triple, and multiple stars were measured.

Dr. See has been observing the binary stars Burnham 883, Sirius, and Procyon. The distance of the

components of β 883 are only about one quarter of a second of arc. During the past year the angle of motion has not changed more than 6°, yet between 1894 and 1895 the arc moved over was 25°, which indicates a long radius vector. He thinks that in about another year the distance between them will be greatly diminished, and then the angular motion will become very rapid. He makes the distance between the components of Sirius, the dog star, 4.86", and the motion accords with that theoretically ascribed for it years before it was optically discovered to be double by Alvan G. Clark in 1862. Its period is fifty-two years.

Procyon, like Sirius, was theoretically known to be a double star by its perturbations, caused by a component which no one could see, though it was long searched for, until three years ago, when Prof. Schaeberle, with the 36-inch telescope at the Lick Observatory, discovered it. Its distance from the large star is now 4.78", and it has an annual orbital motion of 6". It is of the thirteenth magnitude. The companion has been observed at the Greenwich Observatory on three nights. It was noticed that its appearance was unlike the companion of Sirius; for while the wire of the micrometer totally eclipsed the companion of Sirius, that of Procyon was seen on both sides of the wire. Perhaps the companion is a nebulous star.

Gamma Leonis is one of the most beautiful double stars in the heavens. It has always been considered a long-period binary. Prof. S. W. Burnham has collected all the best available angular positions since its discovery by Sir William Herschel in 1782. In 1824 Sir John Herschel said: "There can be no doubt of the motion of Gamma Leonis, though it is probably less rapid than supposed by Sir William Herschel." Prof. Burnham, who is authority second to none on binary stars, has lately arrived at the conclusion that the motion observed by different astronomers is rectilinear instead of orbital.

On pages 220 and 221 in "Monthly Notices of the Royal Astronomical Society" is a list of several hundred double stars, by all the principal observers, including the computation of the periods of six orbits, as follow:

NAMES OF STARS.	Period of revolution.	Semi-axis major.
82 Ceti.....	16.3 years.	
Sirius.....	51.8 "	7.62"
Burnham 883.....	5.5 "	0.76"
Burnham 395.....	16.3 "	0.57"
Mu ⁸ Boötis.....	275 "	1.48"
O. Struve 400.....	85 "	
Gamma Lupi.....	88 "	

Only three known telescopic binaries exceed 82 Ceti in the shortness of their periods. They are Burnham 883, Chi Pegasi, and Delta Equelei, with periods of 5.5, 11.42, and 11.45 years respectively.

Three classes of binary stars have been discovered by the spectroscope, viz.: 1. Bright stars with relatively dark companions, the plane of whose orbits is so inclined that one periodically eclipses the other, of which Algol is a distinguished example. 2. Bright stars with relatively dark companions, whose orbits are so inclined that they never occult each other. 3. A system of two or more bright stars. Those belonging to the first class are called Algol stars, one component only being visible with the telescope or the naked eye. Of the Algol type, 16 are now known, some of which have two minima, caused undoubtedly by eclipses of the brighter and the fainter component alternately. An inequality in the period of some seems to indicate that the star is triple, one bright and the other two dark.

To the second class belong Spica and Pollux, which show by the shifting of the lines in their

spectra, by an increase and decrease in their velocity toward and from the Earth, that they are accompanied, but not eclipsed, by their dark disturbing companions. It is almost certain that Eta Aquilla and Delta Cephei belong to this class.

Five binaries of the third class have been discovered through the curious process of the doubling of their spectral lines. The first discovered were Mizar and Beta Auriga, and recently Mrs. Fleming has added Beta Lupi to the list, but the period has not been discovered. The periods of some of them are very short. The relative velocities of the components of Mu³ Scorpii, Argentina General Catalogue, No. 10,534, are 290 and 380 miles a second respectively. These are much greater velocities than those of Mizar and Beta Auriga.

"Harvard College Circular" No. 12 gave a description of the spectrum of Zeta Puppis, in which, in addition to the usual series of lines of hydrogen, a second series of rhythmical lines were observed. Prof. Pickering and H. Kayser, in their examination of these lines, came to the conclusion that they are probably due to hydrogen under conditions of temperature and pressure as yet unknown to us. Some of these lines are also to be seen on photographs of the spectrum of 29 Canis Majoris. The third and fourth of these lines coincide with the principal lines in the V type. They are also present in Gamma Velorum, some being bright and some dark.

Stanley Williams announces an interesting fact concerning the southern variable Lacaille 3105, discovered a few years ago. At that time his observations indicated a period of four and a half days. Other observers considered the period much shorter than this. Prof. Pickering now announces that he finds the star to be a spectroscopic binary, with a period of 3.115 days, and Mr. Williams states that half of this period, or 1.558 days, will satisfy all observations. This star is a double star as well as a variable, which indicates that the variability is caused by one component occulting the other. The literature of variable stars, including their several varieties, is very extensive, and is scattered through many astronomical publications.

Comets.—Several comets, both new and expected, have appeared since the report of comets of 1897 was published, raising the number appearing in one year above the average, while in 1897 the number was much below the average. One remarkable circumstance, unexampled in the history of observational astronomy, was the discovery of five comets in eight days—three new ones and two that were expected. Comet B 1897 was discovered at the Lick Observatory, by Mr. C. D. Perrine, on the evening of Oct. 16. It was of moderate brightness, being easily seen with a 3-inch telescope. It had a well-marked nucleus, of the brightness of a star of the eighth magnitude, but was not a point like a star. Instead of being round, as nuclei always are, it was decidedly elliptical, the major axis being twice as long as the minor. This is proof that the nuclei of comets are not solid. In the 36-inch telescope a tail 4' long was visible, but it was 10' in length on a photographic plate. The following elements have been computed for it, which do not resemble those of any previous comet: Time of perihelion passage, 1897, Dec. 8.55, Greenwich mean time; from node to perihelion, 65° 48' 38"; longitude of node, 32° 2' 57"; inclination, 69° 35' 52"; logarithm of perihelion distance, 0.13269.

Winnecke's periodic comet, an ephemeris of which was widely disseminated among astronomers, was discovered by Perrine, with the 36-inch telescope, on the morning of Jan. 2, 1898. It was very faint. The correction to the ephemeris was very little.

Comet E 1898 was also discovered by Perrine on the morning of March 20. It had a tail 1° in length, the northern half being much brighter than the southern. A photograph of it, taken with an exposure of forty minutes, on the 25th, with a 24-inch projecting lens, at Carlton College, Northfield, Minn., showed two tails—one straight, 2' long, pointing directly opposite the Sun; the other curved toward the rear of its motion. The following elements have been computed for it: Perihelion passage, March 17, two days before discovery; node to perihelion, 47° 36' 8"; longitude of node, 262° 32' 26.3"; inclination, 72° 26' 50.4"; perihelion distance, 1.1008; period, 305.2 years.

Encke's comet, which has the shortest period of all the known periodics, was discovered within five minutes of its computed place on the night of June 7, by John Grigg, of New Zealand. This comet, unlike all the other short-period comets, seldom escapes detection on its return to perihelion.

Comet C 1898 was discovered by Perrine on June 14. The comet when brightest was faint and without a nucleus. Near the end of June his two comets, B and C, passed each other within half a degree, this being the second instance of the passing of two comets so near each other. The following elements were computed for it by Berberich: Time of passage, 1898, Aug. 16.338, Berlin mean time; from node to perihelion, 204° 55'; longitude of node, 259° 9'; inclination, 70° 1'; logarithm of perihelion distance, 9.8030.

On June 17, 1898, Prof. W. J. Hussey, using the 36-inch telescope at the Lick Observatory, found Wolf's periodic comet very close to the place assigned it by Thrace's ephemeris. It was also easily visible in the 12-inch telescope at that observatory. This was its second return since its discovery by Max Wolf, at Heidelberg, Sept. 17, 1884. It is a member of what is called the Jupiter family of comets.

On examining the negative plate of a photograph of the region of Alpha Scorpii made for another purpose, on June 9, 1898, Mr. Coddington, of the Lick Observatory, noticed a faint streak on the plate that looked as if it might have been caused by an undiscovered comet. On making a telescopic examination of the region on the evening of June 11, his suspicion was verified. It was Coddington's comet. When discovered it had a short, broad tail, and was moving rapidly in a south-westerly direction, and was soon too far south for northern observers. The following elements have been computed for it: Time of perihelion passage, 1898, Sept., 8.86, Greenwich mean time; node to perihelion, 227° 40'; longitude of node, 73° 58'; inclination, 71° 47'; perihelion distance, 1.8003.

A new comet was discovered on June 18 by M. Giacobini, at Nice, France, in right ascension 20^h 36^m 28^s; declination south 21° 14', or in Capricorn. The following are its elements: Time of perihelion passage, July 25.85, Greenwich mean time; node to perihelion, 22° 41' 26.5"; longitude of node, 278° 17' 30.3"; inclination, 166° 50' 58.1"; logarithm of perihelion distance, 0.175956.

Comet Perrine was discovered on Sept. 13, 1898, and independently by Chofardet on the 14th. From observations made on Sept. 12, 13, and 15 the following elements have been computed: Time of perihelion passage, 1898, Oct. 19.9565, Berlin mean time; node to perihelion, 165° 56.29'; longitude of node, 36° 20.85'; inclination, 29° 16.41'; logarithm of perihelion distance, 9.57608. Its brightness on Oct. 18 was eight times that at discovery.

Tempel's comet of 1867 escaped detection, although a finding ephemeris was published.

Meteoric Iron.—Lieut. Robert E. Peary, traveling in the region of Melville Bay, Greenland, in

1894, found one immense mass and two smaller ones of meteoric iron, weighing respectively 200,000 pounds (90 tons), 6,000 pounds, and 1,000 pounds. In 1895 he brought the two smaller ones to the United States, and in 1897 he transported the large one in the steamer "Hope." It measures 12 feet by 8 feet by 6 feet. In size and weight it immensely exceeds any ever found on the Earth. Polished samples of the three resemble highly polished steel. The universal feature of all meteoric irons, the Widmanstätt lines, are finely marked on them, unmistakably showing that they fell from the sky. Analysis shows them to consist of 92 per cent. of iron and 8 per cent. of nickel. Some scientists entertain the opinion that they are large shooting stars. In the writer's opinion they have no connection with them or with comets. It is a significant fact that during the great star shower of 1833, when countless millions of shooting stars appeared, there was no recorded instance of a meteoric stone having fallen to the earth.

Prizes.—The Council of the Royal Astronomical Society of London awarded its gold medal to William H. Denning, of Bristol, England, in recognition of his numerous discoveries in meteoric astronomy. The Laland prize was awarded to C. D. Perrine for the discovery of several comets in 1897 and 1898.

Endowment.—Miss Gould has given to the United States National Academy of Sciences the sum of \$20,000 to form a Benjamin Apthorp Gould fund, in honor of her distinguished father's memory. The expenditure of the increase is to be controlled by Prof. Lewis Boss, Seth C. Chandler, and Asaph Hall. The object of the gift is to assist observers and investigators, actual expenses being considered rather than their personal support. She desires that preference be given to Americans, and to astronomers of precision, rather than to astrophysics, and hopes her gift may relieve the Bache fund of the Academy of some of its astronomical expenses.

Telescopes.—On the comparative value of refracting and reflecting telescopes for astrophysical investigations varied opinions exist, which have caused much and prolonged discussion. Prof. George E. Hale, director of the Yerkes Observatory, finds certain important advantages in the reflecting form of telescopes, as follow: "1. Perfect exemption from chromatic aberration; all wave lengths, from the extreme infra-red to the extreme limit of the ultra-violet, being brought to the same focal plane. 2. Relatively small absorption for large apertures, the Newtonian reflector bringing about 60 per cent. of the visual, and 48 per cent. of the photographic rays to the focal plane. Hence for apertures much larger than that at the Yerkes Observatory (40 inches) the reflector gives brighter images than the refractor in both visual and photographic regions, and if the infra-red and ultra-violet are alone considered, the refractor would be of relatively small importance." These opinions, with others, coming from so experienced an investigator, are important as concerning future discoveries in astrophysics. The securing of large angular and linear apertures, coupled with the small cost of a speculum compared with a refracting object glass, the small cost of mounting, and an almost inexpensive dome, are matters of vast importance to the astronomy of the future. This settles a question which has been much discussed for many years.

AUSTRALASIA, one of the grand divisions of the globe, consisting of the continent of Australia and the island colonies of Great Britain in the Pacific, with intervening islands, all British dependencies except the Dutch and German parts of New Guinea, the German protectorates of Bismarck

Archipelago and the northern Solomon Islands, the French colony of New Caledonia, and smaller groups and islands still under native rule. The five colonies of Australia and the colonies of Tasmania and New Zealand are self-governing, each having its representative legislature and its responsible ministry, disposing of its own revenues and making all its own laws under constitutions granted by the British Parliament, subject to a certain veto power reserved to the Imperial Government and the appellate jurisdiction of the Judicial Committee of the British House of Lords in matters of imperial concern. The Crown is represented by a governor in each colony, who, as the executive head of the colonial Government, acts on the advice of ministers chosen from the party or combination that forms the majority of the Legislative Assembly. Fiji is a Crown colony, in which the natives are governed partly by their own chiefs in accordance with their traditional customs.

Area and Population.—The area of the British Australasian colonies, according to the latest surveys, and their estimated population are as follow:

COLONIES.	Square miles.	Population.
New South Wales.....	810,700	1,811,440
Victoria.....	87,884	1,171,888
Queensland.....	668,497	472,179
South Australia.....	903,690	865,283
Western Australia.....	973,920	102,374
Tasmania.....	26,865	172,541
New Zealand.....	104,471	748,214
Fiji and Rotuma.....	8,045	120,500
Total.....	3,085,592	4,472,419

The Australian aborigines are almost extinct in the older colonies. There were 8,280, including 3,183 half-castes, in New South Wales in 1891; in Queensland, about 12,000; in South Australia, 3,369 in the settled districts; in Victoria, 565. In Western Australia there were 5,670 civilized aborigines, and of those living in the unexplored regions no estimate could be made.

The population of New South Wales comprises 702,395 males and 609,045 females. Sydney, with its suburbs, had 410,000 inhabitants in 1896.

About five ninths of the population of Victoria live in towns. Melbourne, the capital, has 451,110 inhabitants; Ballarat, 45,315; Bendigo, 41,660.

The population of Queensland in 1891 consisted of 223,779 males and 169,939 females. There were 8,574 Chinese. Brisbane, the capital, with its suburbs, had 100,918 inhabitants at the end of 1896.

In South Australia there were 182,185 males and 173,101 females. In 1891 the Chinese numbered 3,848. The population of Adelaide, the capital, in 1897 was 144,352, including the suburbs.

Tasmania is scarcely increasing in population from European immigration, but there is a slow accession resulting from the movement between the island and Victoria. The population of Hobart, the capital, is about 26,000.

Of the population of Western Australia estimated in September, 1897, the males numbered 112,383 and the females 50,011. Perth, the capital, had about 43,000 inhabitants.

The white population of New Zealand on April 12, 1896, was 703,360, of whom 371,415 were males and 331,945 females. Of these, 63 per cent. were born in the islands and 31 per cent. in the United Kingdom. There were 19,080 foreigners and 3,711 Chinese. The Maoris numbered 39,854, consisting of 21,673 males and 18,181 females, and including 3,503 half-castes and 229 Maori wives of European husbands. The population of Auckland, including suburbs, was 57,616 at the census of 1896; that of Wellington, the seat of Government, 41,758; of Christchurch, 51,330; of Dunedin, 47,280.

The population of Fiji, consisting of 66,571 males and 53,929 females, comprises 3,292 Europeans, 1,201 half-castes, 10,433 East Indians, 2,310 Polynesians, 2,156 Rotumans, 100,321 Fijians, and 787 others. The native Fijians at the present rate of decrease will become extinct within a century. Their children are instructed by Wesleyan missionaries without Government aid.

The vital statistics of the several colonies for 1896 were as follow :

COLONIES.	Marriages.	Births.	Deaths.	Natural increment.	Net immigration.
New South Wales.....	8,496	36,506	15,839	20,667	117
Victoria.....	7,625	32,178	15,174	17,004	* 14,567
Queensland.....	2,823	14,017	5,645	8,372	1,941
South Australia.....	2,188	10,012	4,038	5,974	* 3,033
Western Australia.....	1,077	2,782	2,020	762	35,949
Tasmania.....	964	4,608	1,901	2,702	3,667
New Zealand.....	4,843	18,612	6,432	12,180	1,473
Fiji and Rotuma.....	.....	3,969	5,131	† 1,162	.....

* Net emigration.

† Decrease.

The Chinese are gradually leaving Australia in consequence of the poll tax of £100 levied on their immigrants. In 1896 the arrivals in New South Wales were 99 and the departures 450; in Queensland 395 immigrated and 397 returned to China; in Victoria there were 9,377 in 1891, and the number has rapidly diminished since.

Finances.—The budgets of the several colonies and the state of their debts for the fiscal year ending June 30, 1897, in New South Wales, Victoria, Queensland, and South Australia, and March 31, 1897, in Western Australia, Tasmania, New Zealand, and Fiji are shown in the following table :

COLONIES.	Revenue.	Expenditure.	Debt.
New South Wales.....	£9,309,269	£9,330,559	£62,411,373
Victoria.....	6,629,613	6,825,911	46,929,321
Queensland.....	3,613,150	3,604,264	31,873,334
South Australia.....	2,628,049	2,635,860	23,337,200
Western Australia.....	2,440,390	2,362,003	4,732,554
Tasmania.....	797,976	750,244	8,251,778
New Zealand.....	4,798,708	4,506,981	43,552,334
Fiji.....	73,869	73,069	217,896

Of the revenue of New South Wales £2,458,069 came from taxation, £1,953,348 from public lands, £4,599,706 from public services, and £298,146 from miscellaneous sources. Of the total expenditure £1,892,418 went to railways and tramways, £707,073 to posts and telegraphs, £2,285,100 to the service of the public debt, £738,546 to public instruction, and £3,767,422 to other public works and services. The average rate of interest on the debt is 3.71 per cent., including the new loan of £4,000,000 raised in October, 1895. Over four fifths of the debt was expended on the construction of railroads, telegraphs, waterworks, and sewerage, from which a net return of 3.15 per cent. is obtained.

Of the revenue of Victoria £1,733,672 came from customs, which average 13 per cent. on all imports; from excise, £297,030; from the land tax, £127,178; from estate duties, £148,432; from the bank-note duty, £19,317; from stamps, £162,500; from business licenses, £17,378; from tonnage dues, etc., £17,413; from the income tax, £168,088; from railways, £2,394,475; from posts and telegraphs, £516,566; from Crown lands, £411,467; from other sources, £445,165. Of the expenditures £1,893,363 went for interest and expenses of the debt, £1,418,893 for working expenses of the railways, £279,680 for other public works, £588,575 for posts and telegraphs, £160,241 for Crown lands, £571,036 for public instruction and the encouragement of science, £254,726 for charitable institutions, £154,155 for courts of law, £244,054 for police and jails, £94,639

for customs, harbors, etc., £52,620 for mining, £168,575 for defenses, and £659,625 for other purposes.

In Queensland £1,199,187 of the revenue came from customs, £71,676 from excise and export duties, £114,929 from the stamp duty, £57,318 from licenses, £57,284 from the dividend duty, £343,540 from pastoral rents, £170,899 from other rents and sales, £239,335 from posts and telegraphs, and £1,136,861 from railways. The Government still owns 97 per cent. of the total land in the colony, and for the portion already alienated has received £7,725,000, about 22 per cent. of the present assessed value. The principal branches of expenditure in 1897 were £1,263,659 for interest on the debt, £62,858 for endowments to municipalities and divisions, £232,733 for public instruction, £169,040 for the colonial Treasurer's department, £58,893 for the Secretary of Public Lands, £24,033 for the Agricultural Department, £682,646 for operating railroads, and £309,839 for posts and telegraphs. The sum of £1,148,341 was expended from loans, mostly for railroads and other public works.

Customs yielded £996,812 of the revenue of Western Australia in 1896, while the rest was derived mainly from railroads, the postal service, and leases of Crown lands. The income and expenditure have increased nearly threefold in two years.

Of the revenue of Tasmania 59 per cent. is derived from customs duties and taxes, 32 per cent. from railroads, telegraphs, and other services, and 9 per cent. from rents and sales of land; of the expenditure the public works consume 31 per cent. and interest on the debt 44 per cent. The customs revenue amounts to 27.6 per cent. of the total value of imports.

Of the New Zealand revenue £1,818,972 were raised by customs duties, £730,237 by stamps, including postage and telegraph receipts, £1,237,140 came from railways, £105,504 from the land tax, and £109,521 from sales of land. The chief branches of expenditure were £1,709,469 for the public debt, £776,748 for railways, £461,582 for education, £352,386 for the postal and telegraph service, and £189,143 for the constabulary and defense.

In Fiji half the revenue is raised by customs duties, and over a quarter by native taxes, and of the expenditure more than half is paid in salaries.

Commerce and Production.—The following table shows the foreign and intercolonial trade of the several colonies for 1896 :

COLONIES.	Imports.	Total exports.
New South Wales.....	£20,561,510	£23,010,349
Victoria.....	14,554,837	14,196,518
Queensland.....	5,433,271	9,163,735
South Australia.....	7,160,770	7,594,054
Western Australia.....	6,468,557	1,650,226
Tasmania.....	1,192,410	1,473,499
New Zealand.....	7,137,320	9,321,105
Fiji.....	242,492	435,343

New South Wales collected import duties in 1896 amounting to £1,406,969, an average of 6.84 per cent. on all imports. The export of wool was 306,824,358 pounds, valued at £9,897,332. Other exports were coal for £900,264, preserved and frozen meat for £605,973, tallow for £509,666, and hides and skins for £638,398. The export of gold coin was £3,602,986. The production of gold for the year was 296,072 ounces, valued at £1,073,360. The value of silver-lead ore and metal raised was £1,758,933; of copper, £197,814; of tin, £126,000; of coal, £1,125,281. Of the total imports £7,190,115 came from Great Britain, £9,559,860 from Australasian colonies, £625,164 from other British possessions, £1,729,871 from the United States, and £1,456,500 from other foreign countries. Of the total exports £8,375,883 went to Great Britain, £8,374,826 to Australasian

colonies, £520,328 to other British possessions, £2,064,934 to the United States, and £3,674,848 to other foreign countries. The overland trade in 1896 amounted to £3,125,671 for imports and £4,769,738 for exports. The land under tillage in 1897 was 1,659,717 acres, only four fifths of 1 per cent. of the total area of the colony. The total land alienated up to Jan. 1, 1897, was 45,257,468 acres, while 126,307,790 acres were occupied under leases from the Government. The chief products of the soil are wheat, corn, barley, oats, hay, sugar, wine, brandy, and table fruit, mostly oranges. The live stock in 1897 consisted of 510,636 horses, 2,226,168 cattle, 48,318,790 sheep, and 214,581 pigs.

The exports of gold coin and bullion from Victoria in 1897 were £3,299,012 in value. The wool exports were 146,516,567 pounds, valued at £4,959,404, of which half was the product of other colonies, the imports being valued at £2,270,496. The exports of live stock, valued at £337,541, were less than the imports. Exports of breadstuffs were valued at £596,168; refined sugar, £134,392; apparel, £151,127; tallow, £180,855. There are 2,898 manufacturing establishments, employing 42,332 hands. The quantity of gold produced by 32,123 miners in 1896 was 805,087 ounces of the value of £3,220,348. The cultivated area in 1897 was 3,093,000 acres, producing 7,076,000 bushels of wheat, 6,819,000 of oats, 84,000 of barley, 146,000 tons of potatoes, and 449,000 tons of hay. The live stock in 1891 comprised 496,469 horses, 1,782,881 cattle, 12,692,843 sheep, and 282,457 pigs.

The chief exports from Queensland were gold for £2,104,257, silver for £59,192, tin for £46,779, copper for £32,401, wool for £2,984,210, sugar for £863,080, hides and skins for £449,265, tallow for £337,967, preserved and salted meat for £344,318, frozen meat for £491,850, meat extract for £52,758, green fruit for £67,013, and pearl shell for £94,865. Nearly 60 per cent. of the total area of the colony is leased in squatting runs, of which there are 3,218. Half the total area is covered with forests, but little has been done to develop forestry. Only 336,000 acres are cultivated. Water is easily obtained by boring artesian wells, some of which yield millions of gallons a day. There are several coal mines. The product of gold in 1896 was 640,386 ounces. There were 3,000 acres under sugar cane. The chief grain crop is corn.

The exports of wheat from South Australia were valued at £89,515; those of flour at £523,541; wool, £1,229,991; copper, £219,052. The area under tillage in 1897 was 2,584,395 acres, two thirds of it under wheat. The total area passed to private ownership is 9,147,783 acres. The product of wheat fell off from 14,261,000 bushels in 1880 to 2,804,000 in 1896. There were 1,473,216 gallons of wine made in 1897. The live stock numbers 177,078 horses, 337,225 cattle, and 6,323,993 sheep.

The export of gold from Western Australia increased from £421,385 in 1893 to £787,099 in 1894, £579,748 in 1895, and £1,068,808 in 1896. In 1897 there were 674,993 ounces exported, valued at £2,364,976. There were 20,236 men employed in the mines in 1896. The number of mining leases was 8,141. Other exports in 1896 were: Pearl shell, £30,213; pearls, £20,000; sandalwood, £65,800; timber, £116,420; wool, £267,506; skins, £18,111. Agriculture and stock-raising are rapidly increasing. The live stock in 1896 consisted of 57,527 horses, 199,793 cattle, and 2,248,976 sheep.

The chief exports from Tasmania were: Wool, £290,971; gold, £232,180; silver and silver ore, £222,948; green and preserved fruit, £169,705; tin, £159,038; timber and bark, £61,426; hops, £21,665.

The values of the principal exports from New Zealand were: Wool, £4,391,848; frozen meat, £1,-

251,993; gold, £1,041,428; Kauri gum, £431,823; butter and cheese, £411,882; grain and flour, £408,405; hides, skins, and leather, £324,060; tallow, £208,821; timber, £133,511; grass seed, £81,175; preserved meat, £75,661; New Zealand hemp, £32,985; specie, £21,198; bacon and hams, £18,367; live animals, £17,704. The quantity of wool was 129,151,624 pounds; of frozen meat, 1,103,362 hundredweight; of butter, 71,353 hundredweight; of cheese, 71,372 hundredweight; of gold, 263,364 ounces; of Kauri gum, 7,126 tons. The live stock in 1897 consisted of 249,732 horses, 1,138,572 cattle, 19,138,493 sheep, and 209,853 pigs.

Fiji has been a British possession only since 1874. The European settlers cultivate coconuts, sugar cane, bananas, and to a small extent pineapples, peanuts, rice, tea, cotton, and tobacco. They raise cattle and some sheep and Angora goats. The external trade is almost entirely with Australia and Great Britain. The sugar exported in 1896 was 27,334 tons, valued at £339,929; copra, 5,487 tons, valued at £48,950; value of bananas, etc., £18,490; of rum, £10,163.

There was a remarkable efflux of gold from the Australasian colonies in 1897. The total export, chiefly in sovereigns, was £13,500,000, and it was continued in 1898. This movement reduced the coin in the banks by £3,689,000. The imports showed an increase, but apart from gold, the export trade declined. The total production of gold in the seven colonies was 2,899,650 ounces, against 2,378,126 ounces in 1896.

Navigation.—The number of vessels and the tonnage entered and cleared at the ports of the several colonies during 1896 are given in the following table:

COLONIES.	ENTERED.		CLEARED.	
	No.	Tonnage.	No.	Tonnage.
New South Wales.....	3,224	3,080,751	3,206	3,109,009
Victoria.....	1,982	2,276,478	1,900	2,299,752
Queensland.....	649	562,759	645	531,289
South Australia.....	1,289	1,661,124	1,278	1,656,763
Western Australia.....	768	1,105,907	683	1,030,471
Tasmania.....	660	449,323	678	441,538
New Zealand.....	589	614,097	592	627,659
Fiji.....	132	115,470	131	115,586
New Guinea.....	259	15,026	224	13,678

The registered tonnage in New South Wales was 112,634; in Victoria, 95,760; in Queensland, 22,970; in South Australia, 40,477; in Western Australia, 8,113; in Tasmania, 18,871; in New Zealand, 76,556; in Fiji, 492.

Communications.—The number of miles of railroad opened to traffic in 1896 and the mileage of telegraph in the Australasian colonies are shown in the following table:

COLONIES.	Railroads.	TELEGRAPH.	
		Line.	Wire.
New South Wales.....	2,639	12,418	30,820
Victoria.....	3,123	6,947	14,441
Queensland.....	2,430	10,026	18,086
South Australia.....	1,948	5,865	14,290
Western Australia.....	1,180	5,429	6,965
Tasmania.....	475	1,813	3,456
New Zealand.....	2,185	6,286	16,471
Total.....	13,952	48,783	104,488

The number of telegrams sent in New South Wales in 1896 was 2,796,776; receipts, £431,762; net revenue, £159,741. In Queensland the number of messages was 1,035,601; receipts, £71,758. In Tasmania 208,784 internal and 107,669 cable messages were forwarded; net revenue, £19,111. The number of messages dispatched in Victoria was 1,872,649; revenue, £101,928. In Western Australia

997,500 messages were sent, yielding a revenue of £84,247.

In the mining districts of Western Australia railroad connections have been established with Kalgoorli, Kanowna, and Boulder. There is a continuous line of 1,000 miles from Albany, and one of 50 miles leading into the gold fields at Coolgardie. A new railroad from Coolgardie to Menzies was opened on March 22, 1898.

In New Zealand there were 2,285,001 private telegraph messages sent during the year ending March 31, 1897; net revenue, £129,635.

The postal traffic of most of the colonies for 1896 is shown in the following table:

COLONIES.	Letters.	Newspapers.	Packets.	Parcels.	Post cards.
New S. Wales.	69,288,895	45,558,340	15,608,639	506,111	1,013,480
Queensland...	17,590,710	11,655,336	4,966,370	172,571	.....
S. Australia ..	18,765,041	9,551,729	1,894,958	.....	.....
W. Australia ..	10,097,678	6,263,040	2,085,797	.....	.....
Tasmania	7,320,340	4,861,893	2,343,550	.....	231,451
New Zealand ..	29,787,763	13,216,521	12,833,882	.....	1,896,125
Fiji	391,966	310,470	43,925	899	.....

In New South Wales £1,313,595 was paid on 402,677 money orders and £324,646 on postal notes in 1896:

In New Zealand 269,566 money orders were issued.

Defenses.—New South Wales maintains a military force of 621 regulars and 4,826 volunteers, with 2,021 riflemen in the reserve and 580 men in the naval force. The cost of defense in 1897, including the naval establishment and shore fortifications at Sydney, was £224,116. Sydney is a British first-class naval station and the headquarters of the British fleet in Australasia, numbering 12 vessels in 1897. An Australasian naval force of 5 fast cruisers and 2 torpedo gunboats of the most modern design have been built by the British Government, which under a ten years' agreement is maintained by the colonies, which pay also 5 per cent. interest on the cost of construction. The cruisers ("Katoomba," "Tauranga," "Ringarooma," "Mildura," and "Wallaroo") have each a displacement of 2,575 tons and 7,500 horse power. The torpedo gunboats ("Boomerang" and "Karakatta") are of 735 tons and 4,500 horse power. The annual expenditure of New South Wales on naval defense is £42,306; of Victoria, £45,287; of Queensland, £15,519; of South Australia, £6,180. The expenditure of the Imperial Government is £60,300. The land forces of Victoria number 5,015 men, of whom 379 are permanent, 2,987 militia, and 649 volunteers; the naval flotilla consists of the coast-defense cruiser "Cerberus," 5 gunboats, and some torpedo boats, and it is manned by a permanent force of 177 officers and men, with a reserve of 152. In Queensland, where every man is liable for service, a force of 2,800 has been trained, comprising 180 enlisted men, 2,000 militia, and 670 volunteers; the Government has a naval force of 2 gunboats and a torpedo boat and has drilled 5 naval brigades. In South Australia there is a military force of 974 militia and 385 volunteers, and a small cruiser for naval defense. Western Australia has 650 men armed with Martini-Metford rifles and spends £12,600 a year on defenses. Tasmania's volunteers number 499 and the rifle clubs 966. In New Zealand there has been a large local force since the Maori wars. The volunteers number 7,169, the artillery branch 186, the torpedo branch 80, and the police 495; the total available strength of the militia is 130,000.

Australian Federation.—A proposal for a general assembly to legislate on intercolonial questions was discussed as early as 1852. In more recent times the question was agitated until an intercolonial conference adopted a tentative scheme

and the Imperial Parliament passed a bill creating a federal council to which any of the colonies could send delegates for the discussion of intercolonial matters. It first met at Hobart in 1886, and was attended by delegates from Victoria, Queensland, Tasmania, Western Australia, and Fiji. At the next meeting South Australia also was represented. This body devised several measures that were ratified by the colonial legislatures, but its powers were merely deliberative and advisory. In February, 1890, a conference was held at Melbourne in which all the Australasian colonies were represented, and it was there decided to call a national Australasian convention to consider and report upon a scheme for a Federal constitution. This convention met at Sydney on March 2, 1891, and passed resolutions approving the principle of federation. It adopted a draft constitution for the commonwealth of Australasia which, however, proved unsatisfactory to several of the legislatures. A new conference was held by the Premiers of five colonies, who met at Hobart in January, 1895, and took steps resulting in a convention of all the colonies except Queensland, which met first at Adelaide in March, 1897. It was unanimously resolved to establish a Federal Parliament, to consist of a Federal Council, or Senate, and a House of Representatives; also a Federal High Court, which should have jurisdiction as a final court of appeal. The executive authority will reside in a governor-general appointed by the Crown, who shall be guided by his constitutional advisers. It was stipulated that the territory and the powers and privileges of the several states of the federation should remain intact except in so far as they might be surrendered by voluntary acts. The Federal Parliament would have power to impose and to collect and dispose of customs and excise duties, and should control the military and naval forces. Intercourse and trade between the federated states must be free. It was resolved to apply the principle of the popular referendum in the adoption of constitutional amendments. In the Senate all the states shall have equal representation, but this house shall have no power to amend money bills.

The Federal Convention, which met in Adelaide on March 22, 1897, adjourned a few months later to allow the Premiers of the colonies to take part in the festivities of the Queen's jubilee in England, met again in September at Sydney, and after a short session again adjourned at the request of the Queensland Government in order that opportunity be given for that colony to join in the deliberations, assembled for the third and final session at Melbourne on Jan. 20, 1898. It was found that Queensland was not yet able to take part in the framing of the commonwealth bill. Nevertheless it was resolved to complete the work without further adjournment, and after a thorough and animated discussion of the details of the measure, developing considerable friction, which threatened at times to result in rupture, during which the convention amended or rescinded some of its former decisions, the commonwealth bill was finally adopted on March 16, and on the following day the convention adjourned. The bill was based on the scheme that was drawn up in the Sydney convention of 1891, many of the members of which served a second time in this convention, though Sir Henry Parkes, Sir Samuel Griffiths, and other leaders of the early federation movement were absent. The modifications embodied in the resulting bill have been the subjects of constant discussion during the intervening seven years. The Sydney bill provided that members of the State Council, or upper house, should be elected by the parliaments of the several colonies. The new bill provides for the election of

both houses by popular suffrage. In colonies where female suffrage has been adopted women will be entitled to vote for the federal as well as for the colonial legislators. In the State Council each colony will have the same number of representatives, whatever its population, while in the lower house representation will be in proportion to population. Equal representation in the Senate was the condition on which the smaller colonies insisted before they would consent to enter into the federation. In return the larger colonies demanded that the upper house should have no power to amend money bills. As a compromise it was finally agreed that the Senate may suggest amendments to financial measures. The State Council, moreover, retains the power of veto. Another safeguard for the rights of the smaller states is that all powers that are not explicitly vested in the commonwealth shall be retained by the individual states, reversing the Canadian system of federation, which leaves to the Dominion all authority not definitely reserved to the individual colonies. One of the main difficulties encountered in the Federal Convention was to provide for the possibility of a deadlock caused by disagreement between the two houses of the Federal Legislature, a constitutional problem that has blocked the wheels of legislation and given rise to unpleasant conflicts in some of the colonies of Australia. After a long debate and a revision of the first conclusion it was in the end decided that in the event of a deadlock, after the lower house has passed a measure twice over the Senate's veto, both houses shall be dissolved simultaneously; in case the newly elected houses disagree they shall meet together in a joint session and vote on the bill in question, which shall be carried or rejected by a three-fifths majority of both houses voting together. The problem of federal finance was left for its final adjustment to be solved in the light of experience. It was generally agreed that the customs and excise revenue of the colonies was to be surrendered for the purposes of federal expenditure, and that the surplus remaining after all federal requirements were satisfied should be returned to the several colonies. The proportion in which each should share in this surplus presented practical difficulties. A motion to restrict federal expenditure to one fourth of the revenue collected was carried, but afterward was rescinded. To redistribute the surplus in proportion to population would be advantageous to Tasmania, and would disturb but little the finances of Victoria and South Australia, but would be most unjust to Western Australia, which raises by indirect taxation more than three times as much revenue *per capita* as the other colonies. Equal tariff rates would place an undue share of the burden on New South Wales. The question of determining what is the fair share to be paid by each colony and what the actual contribution obtained from it by the tariff involved the whole subject of the financial relations of the several colonies. It was referred to a special committee on finance, and the recommendations of the committee were, with slight modifications, incorporated in the bill. They are to the effect that a uniform tariff shall be established for the federated colonies within two years, and that within the limits of this tariff trade shall be absolutely free. A system of careful and detailed bookkeeping and statistics shall be maintained for five years, by means of which it is hoped that the just contribution of each of the colonies to the general trade and its just share in the general expenditure of the commonwealth will be ascertained, and the Federal Parliament will then be able to decide on the proportion of the surplus of the customs revenue that each state is entitled to receive. Many other points

were discussed, but the prevailing idea was that it would be unwise to load down the measure with specific legislation. The commonwealth bill dealt rather with constitutional principles and essential questions, and contained compromises and concessions in which the representatives of the small colonies and those of the large, the exponents of protection, and the free traders found it hard to acquiesce. There was a general understanding that in case of the commonwealth bill becoming law an arrangement would be made for the admission of Queensland to the federation. The parliamentary representatives of the central division of Queensland petitioned the Federal Convention to admit central and northern Queensland as separate states, irrespective of southern Queensland. It was not necessary to initiate the scheme that all the colonies should unite to form the federation. The enabling bill enacted by the British Parliament provided that three or more of the colonies might unite in a federation, which the other colonies might join from time to time as their interests should dictate and their people decide. The enabling bill left the final decision to the electors of the several colonies, and prescribed that in each colony a substantial minimum vote should be required so as to preclude the possibility of a misinterpretation of the popular desire or the possibility of a change except by a deliberate resolution of the people. This minimum was fixed in some of the colonies at so high a figure that the advocates of federation anticipated great difficulty in obtaining the prescribed majority. Thus, in Victoria a minimum vote of 50,000 was required among 252,000 qualified electors; in New South Wales, with a total of 293,000, the minimum was increased from 50,000 to 80,000 votes.

The question of referring legislation on old-age pensions to the Federal Parliament was at once decided in the negative by the convention. A spirited controversy between the representatives of South Australia and New South Wales grew out of the proposition to leave to the Federal Parliament the exclusive control of intercolonial rivers. The South Australian delegates, having special regard to the tributaries of the river Murray, contended that the navigation of the lower reaches of a river ought not to be impeded by the withdrawal of the upper waters for irrigation purposes. The Government of New South Wales conceded to the commonwealth the control of the navigation of the Murray, but claimed the free use of the water of the tributaries for irrigation purposes, having sold lands with the understanding that the water should be available to settlers. The rivers were regarded as the most valuable part of the colony, without the use of which for irrigation a large portion of the surface must remain a sheep run instead of being permanently settled. It was resolved that if Great Britain contributed a third of the cost of the projected Pacific cable, and Canada a third, then New South Wales, Victoria, Queensland, and Tasmania should find the remaining third. The convention gave the interests of navigation precedence over irrigation. It was decided against the protest of Queensland and Western Australia to give the federation exclusive power to legislate concerning aliens, the restriction of immigration to remain a question for the individual states until federal legislation shall have been enacted on the subject. It was resolved to pass an act similar to the law of Natal restricting the immigration of colored races. A clause was adopted declaring that the commonwealth shall not prohibit any religion nor impose any religious test for office. The federation, by a clause which was first made mandatory, then merely permissive, can assume and consolidate the debts of all the colonies. The convention could not see a way, in view of the

exigencies of colonial finance, to advise a reduction in the rates of postage to Great Britain in conformity with the recent action of the British Government. A uniform customs tariff is to be adopted within two years from the establishment of the commonwealth, with intercolonial free trade immediately thereafter, exception being made of goods imported into a free-trade colony before the imposition of the federal tariff, which must pay the federal duties if re-exported within two years to other colonies.

The Victorian delegates desired to preserve to the states the right to grant bonuses for the encouragement of their industries, but the convention confined such power to the commonwealth. Preferential treatment of the produce and manufactures of the United Kingdom was promised in a resolution and, in default of a federal tariff, recommended to the individual states. An interstate commission will be constituted to execute the provisions of the Constitution relating to trade and commerce. From New South Wales came a vigorous protest against empowering the Federal Parliament to prohibit differential railway rates, in consequence of which it was decided to give to an interstate railway commission the power to sanction special rates that may be deemed necessary for the development of territory. The powers of the Federal High Court include the decision of disputes between individual states and between a state and the commonwealth. It will also decide appeals from the state courts. It was at first decided that the Federal Parliament should alone have power to make exceptions and to allow appeals to the Privy Council in England, which should be sanctioned in cases where the interests of the commonwealth, or of one of the states, or of other parts of the Queen's dominions are concerned. The abolition of the private right to appeal to the highest imperial tribunal roused such opposition that the clause was amended so as to permit such appeal from the Supreme Court conditionally on obtaining the consent of the Privy Council itself. From the Federal High Court no appeal would be conceded. To enact an amendment to the Constitution an absolute majority of both houses of Parliament is requisite, and in addition to that a majority vote of the people of each state. It was resolved that all the colonies except South Australia should continue their contributions to the auxiliary squadron. Joint action of the colonies in supporting antarctic exploration was disapproved, also a joint exhibit at the Paris Exhibition. France was urged to prohibit the sale of arms in the New Hebrides; if this were not done, Great Britain ought to remove her prohibition. The last resolution adopted presented a request for permission to mint silver.

An exciting campaign for and against the bill was carried on in all the colonies. The referendum was taken on June 3 in three colonies. In Victoria there were 100,520 votes for and 22,099 against the bill; in Tasmania, 13,496 to 2,900. In New South Wales, where the contest was heated, 70,990 voters favored federation, while 65,619 opposed the scheme embodied in the bill. The majority thus fell short of the statutory minimum, and left the question to be decided by another election. In Western Australia a popular vote could not be taken until the colonial Parliament first voted to approve the bill as finally adopted in the convention. South Australia held its election on June 4, and decided in favor of the bill by 25,659 votes to 15,121.

G. H. Reid, the Premier of New South Wales, proposed a conference of Australian Premiers to consider a modification of the commonwealth bill, with a view of making it acceptable to New South Wales. Sir George Turner, of Victoria, agreed on

the understanding that the bill as amended must be accepted by the electors of New South Wales before being submitted to the people of the other colonies. Charles C. Kingston, in behalf of South Australia, and Sir E. Braddon, speaking for Tasmania, declined to go behind the backs of the people to alter the work which their vote had approved. The Queensland Premier accepted the invitation to a conference; Sir John Forrest, the Premier of Western Australia, declined. The New South Wales Government proposed to solve deadlocks by making a majority instead of three fifths effective in joint sessions of the Federal Parliament; to recast the financial proposals; to take from the Senate the power to amend money bills; to remodel appellate jurisdiction; to adopt the Canadian plan for the seat of government; and to establish safeguards for the territorial rights of the states, including definite provisions regarding internal waters.

New South Wales.—The Parliament consists of a Legislative Council of 65 members, who are appointed for life, and a Legislative Assembly of 125 members elected by universal male suffrage. The duration of Parliament is not more than three years. The Governor is Viscount Hampden. The Cabinet in the beginning of 1898 was as follows: Premier, Treasurer, and Minister for Railways, George Houston Reid; Chief Secretary, James Nixon Brunker; Attorney-General, John Henry Want; Secretary for Lands, Joseph Hector Carruthers; Secretary for Public Works, James Henry Young; Minister of Public Instruction and of Industry and Labor, Jacob Garrard; Minister of Justice, Albert John Gould; Postmaster-General, Joseph Cook; Secretary for Mines and Agriculture, Sydney Smith; Vice-President of the Executive Council and Representative of the Government in the Legislative Council, Andrew Garran.

The democratic Premier announced in January, 1898, a plan for reforming the Legislative Council by requiring a fifth of its members to retire every five years. Large areas have been withdrawn from pastoral lessees to make additional lands available for occupation by farmers. The early expiration of Parliament caused the ministry to limit its legislative programme to measures already in an advanced stage. Such were a bill for restricting immigration and one dealing with the value of improvements on Crown lands. Agricultural returns showed an increase in two years of 35 per cent. in the area under cultivation; in the wheat area, 66 per cent. In dairy farming the progress was not less astonishing, while in mining and manufacturing there was a marked expansion.

Parliament was prorogued on July 9 and new elections were held on July 27. The principal question was that of federation, which the leader of the Opposition, Mr. Barton, believed would be defeated by Mr. Reid's proposal of amendments to the federation bill that the other colonies were unlikely to accept, such as a simple majority decision in joint session or a national referendum in case of a deadlock between the houses, and a stipulation that the federal capital be located in New South Wales. The Protectionists joined the Barton party, while the Labor men coalesced with the Ministerialists. The elections gave 63 seats to the Ministerialists, 57 to the Federalists, and 5 to the Independents, who were allies of the Federalists. In the last Parliament the Government party numbered 81 and the Opposition 44. The Labor wing of the Ministerial party, which advocates the popular referendum and initiative, old-age pensions, a state bank, and local government on a residential instead of on a rate-paying basis, returned 30 members, the same as in the last house. Parliament was opened on Aug. 16. The defeat of Ministers Gould, Garrard, and Smith in

the elections left three vacancies in the Cabinet, which were filled by the appointment of Mr. Lee as Minister of Justice, Mr. Hague as Minister of Education, and Mr. Parker as Postmaster-General.

Victoria.—The Legislative Council is composed of 48 members, of whom one third retire every two years; they are elected by limited suffrage. The Legislative Assembly has 95 members, elected for three years by universal male suffrage.

The Governor is Lord Brassey, appointed in 1895. The Cabinet in the beginning of 1898 was composed as follows: Premier and Treasurer, Sir George Turner; Chief Secretary and Minister of Education, A. J. Peacock; Attorney-General, Isaac Isaacs; Solicitor-General, Sir Henry Cuthbert; Commissioner of Trade and Customs, President of the Board of Land and Works, and Commissioner of Crown Lands and Survey, R. W. Best; Postmaster-General, J. G. Duffy; Minister of Defense, W. McCulloch; Minister of Mines and Water Supply, H. Foster; Minister of Agriculture and Commissioner of Public Works, J. W. Taverner; Minister of Railways and Minister of Public Health, H. R. Williams; without portfolios, A. McLean and S. Williamson.

Abundant rains arrived in June, 1898, to end a drought in the south of Australia, which was accompanied by the severest heat felt in forty years, and by destructive bush fires in Victoria and Tasmania. The Victorian Government has plans for the irrigation of the country on a vast scale, for the erection of public cold-storage warehouses for meat and dairy products, and for subsidizing a company to develop the wine industry by establishing central vaults for blending and storing wines. British capitalists complain because they have to pay an income tax in Australia as well as in England on the interest derived from Australian investments. Sir George Turner replied that the colonial tax was legitimate, and that the English Government should cease to levy a double tax.

Queensland.—The Legislative Council consists of 41 nominated life members, the Legislative Assembly of 72 members elected for three years. The Governor is Lord Lamington, appointed in 1895. The Executive Council was composed in the beginning of 1898 as follows: Premier, Vice-President of the Executive Council, Chief Secretary, and Treasurer, Sir Hugh Muir Nelson; Secretary for Agriculture, A. J. Thynne; Minister for Lands, J. F. G. Foxton; Postmaster-General and Secretary for Railroads, J. R. Dickson; Secretary for Mines, Robert Philp; Secretary for Public Instruction and Secretary for Public Works, D. H. Dalrymple; Home Secretary, Sir H. Tozer; Attorney-General, T. J. Byrnes; without portfolio, W. H. Wilson and A. H. Barlow.

In Queensland agriculture is advancing rapidly. The acreage of sugar cane in the north is increasing, but grain cultivation in the temperate zone shows the most remarkable development. The acreage of wheat increased 50 per cent. in 1897. The Government in 1898 threw open for agricultural settlement 1,000,000 acres more of pastoral lands. Sir H. M. Nelson in March resigned the premiership to accept the presidency of the Legislative Council. The Cabinet was reorganized with Mr. Byrnes as Premier.

South Australia.—The Legislative Council has 24 members, a third of whom are replaced every three years by popular vote. The House of Assembly consists of 54 members elected for three years. In 1894 the franchise was extended to women. There were 138,344 registered voters in 1896.

The Governor is Sir Thomas Fowell Buxton, appointed in 1895. The ministry was composed at the beginning of 1898 as follows: Premier and Attorney-General, C. C. Kingston; Chief Secretary,

J. V. O'Loughlin; Treasurer, F. W. Holder; Commissioner of Crown Lands, L. O'Loughlin; Commissioner of Public Works, J. G. Jenkins; Minister of Education and of Agriculture, J. A. Cockburn.

Western Australia.—The Legislative Council consists of 24 members elected for six years. The Legislative Assembly has 44 members, who serve for four years. The Governor is Col. Sir Gerard Smith, appointed in 1895. The Cabinet in the beginning of 1898 was composed of the following members: Premier, Treasurer, and Colonial Secretary, Sir John Forrest; Minister for Mines, E. H. Wittenoom; Commissioner for Railways and Director of Public Works, F. H. Piesse; Commissioner of Lands, George Throssell; Minister of Education, Henry Bruce Lefroy; Attorney-General, Richard William Pennefather.

The water scheme for supplying the mines, which the energetic Premier is determined to carry out, will cost £2,250,000 and £300,000 yearly to keep up, but will pay for itself within twenty years. The gold production of the colony is already greater than that of Victoria and Queensland combined, and the annual trade amounts to £10,000,000. A decree of the Government prohibiting diggers from working alluvial deposits below 10 feet from the surface on land leased from mining companies created such indignation among the miners that they mobbed Sir John Forrest when he visited Kalgoorlie in March. Mr. Wittenoom resigned the Ministry of Mines to succeed Sir Malcolm Fraser as agent general in London, and Mr. Lefroy was transferred on April 29 to the vacant ministry, while George Randell became Minister of Education and Posts and Telegraphs and at the same time Colonial Secretary, relieving Sir John Forrest of the work of this office. The new post of Minister for the Aborigines was given to H. L. Prinsep. When the Legislature met on June 16 a bill was presented amending the tariff so as to give preferential treatment to British goods.

Tasmania.—There is an elective Legislative Council of 18 members. The House of Assembly has 37 members elected under a low property and income qualification for three years. The electors for the Council form 4.43 per cent. of the total population and those for the Assembly 18.26 per cent. The Governor at the beginning of 1898 was Viscount Gormanstown, appointed in 1898.

The ministry was composed in the beginning of 1898 of the following members: Premier, Sir E. N. C. Braddon; Chief Secretary, W. Moore; Treasurer, Sir P. O. Fysh; Attorney-General, D. C. Urquhart; Minister of Lands and Works, A. T. Pillinger; without portfolio, Thomas Reibey.

New Zealand.—The Legislative Council contains 46 members, nominated for life previous to Sept. 17, 1891, and since then for seven years, and the House of Representatives has 74 members, elected for the duration of Parliament by the votes of all citizens, male and female. The Maori community is represented by 4 members. The registered vote for the 70 European members in 1896 was 339,230, of which number 196,925 were men and 142,305 women, and for the native members 13,008 of both sexes.

The Governor is the Earl of Ranfurly, appointed Aug. 10, 1897. The Cabinet in the beginning of 1898 was composed as follows: Premier, Colonial Treasurer, Postmaster-General and Electric Telegraph Commissioner, Minister of Native Affairs, and Minister of Labor, R. J. Seddon; Acting Colonial Secretary, Commissioner of Stamp Duties, and Representative of the Native Race in the Executive Council, J. Carroll; Minister of Justice, Minister of Industry and Commerce, and Minister of Defense, T. Thompson; Minister of Lands, Minister of

Agriculture, Commissioner of Forests, and Minister in Charge of Advances to Settlers, J. Mackenzie; Minister of Public Works, Minister of Marine, and Minister in Charge of Public Printing Office, W. Hall-Jones; Minister of Railways and Minister of Mines, A. J. Cadman; Minister of Education and Immigration and Minister in Charge of Hospitals and Charitable Aid, W. C. Walker.

While the public finances of the Australian colonies show a gratifying recovery, achieved by the aid of strenuous retrenchments, the balance sheet of New Zealand is still more favorable. There was a large surplus at the end of the financial year 1898, and the Government contemplated, after long abstention from borrowing, the issue of a new loan of £2,000,000 to be expended on railroads and irrigation for the more speedy development of the country. Customs, stamps, railroads, post-office, land, income, excise, and territorial revenue all exceeded the estimates. The Government proposes to establish an accident and insurance department. Maori lands have lately been sold to whites by authority of the colonial Parliament, but the Premier in the session that began on June 24, 1898, carried a bill stopping the sales and permitting only leases granted by a board containing representatives of both races, the rent going to native owners, thereby preventing the Maoris from becoming destitute and landless. The imposition of a dog tax of 10s., designed to accustom the Maoris to direct taxation and reduce the number of dogs kept by them, which were a danger to sheep and cattle, occasioned an insurrection in the remote northern district of the Hausaus. This was quickly suppressed in May by an artillery detachment with Maxims.

In the parliamentary session that began on June 24, 1898, the Government brought forward bills increasing the volunteer corps and providing them with magazine rifles and other improved armaments, establishing old-age pensions, putting the municipal franchise on a more equitable basis, abolishing life tenure in the Legislative Council, and remedying the electoral system. The old-age-pension scheme, which had failed to pass in the previous session, was approved by the House of Representatives in September.

Fiji.—The Governor, who is also High Commissioner for the Western Pacific, is Sir G. T. M. O'Brien. The Legislative Council consists of 6 official and 6 non-official nominated members. Twelve of the 16 provinces are administered by native chiefs and 3 of them and Rotuma by European commissioners.

British New Guinea.—The southeastern part of New Guinea, with the D'Entrecasteaux and Louisiade Islands, was annexed to the British Empire in 1887. The area is 88,460 square miles and the population, which includes 250 Europeans, about 350,000. The cost of administration, about £15,000 a year, is borne in equal shares by Queensland, Victoria, and New South Wales. The Lieutenant Governor is Sir William MacGregor. The revenue raised on the island, chiefly from customs duties, was £6,547 in 1896. The island is rich in cocoa and sago palms, sandalwood, ebony, gums, rattan, and other forest produce. Trepang, copra, pearl shell, pearls, sandalwood, and gold are the chief exports, the total value of which in 1896 was £19,401, exclusive of pearls and of gold, which is dug by about 60 Australian miners and numerous natives in Woodlark and the Louisiade Islands and on the coast.

The governments of Queensland, New South Wales, and Victoria agreed in January, 1898, to continue the present arrangement in regard to British New Guinea for four years longer, at the

end of which time the territory is expected to be self-supporting. The British Secretary of the Colonies contemplated departing from the policy of preserving all the land for the natives, which the discovery of gold makes it more difficult to pursue, when a group of English capitalists, the Somers-Vine-Lowles syndicate, applied for a concession of a tract containing 250,000 acres for the purpose of cultivating rubber and other products or for mining. When Mr. Chamberlain agreed to make the sale, subject to the approval of the Queensland Legislature, the Premiers of the three colonies that support the administration of New Guinea entered a protest, which blocked the transaction.

The action of the Queensland Government in approving the cession of land to the syndicate gave rise to serious objections on the part of the governments of New South Wales and Victoria. It gave incalculable advantages to a speculative syndicate of Englishmen with small capital and was likely to prove detrimental to Australian explorers and gold seekers. At a conference of colonial Premiers in August the British Government was requested to revoke the land grant, for which Sir William MacGregor assumed all the responsibility. The New South Wales and Victoria governments agreed to continue their contributions for the support of the administration of New Guinea only on condition that their representations regarding the concession should be heeded.

AUSTRIA-HUNGARY, a dual monarchy in central Europe, constituted by the fundamental law of Dec. 21, 1867, and composed of the Empire of Austria and the Kingdom of Hungary, two inseparable constitutional monarchies, declared to be hereditary in the male line of the house of Hapsburg and in the female line in default of male heirs. Legislative authority in matters common to both monarchies—viz., foreign affairs, the army and navy, common finances, indirect taxation, the coinage, railroads in which both monarchies are interested, and the administration of the occupied provinces of Turkey—is committed to the Delegations, elected from among their members by the legislative bodies of the two halves of the empire, composed of 20 members from the upper and 40 from the lower chamber of each parliament. The Delegations deliberate and vote separately on every question, and when they come to different decisions they reach a final conclusion by a joint ballot without debate.

The reigning Emperor of Austria and King of Hungary is Franz Josef I, born Aug. 18, 1830, and proclaimed Emperor on Dec. 2, 1848, upon the abdication of his uncle, Ferdinand I. He assumed the crown of St. Stephen upon the restoration of the Hungarian Constitution, June, 8, 1867. The heir presumptive is Archduke Franz Ferdinand d'Este, born Dec. 18, 1863, son of the Archduke Karl Ludwig and nephew of the Emperor.

The common ministers, heads of the three executive departments for common affairs, were in the beginning of 1898: Minister of Foreign Affairs and of the Imperial House for the Whole Monarchy, Count Agenor Maria Adam Goluchowski; Minister of War, Gen. Edmund, Edler von Krieghammer; Minister of Common Finance, Benjamin de Kallay.

Area and Population.—The area of the Austro-Hungarian dominions, not including the occupied Turkish provinces of Bosnia and Herzegovina, is 240,942 square miles, and the total population on Dec. 31, 1890, was 41,358,886.

The area of Austria proper is 115,903 square miles, and the population at the last census was 23,895,413, consisting of 11,689,129 males and 12,206,284 females. Divided on the basis of language, there were 8,461,580 German Austrians, 5,472,871 Bohemians, Moravians, and Slovaks, 3,719,233

Poles, 3,105,221 Ruthenians, 1,176,672 Slovenes, 644,926 Servians and Croats, 675,307 Italians and Ladins, 209,110 Roumanians, and 8,139 Magyars. There were 238,647 Hungarian citizens and 193,710 foreigners, of whom 103,433 were Germans, 46,312 Italians, 18,149 Russians, 6,777 Swiss, 2,726 French, 2,384 Turks, 2,261 British, and 1,729 Americans. The population of the Austrian dominions at the end of 1895 was estimated at 24,977,439, of whom 12,245,114 were of the male and 12,732,325 of the female sex. Vienna, the capital, had 1,364,548 inhabitants in 1890; Prague, 184,109; Trieste, 158,344. The number of marriages in 1896 was 198,554; of births, 974,903; of deaths, 657,153; excess of births, 290,064.

Hungary has an area of 125,089 square miles, including Croatia and Slavonia. The population in 1890 was 17,463,473, consisting of 8,667,971 males and 8,795,502 females. In respect of race as indicated by language there were 7,426,730 Magyars, 2,604,260 Servians and Croats, 2,591,905 Roumanians, 2,107,279 Germans, 1,910,279 Bohemians and Slovaks, 383,392 Ruthenians, 94,679 Slovenes, 82,256 gypsies, and 94,679 others. The population of Buda-Pesth, the Hungarian capital, was 506,384. The number of marriages in 1896 was 147,477; of births, 760,854; of deaths, 657,153; excess of births, 212,562.

The emigration from Austria-Hungary in 1895 was 66,101, of which number 50,951 went to North America, 10,511 to Brazil, 549 to the Argentine Republic, and 3,591 to other countries.

The Common Budget.—The budget for common affairs for the financial year 1898 makes the total expenditure 161,185,025 florins, of which 53,598,890 florins are derived from customs, 2,660,372 florins from the Army and Navy Department, and 138,905 florins from other departments, 71,883,785 florins are Austria's quota, 30,807,336 florins Hungary's quota, and 2,095,737 florins Hungary's 2 per cent. Of the expenditure 4,067,500 florins are for ordinary and 77,400 florins for extraordinary expenses of the Ministry of Foreign Affairs, 128,194,798 florins for ordinary and 11,980,407 florins for extraordinary expenses of the Ministry of War for the army, 10,663,060 florins for ordinary and 3,918,200 florins for extraordinary naval expenses of the Ministry of War, 2,134,307 florins for ordinary and 11,900 florins for extraordinary expenses of the Ministry of Finance, and 137,458 florins for the Board of Control.

The supplementary credits of the army and navy for 1898 amount to 30,646,030 florins. In the estimates for 1899 the expenditure for the Ministry of Foreign Affairs is reckoned at 4,274,000 florins; army, 143,685,251 florins; navy, 16,941,260 florins; Ministry of Finance and Pension fund, 2,137,184 florins; Board of Control, 138,045 florins. The total expenditure is set down at 167,175,940 florins, inclusive of 2,797,558 florins of departmental revenues. The receipts from customs are estimated at 59,589,530 florins; the surplus, after deducting expenses of the *régie*, 57,139,530 florins. The extraordinary credit for the military occupation of Bosnia is 3,479,000 florins. Deducting the customs receipts from the net expenditure of 164,378,382 florins, there remains the sum of 107,238,852 florins to be apportioned between Austria and Hungary in accordance with the quota to be fixed by law.

The Public Debt.—The general debt of the whole monarchy amounted in 1897 to 2,762,752,000 florins: the annual charge is 126,799,554 florins, of which Austria pays 96,488,601 and Hungary 30,310,953 florins. The common floating debt amounted on Jan. 1, 1897, to 138,949,109 florins. Austria's special debt amounted to 1,490,373,000 florins, costing 71,649,258 florins a year. Hungary has a separate debt amounting to 2,177,685 florins.

The Army.—Austrians and Hungarians are alike liable for service in the army, in which the term is three years of active service and seven years in the reserve. Those not drawn for the active army or navy are enrolled in the supplementary reserve or in the national Austrian or Hungarian Landwehr, in which the period of service is twelve years. Soldiers whose time has expired in the army are also inscribed for two years in the Landwehr, which in time of peace is only called out for drill and in war can not be mobilized without the express command of the Emperor-King. Young men who have received an academical education are required to serve a year only either in the army or in the Landwehr. The army is organized in 15 corps, mostly of 2 infantry divisions of 2 brigades, 1 brigade of cavalry and 1 of artillery. The annual contingent for the army is 60,389 Austrians and 42,711 Hungarians; for the Austrian Landwehr, 10,500; for the Hungarian Honved, 12,500.

The peace footing of the Austro-Hungarian army in 1897 was as follows: 3,738 officers and 3,843 men attached to the staff; 79 officers and 2,854 men in the sanitary troops; 1,536 officers and 7,680 men in the establishments; 9,454 officers and 177,109 men in the infantry; 1,874 officers and 45,506 men in the cavalry; 1,636 officers and 28,152 men in the field artillery; 412 officers and 7,760 men in the fortress artillery; 575 officers and 9,918 men in the pioneers; 393 officers and 8,253 men in the train; 2,168 infantry officers and 20,657 men and 196 cavalry officers and 1,899 men in the Austrian Landwehr; and 2,132 infantry officers and 21,232 men and 390 cavalry officers and 4,251 men in the Hungarian Honved; total, 24,583 officers and 334,114 men, 358,697 in all, with 47,149 horses and 1,048 field pieces.

The war footing is 45,238 officers and 1,826,940 men, with 281,886 horses and 1,864 field pieces. The army is kept in a state of readiness and high military efficiency. In 1898 an extensive acquisition of new arms and war material was begun.

The Navy.—The navy, designed mainly for coast defense, is kept in a high state of efficiency. It comprises 1 second-class and 8 third-class battleships, 8 vessels for port defense, including 4 monitors in the Danube, 3 second-class and 14 smaller cruisers, 12 gunboats, and of torpedo craft 26 of the first, 5 of the second, and 26 of the third class. A ram cruiser of 6,100 tons, with 10.6 feet of armor over the vital parts, 12,000 horse power, giving a speed of 20 knots, and an armament of 2 9.4-inch and 8 5.9-inch quick-firing guns, besides 18 smaller ones, not including machine guns, is nearly completed at Trieste, where also a torpedo cruiser has been built. The most modern of the effective vessels are the "Monarch," "Wien," and "Buda-Pesth," of 5,550 tons, 10.6-inch Harveized armor, a speed of 17 knots, developed by engines of 8,500 horse power, carrying 4 9.4-inch guns in two turrets and 6 5.9-inch and 14 small quick firers.

Commerce and Production.—Austria in 1896 produced 15,507,000 hectolitres of wheat, 19,318,000 of barley, 36,727,000 of oats, 27,074,000 of rye, and 6,164,000 of corn, 88,180,000 quintals of potatoes, 59,348,000 of sugar beets and 24,426,000 of other beets, 3,485,000 hectolitres of wine, 66,000 quintals of tobacco, 100,000 of hops, 221,000 of hemp, and 85,000 of flax. Hungary produced 56,349,000 hectolitres of wheat, 21,448,000 of barley, 26,341,000 of oats, 18,120,000 of rye, and 51,620,000 of maize, and 35,644,000 quintals of potatoes, 15,469,000 of sugar beets and 31,159,000 of other beets. Of silk cocoons 1,499,845 kilogrammes were produced in Hungary and 2,027,423 in Austria in 1895. The values of the principal mineral products of Austria in 1895 were: Coal, 34,104,000 florins; lignite, 34,923,000 florins;

raw iron, 29,771,000 florins. The total value of mining products was 84,181,329 florins; that of farnace products, 85,262,727 florins. The chief mineral products of Hungary were coal valued at 5,640,000 florins, lignite valued at 11,218,000 florins, and iron valued at 12,490,000 florins.

The total value of the imports in the special commerce of the Austro-Hungarian customs union for 1896 was 705,800,000 florins, and of the exports 774,000,000 florins. The principal imports were cotton of the value of 57,389,000 florins; wool, 40,847,000 florins; coffee, 31,886,000 florins; coal, 31,391,000 florins; tobacco, 27,611,000 florins; woolen yarn, 23,612,000 florins; machinery, 21,342,000 florins; leather, 18,983,000 florins; hides and skins, 18,325,000 florins; metals, 17,087,000 florins; silk goods, 14,403,000 florins; eggs, 13,027,000 florins; wine, 11,763,000 florins; cereals, 11,684,000 florins; woolen goods, 11,303,000 florins; cotton yarn, 10,732,000 florins; cattle, 9,487,000 florins. The principal exports were sugar of the value of 75,137,000 florins; cereals, 41,977,000 florins; eggs, 39,902,000 florins; lumber, 31,515,000 florins; lignite, 24,321,000 florins; glassware, 24,294,000 florins; horses, 23,841,000 florins; cattle, 22,997,000 florins; leather gloves, 22,791,000 florins; timber, 21,996,000 florins; malt, 20,510,000 florins; woolen goods, 18,599,000 florins; hides and skins, 14,830,000 florins; barrel staves, 11,402,000 florins; feathers, 10,296,000 florins; shoes, 10,020,000 florins; beer, 7,981,000 florins; wine, 4,757,000 florins.

The imports of coin and bullion in 1896 were 68,806,845 florins in value, and the exports 42,534,439.

The extent of the trade of Austria-Hungary with particular countries is shown in the following table, values being given in florins:

COUNTRIES.	Imports.	Exports.
Germany.....	257,446,000	402,861,000
Great Britain.....	73,492,000	73,617,000
Italy.....	47,178,000	60,116,000
Russia.....	44,124,000	27,633,000
United States.....	42,403,000	17,292,000
Switzerland.....	22,125,000	35,047,000
France.....	24,671,000	29,589,000
British India.....	42,732,000	6,901,000
Turkey.....	16,166,000	24,845,000
Roumania.....	10,570,000	26,270,000
Brazil.....	27,351,000	2,585,000
Servia.....	15,349,000	10,094,000
Belgium.....	12,815,000	7,915,000
Netherlands.....	10,300,000	9,657,000
Greece.....	9,242,000	4,148,000
Egypt.....	5,803,000	9,485,000

The imports of Hungary alone were valued in 1896 at 548,975,000 florins, and the exports from Hungary at 544,704,000. Of the imports 444,679,000 florins came from Austria, and of the exports 417,092,000 florins went to Austria. Germany furnished 29,042,000 florins of imports and took 53,905,000 florins of exports. The rest of the trade was with Servia, Great Britain, France, Italy, and Switzerland. Of the total value of the imports 79 per cent. consisted of manufactured articles, and of the exports 38 per cent. Some of the chief imports were cotton goods for 66,307,000 florins, woolen goods for 44,317,000 florins, clothing for 19,001,000 florins, silk goods for 13,273,000 florins, wine in casks for 14,543,000 florins, refined sugar for 10,655,000 florins, and cotton yarn for 8,506,000 florins. The chief exports were wheat, barley, and maize for 99,647,000 florins, flour for 81,596,000 florins, live animals for 69,902,000 florins, wine in casks for 19,588,000 florins, cask staves for 10,312,000 florins, eggs for 9,431,000 florins, and wool for 8,604,000 florins.

Communications.—The railroads of Austria in 1896 had a total length of 10,240 miles, the Hungarian lines a length of 8,375 miles, and in Bosnia

and Herzegovina there were 480 miles; total, 19,095 miles. The capital expended on 18,317 miles of Austro-Hungarian railroads up to 1895 was 2,628,344,000 florins. Of the Austrian lines 4,533 miles belong to the state, and of the companies' lines 933 miles were operated by the state and 4,774 miles by the companies. The total receipts from 106,443,000 passengers and 93,879,000 tons of freight carried in 1895 were 89,586,000 florins, and the operating expenses were 145,842,000 florins. In Hungary 9,299 miles were state lines, 3,051 miles companies' lines leased to the state, and 6,265 miles were both owned and operated by companies. The receipts from all the lines in 1893 were 102,591,000 florins, and working expenses 53,702,000 florins; the number of passengers carried 95,582,000; tons of freight, 24,480,000.

The Austrian postal traffic in 1896 was 740,904,060 letters and postal cards, 104,816,660 samples and books, and 87,592,600 newspapers; the receipts were 44,373,724 florins and expenses 41,742,829 florins. In the Hungarian post office 152,889,000 letters and postal cards, 31,283,000 samples and book packets, and 89,081,000 newspapers were forwarded in 1895; the receipts were 16,771,000 florins and expenses 12,153,000 florins.

The telegraphs of Austria in 1896 had 30,495 miles of posts and 89,100 miles of wire. In Hungary there were 13,604 miles of line and 39,828 miles of wire in 1895. The telegraphs constructed in Bosnia and Herzegovina have 2,002 miles of line and 3,311 miles of wire. There were 13,213,633 messages sent over the Austrian lines in 1896; in Hungary the number for 1895 was 6,969,643; and in Bosnia and Herzegovina in 1896 there were 547,046 messages transmitted.

Navigation.—There were 92,637 vessels, of 10,695,978 tons, entered at Austrian ports during 1895, and 92,566 vessels, of 10,692,058 tons, cleared. Of the total number 88 per cent., and of the tonnage 90 per cent., was Austrian, Italy, and then Greece, having the next largest proportion.

The Austro-Hungarian merchant navy in the beginning of 1896 consisted of 244 vessels, of 202,352 tons, engaged in foreign commerce, 1,746 coasting vessels, of 38,849 tons, and 9,922 fishing vessels and harbor craft, of 22,992 tons; total, 11,912 vessels, of 264,193 tons, having 33,023 men in their crews, and comprising 202 steamers, of 146,098 tons, and 11,710 sailing vessels, of 118,095 tons. Not included in these figures are 231 steamboats and 978 barges on the Danube and Elbe.

The Austro-Hungarian Ausgleich.—The negotiations for the renewal of the ten years' *Ausgleich* between Austria and Hungary were prolonged beyond the term of the treaty on account of the deadlock in the Austrian Reichsrath, caused by the conflict between the Government and the German minority over the language question. The position taken by the Hungarian Government was based on the Constitution of the kingdom, which did not admit of treating for the renewal of the *Ausgleich* otherwise than with the Austrian Parliament. The act passed by the Hungarian Parliament provided for the maintenance of the *status quo* only up to the end of the year. In case the Austrian Government failed to secure the co-operation of the Reichsrath in time to renew the decennial compromise before May 1, then the only alternative left for Hungary was to negotiate an ordinary treaty of commerce between the two countries as independent states. This would not affect the permanent, non-renewable parts of the *Ausgleich*, including the obligations of both states to provide for the common defense, which Hungary could discharge by contributing her share, both of men and of money, according to the Hungarian Constitution and laws, leaving

Austria to fulfill her part by constitutional agencies or otherwise. The question of the quota, or the respective contributions of the two halves of the monarchy to the common expenditures, which occasioned a long dispute in the beginning, was in a fair way to a settlement satisfactory to both governments. Hungary objected to paying on the basis of population on account of the backward condition of her industries and the poverty of the Slovaks and other elements of her population. Ultimately it was agreed that the contributions should be calculated on the same basis as in 1887. There was still a question as to the method of estimating the Hungarian share, the difference being a little over 3 per cent. The German peasantry of Styria, Tyrol, and other provinces whose representatives joined in the obstructive tactics that paralyzed the Austrian Parliament were actuated not solely by race feeling, but were desirous of defeating the *Ausgleich* and erecting a customs barrier between Austria and Hungary, as they attributed to Hungarian competition the agricultural distress that afflicted Austria. In Hungary too, if it were not for fears that a customs frontier would lead to the dissolution of the dual monarchy, the idea of protection against Austrian industry and of independent treaty arrangements with Germany and other customers for Hungarian produce would be very popular. As it was, the Hungarians stiffly maintained the position which they had taken as to the quota, but they were willing to prolong the *status quo* for one year more in case the parliamentary deadlock in Austria continued.

At a conference between the Austrian and Hungarian Premiers the latter agreed to an application of the emergency paragraph of the Austrian Constitution if after convening the Reichsrath once more it should be found impossible to secure the passage of the *Ausgleich* bills. In that case the Hungarian Government would submit measures to the Legislature at Buda-Pesth providing for the independent regulation of Hungary's customs and commercial relations with Austria. Austria would then be at liberty to provide corresponding regulations by ministerial decree. It was understood that the Hungarians would contribute 2 per cent. more to the common expenditure than their former quota and that the provisional *Ausgleich* would last till 1903. In accordance with this arrangement the Austrian Reichsrath was convened for Sept. 26 by an imperial rescript issued on Sept. 2.

Austria.—The Austrian Empire is composed of 16 provinces, each of which has its own diet with large powers of legislation in matters connected with local taxation, agriculture, education, charity, religion, and public works. The Austrian Reichsrath consists of the House of Lords, made up of 21 archdukes, 67 feudal lords, 17 prince bishops, archbishops, and cardinals, and 120 life members, and the House of Deputies, of 425 members, elected for six years. 129 by rural communes, 118 by towns, 21 by chambers of commerce, 85 by landed proprietors, and 72 under the law of June 14, 1896, by the whole body of electors.

The Council of Ministers, first constituted on Sept. 29, 1895, was composed as follows at the beginning of 1898: President of the Council and Minister of the Interior, Count Kasimir Badeni; Minister of Finance, Chevalier de Bilinski; Minister of Worship and Public Instruction, Baron Gautsch von Frankenthurn; Minister of National Defense, Graf Zeno von Welsersheimb; Minister of Agriculture, Graf J. von Ledebur-Wicheln; Minister of Justice, Graf Gleispach; Minister of Commerce, Baron Glanz von Eich; Minister of Railroads, Ritter von Guttenberg; without portfolio, Dr. Rittner.

Finances.—The total revenue in 1895 was 827,394,000 florins, and the expenditure 809,885,000 florins. The estimates for the year 1898 make the revenue 719,900,282 florins, of which 518,889,842 florins are collected by the Ministry of Finance from taxes and duties, 118,829,800 florins come from the Ministry of Railroads, 52,452,150 florins from the Ministry of Commerce, 14,572,718 florins from the Ministry of Agriculture, 6,851,738 florins from the Ministry of Worship and Instruction, 1,575,597 florins from funds for pensions, subventions, etc., 1,379,996 florins from the Ministry of the Interior, 1,073,281 florins from the Ministry of Justice, 1,059,136 florins from the administration of the state debt, 791,800 florins from the Reichsrath and Council of Ministers, 408,879 florins from the Ministry of Defense, and 1,016,100 florins from various other sources. The total expenditures are estimated at 715,920,827 florins, apportioned as follow: State debt, 170,553,910 florins; contribution to the common expenditure, 122,656,440 florins; Ministry of Finance, 112,651,806 florins; Ministry of Railroads, 96,525,500 florins; Ministry of Commerce, 49,445,049 florins; pensions, subventions, etc., 29,348,305 florins; Ministry of Worship and Instruction, 29,177,140 florins; Ministry of Justice, 28,065,087 florins; Ministry of the Interior, 26,623,441 florins; Ministry of Defense, 24,072,680 florins; Ministry of Agriculture, 18,588,231 florins; Reichsrath and Council of Ministers, 2,636,283 florins; imperial household, 4,650,000 florins; management of debt, 650,190 florins; Board of Control, 176,600 florins; Imperial Cabinet Chancery, 76,864 florins; Supreme Court, 23,300 florins.

The Gautsch Ministry.—After the German party by noisy obstruction and dangerous violence had defeated all immediate prospect of the renewal of the *Ausgleich* with Hungary or of any useful legislation being accomplished in the autumn session of 1897, and even imperiled the peace of the empire, Count Badeni resigned in consequence of the passage of the *lex Falkenhayn*, a drastic measure for the suppression of obstruction, which permitted the intervention of the police in Parliament for the forcible expulsion of contumacious members. The legality of the new rule was called in question in a country where parliamentary freedom is regarded as a bulwark of popular rights, and the defection on this account of the Tyrolese Catholic People's party and of the German landed proprietors placed the Cabinet in a minority. Baron Gautsch then undertook the duties of Prime Minister and the Reichsrath was prorogued. The language conflict was thus transferred to the provincial diets, which sat early in 1898. The Germans, having almost abandoned their hopes of Germanizing the Slavs, were anxious to preserve their existing rights and erect legal barriers against further Slav encroachments. The Landtag of Lower Austria passed a resolution establishing German as the exclusive language to be used in the schools, but this the Czechs, seconded by the Social Democrats, denounced as unjust and oppressive to the Bohemian working classes in the province, numbering in Vienna alone not less than half a million people. A similar resolution was subsequently passed by the upper Austrian Landtag at Linz. In the Bohemian Diet the extreme Pan-Germanic Nationalists, with Herr Wolf and Herr Schönerer at their head, took the lead and effectually checked the efforts of the Conservative party of feudal landowners, which some of the moderate Germans were inclined to support, in the direction of a temporary compromise. The Germans, persisting in their demand for an unconditional abrogation of the language ordinances, threatened to withdraw from the Diet as well as from the Reichs-

rath. Baron Gautsch had only one object in view in accepting the post of Austrian Prime minister at this critical juncture. It was to effect some sort of compromise that would do away with obstruction in the Reichsrath and enable it to pass the *Ausgleich* measures. The mediation of the Gautsch ministry proved, however, as ineffective as the previous efforts of the Badeni Cabinet to bring about a conciliation between the warring nationalities. The Austrian Government proposed a modification of the language ordinances, offering as a counter-concession to the Czechs alterations in the curriculum of the Bohemian intermediate schools designed to promote the practical acquisition of the Czech language. While the two measures together were favorably received by the Czechs, the Germans protested against this last proposition as a second apple of discord. The proposed new language ordinance divided Bohemia into Czech, German, and mixed districts, in which respectively officials would be required to transact the business of public offices in Czech, in German, or in both languages, the object being to insure to each inhabitant of the kingdom, whether German or Czech, the right to transact his affairs with the officials in his own tongue. The parliamentary controversy over the question was attended by angry demonstration out of doors. German students were assailed in the streets of Prague for wearing their national badges, and when the police authorities prohibited societies from wearing their colors in public the senate of the German university resigned on Jan. 22 and the whole body of German students resolved to abstain from attending university lectures. The German students in the universities of Vienna, Brunn, Innsbruck, and in other Austrian high schools struck out of sympathy with their brothers of Prague, and refused to attend lectures until the obnoxious police regulation should be withdrawn. Their action gave occasion to the Slavs to demand for themselves separate educational facilities in the professional and technical schools. The disintegrating nationalist movement pervaded the entire empire of the Hapsburgs, gaining a fresh impetus with every new attempt at conciliation. The Poles, offended at the dismissal of Count Badeni, wavered in their fidelity to the alliance with the Czechs. The Ruthenians demanded in the Galician Diet that their language be used concurrently with Polish and a knowledge of it be made obligatory for all public officials in the districts of Austrian Poland inhabited by both nationalities. In the Styrian Diet the Slovenian minority threatened to withdraw from the deliberations unless their nationality were recognized. There was a renewal of the agitation among the southern Slavs in favor of combining to form a new nationality. Even in the land of the Hungarian Crown various nationalities leagued together to assert themselves in opposition to the strong centralizing tendency. The Saxons of Transylvania joined with Servians, Roumanians, and Slovaks in a protest against the substitution of Magyar names of places for those of other languages at present in use. In Carniola the Slovene majority in the Diet carried a motion in favor of establishing a Slovene university at Laibach. The Prime Minister threatened to visit pains and penalties upon the recalcitrant German students, but they were forgiven upon their conforming again to academic discipline, much to the disappointment of the clerical Slav supporters of the Government in the Reichsrath. When the Czechs in the Bohemian Diet, supported by the feudal aristocracy, insisted on inserting in a jubilee address to the Emperor an expression of their aspirations for a separate kingdom of Bohemia, including Moravia and Silesia, they provoked the

threatened rupture of the Germans, who on Feb. 26 left the house. The Diet was closed by imperial decree on March 2, and on March 4 the modified language ordinances were published. Before their effect could be seen Count Gautsch, who had long despaired of consolidating a working majority, and who now encountered fresh difficulties in the negotiations over the Austro-Hungarian *Ausgleich* with Baron Banffy, the Hungarian Premier desiring to treat the customs union and the charter of the Austro-Hungarian bank apart from the question of the quota, offered his resignation on March 5 in order to make way for Count Thun and a new ministerial combination.

Ministry of Count Thun.—The new ministry was constituted on March 7 as follows: President of the Council and Minister of the Interior, Graf Franz Thun-Hohenstein; Minister of Public Instruction and Ecclesiastical Affairs, Graf Bylandt-Reydt; Minister of Finance, Herr Kautz; Minister of Agriculture, Baron Kast; Minister of Commerce and National Economy, Dr. von Bärenreither; Minister of National Defense, Field-Marshal Graf Zeno Welser von Welsersheimb; Minister of Justice, Edler von Ruber; Minister of Railroads, Ritter von Wittek; without portfolio, Herr Jandrejevich. Count Thun, once known as a Czech patriot, afterward, when Governor of Bohemia before the advent of Count Badeni to power, the terror of the Young Czech agitators, against whom he applied the arbitrary powers of the state of siege, had made his peace with the Czechs before the close of the session of 1897. In the ministry the Young Czechs, the Poles, and the moderate section of the German Liberals were represented, as well as the Clerical and Feudalist Conservatives, of whom the Prime Minister was one. These heterogeneous elements were called into the Cabinet in the hope of conciliating the moderate members of the different parties so as to make it possible to carry the *Ausgleich*.

The Reichsrath reassembled on March 21. The German Nationalist group, numbering 5 members only, but exercising a dominating influence as the foremost champions of the Germanic cause, offered uncompromising opposition to the Government until the language ordinances were repealed and German confirmed as the state language. The German People's party, which numbered 39 members, hailing mostly from the Alpine provinces, decided to continue obstruction till the repeal of the *lex Falkenhayn* and the language ordinances, and the 49 members of the German Progressives, representing Bohemian and Moravian constituencies, adopted also a hostile attitude, while the German Feudalist group, numbering 26, reserved liberty of action. The Social Democrats, 14 in number, promised their support to any effort to drive out the representative of the aristocratic reactionaries. Count Thun stated the Government programme to be the restoration of normal conditions in the Reichsrath and of regular legislation and the conclusion of an arrangement with Hungary, and he appealed for the support of all who had the credit of the monarchy and the existence of parliamentary forms at heart to support the Cabinet, whose guiding principle would be justice to all the peoples and races of the country and whose aims embraced social reform, intellectual progress, improvement of the moral and material condition of the population, and the encouragement of industry and agriculture. The Reichsrath took a recess after organizing, reassembling on April 20. A motion to refer to a committee the impeachment of the former Prime Minister, Count Badeni, after a tumultuous debate was carried by a majority of 175 to 187 on April 26. The *lex Falkenhayn*, which was a resolution passed by the Reichsrath

without debate, under which 12 German National and Social Democratic members were evicted from the Chamber and were excluded from their seats for three days, was on the same day pronounced unconstitutional by the Supreme Court in an action brought by these members to recover from the Government their parliamentary allowance of 10 florins a day. Count Falkenhayn's motion, which was passed in the midst of riotous and scandalous proceedings that took place in November, 1898, empowered the president of the Chamber to exclude a member who has been guilty of grossly disorderly conduct from three sittings at his own discretion or with the assent of the house from thirty sittings. It also declared that the salaries of members should cease during the period of their suspension. The introduction of the motion caused such a tumult that it was put to the house in dumb show by the president, and was declared carried, and put in force on the following day, when the obstructionists after outrageous misconduct were ejected, struggling violently with the police. The court decided that the modification in the standing orders was illegal because the Constitution requires that any change of the kind should be submitted to a committee and subsequently discussed by the Reichsrath, whereas the *lex* Falkenhayn was sprung upon the house without these formalities.

Count Thun invited the Reichsrath to regulate the language question in a manner to protect the minorities, reduce national friction, and lay the foundations for a durable peace in the whole nationality struggle, promising to abrogate the Gautsch decree as soon as a committee of the Reichsrath, composed of representatives of all the parties, should arrive at an understanding on the subject. The prospect of peace between the nationalities was rendered more remote by incidents that occurred in Gratz, which caused fresh irritation. On the occasion of the last stormy sittings of the Reichsrath this university town was the scene of riotous disorders, ending in a collision between the populace and the Bosnian regiment stationed there. The municipality gave a public burial to a workman who was killed, and nearly 50 officers of the reserve took part in this demonstration against the Government for employing a Slav regiment to keep order in a German city. These officers the Government reduced to the ranks, transferring some of them to Slav and Magyar regiments, in which they were compelled to serve as common soldiers. After the band concerts had been omitted for several months the garrison allowed the music to be resumed, making a beginning with the band of the Bosnian regiment; but as soon as the bandmen began to play they were chased off the platform by a mob of students and Socialist workingmen. The Minister of War, in answer to an interpellation in the Austrian Delegation, refused to consider the suggestion that he should remove the Bosnians from Gratz and restore the degraded reserve officers, and after the municipal council of Gratz on May 25 had passed resolutions reflecting on the Government it was dissolved and replaced by a Government commissioner. In Brünn, the Moravian capital, and in Prague collisions occurred between Czechs and Germans. The interference of the German Empire and its absorption of German Austria were openly invoked by the German Nationalists, while the Czechs vaunted the sympathy and protection of Russia and fraternized more than ever with the Pan Slavists. When the Reichsrath met again on June 1, after the Delegations were closed, the Cabinet had to face the reunited German Opposition. The German Nationalists were able to stop all business from being transacted or even discussed. When the Prime Minister rose on June 7 to read his

answer to an interpellation on Gratz, Herr Schönerer took possession of the floor to read interminable petitions for the adoption of German as the state language. Before the date of the next appointed sitting the Reichsrath was prorogued, leaving the Government of the country to be carried on under the fourteenth article of the Constitution, or virtually by a suspension of the Constitution. This article was intended to meet emergencies when the Reichsrath does not happen to be in session. Action taken under it by the Government has the force of law only under limitations, the most important of which is that the Government's decrees must be laid before the next Reichsrath within four weeks of its assembling. The breakdown of the parliamentary system was not contemplated, but the Emperor would not break the letter of the Constitution if he continued to govern by arbitrary decrees indefinitely without calling the Reichsrath together to render an account of his actions. The Government programme of railroad construction and a comprehensive scheme of public improvements, including the regulation of rivers, the sanitation of towns, etc., could not be carried out because a loan was necessary for these purposes, and for that, though not for the levying of taxes and the expenditure of public moneys, the assent of Parliament is necessary.

Anti-Semitism in Galicia.—The Polish peasantry, first ground down by their landlords, and then driven to the wall by the Jewish usurers from whom they had obtained temporary relief in their distress, stirred to hatred against their oppressors by Social Democratic agitators, and inflamed with religious antipathy to the Jews by false tales palmed on their ignorance by unscrupulous Anti-Semitic fanatics, found a vent for their desperate feeling and a relief to their famishing condition in a series of outrages and robberies begun in the spring of 1898. At first the poorer Jews were the objects of their fury, but later they attacked the rich Jews and burned and plundered the houses of the landowning nobility. The Government, when the movement took this latter form, proceeded with vigor against Social Democrats, not only those of the disturbed districts, but the leaders of the party and the trade unions in Vienna, whose papers and funds were confiscated contrary to law.

Hungary.—The Hungarian Parliament consists of two chambers. The Chamber of Magnates is made up of 19 archdukes, 181 hereditary peers paying 3,000 florins of annual land taxes, 84 life peers, 41 archbishops, bishops, and other prelates of the Roman and Greek churches, 11 representatives of the Protestant communions, 17 official members, and 8 delegates from Croatia and Slavonia. The House of Representatives contains 453 members, elected by all male citizens over the age of twenty who pay a certain minimum tax or have a specified small income. Of the members 418 represent the towns and rural districts of Hungary, including Transylvania, and 40 are from Croatia-Slavonia, which has a provincial Diet with power to legislate on internal religious, educational, and police affairs.

The ministry, which is individually and collectively responsible to Parliament, was in the beginning of 1898 made up as follows: President of the Council, Baron Desiderius Banffy; Minister of Finance, Dr. Ladislau de Lucacs; Minister of National Defense, Baron Geza Fejervary; Minister of the Imperial Cabinet, Baron Ernest de Daniel de Szamosujvar-Nemethi; Minister of the Interior, Desiderius Perczel; Minister of Education and Public Worship, Dr. Julius de Wlassics; Minister of Justice, Dr. Alexander Erdely; Minister of Agriculture, Dr. Ignatius Daranyi; Minister for Croatia-Slavonia and Dalmatia, Emerich de Josipovich.

Finances.—The ordinary revenue in 1896 amounted to 500,574,000 florins, and transitory and extraordinary revenue to 17,625,000 florins; total, 518,453,000 florins. The ordinary expenditures were 445,967,000 florins; transitory expenditures, 15,795,000 florins; investments, 47,261,000 florins; and extraordinary expenditures, 6,920,000 florins; total, 515,948,000 florins. The budget for 1898 makes the ordinary revenue 470,605,451 florins and the transitory revenue 27,710,840 florins; total, 498,316,291 florins. The sources of ordinary revenue are: Ministry of Finance, 308,841,770 florins; Ministry of Commerce, 188,325,269 florins; Ministry of Agriculture, 16,781,727 florins; state debts, 2,298,231 florins; Ministry of Public Worship, 1,706,795 florins; Ministry of the Interior, 1,487,855 florins; Ministry of Justice, 795,963 florins; Ministry of National Defense, 367,041 florins; ministry *ad latus*, 800 florins. The total ordinary expenditure is estimated at 449,084,228 florins, transitory expenditure at 14,086,378 florins, and investments at 35,069,964 florins; total, 498,240,570 florins. The items of ordinary expenditure are as follow: National debt, 129,192,798 florins; Ministry of Commerce, 97,326,100 florins; Ministry of Finance, 74,720,382 florins; contribution to common expenditure, 27,882,870 florins; Ministry of Agriculture, 18,470,464 florins; Ministry of the Interior, 17,053,907 florins; Ministry of Justice, 16,539,356 florins; Ministry of National Defense, 16,164,135 florins; debts of guaranteed railroads taken over by the Government, 13,671,287 florins; Ministry of Public Worship and Instruction, 13,118,716 florins; pensions, 8,687,457 florins; administration of Croatia, 8,307,881 florins; civil list, 4,650,000 florins; Parliament, 1,758,906 florins; minister presidency, 457,290 florins; guaranteed railroad interest, 438,508 florins; administration of courts, 364,118 florins; Accountant General's office, 150,343 florins; Cabinet Chancery, 76,864 florins; ministry *ad latus*, 74,478 florins; Ministry for Croatia, 43,908 florins; common pensions, 25,480 florins.

Agrarian Socialism.—After the harvest strike of agricultural laborers of the Alföld, the great plain of Hungary, which took place in 1897, the Government in the beginning of 1898 carried through Parliament a measure intended to prevent its recurrence. This Government bill delivers the laborer up to the arbitrary discretion of his employer, empowering the latter to put an end to the contract he has entered into and to withhold the wages he has agreed to pay if the laborer should, in his opinion, be a Socialist agitator. If the laborer, however, should fail to appear at the time and place appointed, the employer is entitled to call upon the authorities to enforce him to carry out his contract, and the laborer has no legal defense against such a proceeding. This remarkable piece of class legislation, branding a strike as an act of mutiny and insurrection, overshot the mark, stimulating rather than checking the agrarian movement. The liberty of speech and of public meeting was so restricted for the laborers by law that they could not hold political gatherings for the expression of their grievances. They therefore resorted to the stratagem of public balls, which were followed by acts of pillage in many places, the wrecking of public buildings, incendiary letters to landowners, and a refusal to pay taxes, necessitating the intervention of the military. In the neighborhood of Debreczin a peasant revolt was suppressed by a considerable military force, and in other districts encounters took place between starv-

ing laborers and the gendarmerie, accompanied by loss of life and acts of incendiarism. When a deputa-tion of landowners of the Szabolcs Comitát asked for the energetic intervention of the Government, the Prime Minister promised military precautions on an extensive scale and even a law further restricting the freedom of the press. The authorities arrested and expelled agitators wherever found. Still the peasantry, whose ultimate demand was for a division of the soil among all the inhabitants, prepared for a new strike and combined to refuse to make contracts for the next harvest, so that employers were compelled to offer better terms than before in spite of the new labor law and the bitter distress among the laborers. The agricultural depression of recent times has not only lowered the standard of life and comfort among the landless laborers, but has reduced to their condition a large class of proud and independent peasant proprietors, who have been compelled to give up their small farms from which they could no longer extract a livelihood, and these properties have been swallowed up in the great estates. The Catholic People's party in Parliament supported a proposal to break up the huge entailed estates and other large domains which have grown enormously as a result of the present agrarian system. The Moderate and Conservative politicians as well as the Radicals condemned the methods pursued by the Government in dealing with the agricultural laborers, who, while denied the right of parliamentary representation, have the right of association also taken away from them and are placed under permanent police supervision. At the request of the Hungarian Minister of the Interior the Imperial Government sent a commissioner into the Szabolcs country, which was the center of the agitation, and arranged to replace with Bosnian and Croatian troops the Magyar regiments stationed in some of the disturbed districts, because these seemed to sympathize with the peasants. As the bulk of the Ministerial party belonged to the landowning class, the Liberal Cabinet could not deal with the agrarian problem independently. Nevertheless, the Minister of Agriculture promised remedial measures that would take into consideration the views of the laboring classes as well as those of their employers. Socialist leaders in Buda-Pesth were subjected to domiciliary visits and the books and funds of trade unions were confiscated, acts which were denounced by the Opposition as illegal. The Minister of the Interior affirmed that the wires of the peasant movement were pulled from the capital. He denied that there was distress in the Szabolcs, saying that wages there were high, the authorities offering half a florin a day for labor on public works. On March 31, near Temesvar, a mob armed with pitchforks and hatchets charged upon a force of gendarmes and put them to flight after being fired upon with fatal results. Baron Banffy accused the Ultramontane People's party, which had lately adopted Anti-Semitism and denounced the Government for succumbing to Jewish control, with seeking to foster this agrarian socialism, which dreamed of a Russian conquest of the Magyars and hoped for a subversion of all authority and a division of the land among the proletarians. The Magyarizing policy of the Government in Transylvania cost it the support of the Saxon representatives. The promised remedial measures to stem the agrarian discontent had not taken definite form when Parliament was prorogued on July 28.

B

BAPTISTS. Statistics.—The "American Baptist Yearbook" for 1898 gives statistics of the Baptist churches in the United States, of which the following is a summary: Number of associations, 1,609; of churches, 43,397; of ordained ministers, 27,355; of members of the church, 4,055,806; increase during the year by baptism, 198,432; number of Sunday schools, 22,529; of officers and teachers in the same, 172,062; of pupils, 1,628,971; of meeting houses, 12,708, with seating capacity for 2,621,800 persons; of parsonages, 1,475; value of church property, \$89,857,207. Amount of contributions: For church expenses, \$9,021,818; for Sunday-school expenses, \$422,540; for State missions, \$317,667; for home missions, \$306,931; for foreign missions, \$399,814; for education, \$108,205; miscellaneous contributions, \$1,417,094.

The "Yearbook" also gives as statistics of the Baptists of the world: In North America, including besides the United States, the provinces of Canada (925 churches, 573 ordained ministers, 5,252 baptisms, and 89,470 members), Central America, Mexico, and the West Indies, 44,593 churches, 28,066 ministers, 205,843 baptisms, and 4,190,031 members; South America (Argentine Republic, Brazil, and Patagonia), 23 churches, 14 ministers, 257 baptisms, and 1,150 members; Europe (including Great Britain, Austria-Hungary, Belgium, Denmark, Finland, France, Germany, Holland, Italy, Norway, Roumania and Bulgaria, Russia and Poland, Spain, Sweden, and Switzerland), 3,969 churches, 2,971 ministers, 23,239 baptisms, and 469,290 members; Asia (including Ceylon, China, India, Assam, Burmah, Japan, Orissa, and Palestine), 1,291 churches, 769 ministers, 5,405 baptisms, and 114,587 members; Africa, 96 churches, 79 ministers, 483 baptisms, and 5,977 members; Australasia, 230 churches, 163 ministers, 1,107 baptisms, and 18,089 members; total for the world, 50,222 churches, 32,052 ministers, 236,334 baptisms, and 4,799,124 members.

The "Yearbook" gives for the Baptist institutions of learning, comprising 7 theological seminaries, 94 universities and colleges, and 77 academies and seminaries, 2,215 instructors, 33,580 students, \$27,367,772 of property, and \$16,190,931 of endowment funds. Thirty-four Baptist charitable institutions (hospitals and orphan and other homes) return property valued at \$1,626,121.

Missionary and Benevolent Societies.—The annual meetings of the Northern Baptist societies were held in Rochester, N. Y., May 16 to 23. The meeting of the Woman's Baptist Home Mission Society was held May 16. The report showed that the society was free from debt, and had a small balance in the treasury. It had received \$70,506, while its disbursements and unpaid liabilities at the close of the year aggregated \$69,907, leaving a balance of \$668 with which to begin the new year. It had further distributed supplies to frontier missionaries, industrial schools, and other objects of its care, amounting in value, according to the estimates of the donors, to \$10,094. Of its funds, \$2,019 had been expended for the support of workers in schools of the American Baptist Home Mission Society and \$2,161 had been paid into the treasuries of State conventions in frontier missionary States. One hundred and twenty-six missionaries had been employed at 96 stations in 35 States and Territories in the United States and Mexico—viz, 15 in frontier work (including Utah), 6 among

the Chinese, 24 among Germans, 1 among Jews, 2 among Danes and Norwegians, 12 among Swedes, 14 among Indians, 8 among Mexicans, 46 among negroes, and 1 on detail service. Twenty-one students had been graduated from the training school.

Missionary Union.—The eighty-fourth annual meeting of the American Baptist Missionary Union was held May 17 and 18. The treasurer reported that the total receipts for the year had been \$849,477, of which sum \$287,355 were credited to donations, \$99,916 to the four woman's societies, \$151,267 as the gift of John D. Rockefeller toward the extinction of the debt, and \$142,561 to the contributions of the Church for that purpose. The donations from the churches, not including the contributions for the debt, were \$31,056 more than those of the year previous. The appropriations for the work of the year from Oct. 1, 1897, to Oct. 1, 1898, had been originally \$423,126, or \$114,271 less than those of the year before. To this sum \$57,859 had been added during the year. Applications for much more than the amount granted to the mission fields had been received, and the money could have been profitably employed, but the Executive Committee had felt the necessity of avoiding debt, and had reduced the scale of operations to an extent that could not be continued permanently without sacrificing precious interests. While it was represented that the European missions had never been more prosperous than during the past year, a special survey was given of the Asiatic missions. The pressing of the Chinese into Burmah, where they are becoming an important element of the population, was mentioned as a problem demanding particular consideration. The seminary at Rangoon was proving a very important agency for the supply of preachers and teachers for the several nationalities. The printing press and its work were becoming more and more important. The mission in Burmah, begun in 1873, had made a great return for the labor expended upon it, and gave large promise for the future. Of the races in the country, the Karens had been the most attractive, and had received the most attention, but the Burmans were by far the more important people. No mission had been more fruitful during the past few years than that in Assam. The hill tribes—the Garos, the Nagas, and others—had become to the society what the Karens in Burmah had been a few decades ago; but the importance of reaching the Assamese was insisted upon. The Telugus had become associated with the greatest triumph in the shape of revivals and the spread of Christian experience in the history of modern missions. The Chinese and Japanese missions were also referred to as making notable advances. Certain important points set forth in this paper were, first, the necessity of continuing the prominence given in the past to direct evangelistic work. "All other forms of work should be subsidiary to this. The ultimate aim of missions is to plant Christianity; its extension must be relegated to the native churches, and they must not depend upon the board for their own missionary extension." There should be at the first favorable moment the organization of individual believers into independent churches. Second, the Union must require of its missionaries a fluent command of the vernacular. Third, it is a wise policy to change at this time, or soon in the future, the method of conducting the schools, in some countries at least. There should be a concentration of schools, with a

fostering of secondary schools and a laying of foundations for theological training. Fourth, the time is ripe for the Union to take decisive steps for the introduction of industrial pursuits among native Christians. A resolution was passed by the meeting affirming that the settled aim and purpose of the Missionary Union "are nothing less and nothing else than the planting of Christianity as an abiding possession of the land in which its work is done, and that it regards as necessary to this end the forming of a strong and self-supporting Christian people, trained in all that pertains to intelligent thought and worthy living." A comparison was given in the report of the Executive Committee of the condition of the Union and its work in 1869 and 1898, summarized as follows:

ITEMS.	1869.	1898.
Missionaries	121	497
Appropriations	\$180,000	\$550,000
Receipts	196,000	488,000
Permanent funds	58,000	532,000
Annuity accounts	None.	300,000
Deficiency	30,000	68,000
Property owned by the Union abroad free from debt	None.	700,000

The twenty-seventh annual meeting of the Baptist Woman's Foreign Missionary Society of the West was held at Waterloo, Iowa, April 20 and 21. The treasurer's report showed that the receipts for the year had been \$58,607, and the expenditure \$57,299, leaving a balance in the treasury, including designated funds, of \$1,308.

The European missions (in Sweden, Germany, Russia, Finland, Denmark, Norway, France, and Spain) returned 1,518 preachers, 950 churches, 102,968 church members, 6,668 baptisms during the year, 79,321 pupils in Sunday schools, and contributions amounting to \$118,900: the missions to heathen (in Burmah, Assam, Teluguland, China, Japan, and Africa), 93 stations, 463 missionaries, 3,484 native helpers, 870 churches, 96,904 church members, 6,529 baptisms, 34,041 pupils in Sunday schools, \$71,849 of contributions; and a total of 31,226 pupils in theological, boarding, and other schools.

Home Mission Society.—The sixty-sixth annual meeting of the American Baptist Home Mission Society was held May 19 and 20. The receipts for the year had been \$458,470, of which \$385,222 had come from the contributions of churches, schools, etc. The expenditure had been \$402,315, exceeding the income available for current work by about \$14,000. The permanent trust funds had been increased by about \$17,000, and \$60,000 had been added to the annuity funds, which now amounted to \$400,000. The growth of the work of the society had been rapid and substantial, especially in the far West. Missionary work among foreign populations was most prosperous and encouraging, especially among Italians, and there had been progress in spite of difficulties in Mexico and among the negroes. One thousand and thirty missionaries had been employed, of whom 113 had labored in the Central and New England States, 197 in the South, 688 in the West, 14 in Canada, and 18 in Mexico. Sixty-three of these had labored among the foreign populations. The missionaries had baptized 5,022 persons and received 3,938 others, and returned a total membership of 40,593, 150 churches organized, 985 Sunday schools under the care of missionaries, and benevolent contributions amounting to \$85,738. Important movements during the year had been the withdrawal of co-operation from Iowa, Wisconsin, and Minnesota, the extension of co-operation with the colored people of the South, and the beginning of larger participation in

city mission work. Ninety-five churches had been aided from the Church Edifice fund. From the educational department the total enrollment of pupils in all the schools was reported as being 5,396. More than \$259,000 had been spent during the year 1896-'97 on the colored schools.

Thirteen high schools and 13 secondary schools for colored people returned a total enrollment of 5,086 pupils (2,210 young men and 2,826 young women), with averages of 1,414 boarders and 1,685 day pupils, or a general average of 3,099. Of these numbers, 373 were studying for the ministry, 1,724 were preparing to teach, 29 were in the teachers' professional course, 25 in the missionary training course, 39 in the nurse's training course, and 1,787 had received systematic training in some line of industrial work. Three hundred and sixty pupils were enrolled in the schools for Indians, 2 of whom were studying for the ministry and 25 were preparing to teach. Two hundred and forty-seven teachers—120 white and 127 colored, 103 men and 144 women—were employed in the colored schools receiving help from the society; in the 10 schools wholly or partially managed by the society 112 white and 42 colored, and in those under the entire control and management of colored trustees 85 colored and 8 white teachers. The society had received in the shape of tuition fees, in payment for board, etc., \$118,032 from the colored people, and had contributed to the support of their schools, for buildings, etc., \$84,767, and the total amount of \$255,452 had been expended on them during the school year. The 16 schools under the entire control and management of negro boards of trustees included 3 holding college charters and 13 secondary or academic schools. The aggregate salaries of all the teachers in these schools were \$44,827, of which the society paid \$9,700, and the expenditure for board, school supplies, and all other current expenses was \$39,570, making a total expenditure for 1896-'97 of \$84,397. Chinese mission schools were sustained at various points in the Pacific States and Montana, and in New York city; and other schools in Utah, Mexico, and New Mexico.

Publication Society.—The seventy-fourth annual meeting of the American Baptist Publication Society was held May 21 and 23. The report mentioned as the great event in the year's history of the society the completion of its new building in Philadelphia, costing \$530,000, without cost to the missionary department of its work except that money had been borrowed from it. In the business department the aggregate of sales had been \$670,093, an increase of \$48,806 over the previous year. In the missionary department the receipts from invested funds, contributions, Children's Day, etc., had been \$115,433. The deficit in this department, \$11,374 at the beginning of the year, had been reduced to \$8,464. In addition to the ordinary missionary contributions \$41,850 had been received from bequests in the form of conditional gifts. The receipts in the Bible department had been \$12,419; and the entire amount, including Bible funds, coming into the missionary treasury through ordinary channels had been \$127,852. Very great enlargements had been made in the Bible work during the year. The society was no longer dependent upon any other society for Scriptures in the ordinary version, but had a list of its own, comprising text editions, teachers', family, pulpit, illustrated, and other Bibles. On the general list, 72 new publications had been issued. Ninety-four missionaries and workers had been employed during the year, who had baptized 533 persons and constituted 51 churches.

A "ladies' chapel car," built at a cost of \$8,000 entirely by contributions from women, was dedi-

cated during the meetings under the name of the "Messenger of Peace." It has a seating capacity for 175 persons.

Other Societies.—The Woman's American Baptist Missionary Society (New England) had raised \$37,000 dollars during the year, and had supported, in whole or in part, 55 teachers, most of whom had been selected and appointed by the Home Mission Society.

The report of the American Baptist Historical Society mentioned a revival of interest since the opening of its new rooms in the Baptist building in Philadelphia, and the gradual growth of the new collections which had been made to replace those which had been destroyed by fire. The Committee on Studies in Baptist History reported that arrangements had been made to begin immediately the publication of historical papers.

The Commission on Systematic Benevolence reported progress in its work of increasing the interest of the churches in the causes for which contributions are sought, and in systematizing the methods of giving. It had proceeded by means of meetings, the distribution of literature, and organization.

Young People's Union.—The annual convention of the Baptist Young People's Union of America was held at Buffalo, N. Y., July 14 to 17, and was attended by more than 10,000 members and visitors. The report of the Board of Managers emphasized the fact that the Union had completed the first seven years of its growth. The distinctive features were federation, education, and denomination. All these were needed, denomination to give control and direction to the other two. The report of the previous year at Chattanooga had placed emphasis on the extensive development of the work, in the extension of territory in the South, in the general expansion of the work, and in internal administration. The year just closed had been marked rather by intensive development. The work of State and provincial organization had been carried so far as to include nearly all the territory. The general secretary had traveled extensively during the year, and had addressed rallies, associational gatherings, or State conventions in 24 States, provinces, etc. The relations established with the Baptist Young People's Union auxiliary to the Southern Baptist Convention had been "harmonious and delightful." The development of the work in the South had been one of the salient features of the year. A review of the seven years' history of the Union was presented, which recited that after the organization of the Christian Endeavor Society numerous Baptist societies arose and various views were current. Some representative men wanted an exclusive denominational society. The Christian Endeavor Societies feared the withdrawal of the Baptist societies. A federative plan was suggested in Nebraska for the formation of young people's societies for which no form of constitution should be required, and for the federation of all societies, of whatever name or affiliation, into a State organization. This plan was practically accepted at a meeting for organization held at Chicago, Ill., in June, 1891, when the present name and constitution were adopted, and Chicago was made the headquarters of the Union. A proposition to make the meetings of the convention biennial instead of annual was submitted to the local unions for consideration. The Board of Managers announced that the designation Founding fund would be dropped from the financial reports, and contributions would hereafter be made to the debt. The sessions of the convention were occupied with conferences, addresses, reviews of progress in the Christian-culture courses, presentation of banners, and special meetings.

Meetings of the German Baptist Young People's Union were held during two days of the sessions of the convention.

Educational Society.—The American Baptist Educational Society, now ten years old, meeting alternately in the North and in the South, met in connection with the Southern Baptist Convention at Norfolk, Va. It had during its existence made 37 grants to schools—to 14 in the North, 10 in the South, and 13 in the West. It had granted \$452,600 to schools, of which \$259,991 had been paid, while the remainder had lapsed or was held for the institutions. The additions to schools as a result of this work had been \$1,150,187, exclusive of Mr. Rockefeller's grants to Chicago University. That university, with its holdings of more than \$12,000,000, might not have been a possibility, the report suggested, without this society.

Southern Baptist Convention.—The Southern Baptist Convention met at Norfolk, Va., May 6. The Hon. Jonathan Haralson, of Alabama, was chosen president. The report of the Home Mission Board showed that \$54,251 had been raised and expended on the field during the year, against \$45,672 in 1896; and that \$56,385 had been collected and expended in building houses of worship, against \$51,540 in 1896; making a total amount raised on the field of \$110,636, or \$13,424 more than in 1896. The whole amount of cash received by the board from all sources was \$36,827. Four hundred and sixty-seven missionaries had been employed, who returned 4,739 baptisms and 9,509 additions to the churches. In addition to the amount of money reported as raised on the field the board had invested more than \$10,000 in cash upon houses of worship. Nineteen hundred and sixty churches and stations had been supplied during the year, 103 churches constituted, 45 houses of worship built and 68 improved, \$59,629 expended on houses of worship, and 297 Sunday schools organized, representing 7,710 teachers and pupils. The co-operative work among the colored people had been attended with gratifying results, and successful institutes had been held among negro preachers. The Women's Missionary Societies had contributed \$35,636 to the cause represented by the board, or \$5,705 more than in 1896, and their work in forwarding supplies to frontier missions had been specially helpful.

The Board of Foreign Missions reported that while it had been burdened with an indebtedness of \$13,532 at the close of the previous year, it was now free from debt, and had a balance of \$2,976. The total contributions for the year had amounted to \$124,249 as against \$125,682 in the previous year. The Woman's Missionary Society, the tenth annual report of which was incorporated with the report of the board, returned total contributions of \$21,633. There were connected with the foreign work 76 missionaries and 117 native assistants, and 701 baptisms were returned. In China and Brazil "large numbers" had been added to the churches; in Japan, Africa, and Italy there had been steady progress; while less progress, but "good in some of the missions," had been made in Mexico.

The gross income of the Sunday-school Board had been \$64,000, and after promptly meeting all bills and expenses the treasurer returned nearly \$33,000 of assets, with practically no liabilities. Nearly \$13,000 had been expended in aid of the Home and Foreign Boards, Sunday-school missions, and other denominational interests, and in gifts of books, Bibles, tracts, and periodicals, and of boxes for Sunday-school missionaries. The reserve fund, which had been used in the previous year for the purchase of a house, had been started afresh and was held under safe investment for any emergency. The board asked to be allowed to publish books.

Certain expressions and acts of the Rev. Dr. W. H. Whitsitt, President of the Southern Baptist Theological Seminary, Louisville, Ky., has afforded matter of controversy among some of the members of the churches connected with the convention for several years. In historical articles written for "Johnson's Cyclopædia" and for the "Independent" newspaper, Dr. Whitsitt had affirmed as a fact that immersion was not practiced by the earlier English Baptists, nor down to a comparatively late date in their history. A demand was set up that he be disciplined and removed from his presidency on account of these publications and because of a discourtesy he was alleged to have shown toward one of the trustees in refusing to allow him informally to inspect his official books. The Board of Trustees had declined to entertain the complaint and the convention had refused to call their conduct into question. The trustees reported to the present meeting of the convention that they had received several communications respecting the management of the seminary, which they referred for consideration; "but, inasmuch as the communications refer only to issues which were settled by the trustees at their last meeting, it is proper to say that after twelve months of mature and prayerful reflection we can find no reason for modifying in any degree our statement made at that meeting; but, on the contrary, we feel constrained by our own convictions of duty to reaffirm our adherence to the action then taken." A motion to refer the matter to the several State organizations was lost by "an overwhelming majority"; and the motion to adopt the report of the Board of Trustees was carried by a vote of about 4 to 1. A motion asking for the Kentucky delegation to the convention the right hereafter to make nominations to fill Kentucky vacancies on the Board of Trustees; and a notice of a resolution to be made at the next meeting of the convention that "without expressing any opinion whatever concerning the seminary matters," "but in the interest of harmony it divests itself of responsibility in the management of the seminary by declining to nominate trustees for it, or to entertain motions or receive reports relating to it, were referred to a special committee to consider and report at the next session of the convention concerning the advisability of any change in the relations of that body to the seminary.

Subsequent to the meeting of the convention, Dr. Whitsitt resigned the presidency of the Theological Seminary.

The statistical secretary reported, of 687 associations whose minutes had been examined, while 27 had given no information, that there were associated with the convention 18,922 churches, with 1,568,906 members and 9,770 Sunday schools; that 98,984 baptisms had been reported for the past year; that the value of church property was \$18,681,227; and that the amount of contributions for all purposes was \$2,895,697. A resolution was adopted to petition the Government at Washington to use every effort toward securing religious liberty for every inhabitant of Cuba. The Home Mission Board was authorized to expend \$5,000 in the "mountain region" in aid of Baptist schools and in holding institutes for the ministers and laymen for biblical and theological instruction and qualification for religious work. Mormon missionaries were represented to be making formidable proselytizing efforts among these people. It was reported of the Cuban mission that while men missionaries had left the island, women had remained and worked in Sunday schools and day schools, while laymen carried on the Sunday meetings and prayer meetings. As a result, several converts were awaiting baptism.

The Baptist Young People's Union of America

is represented within the bounds of the Southern Baptist Convention by an aggregate membership approximating 60,000. It is represented to be difficult to obtain accurate statistics.

National Baptist Convention (Colored).—The National Baptist Convention (Colored) maintains a home-mission board, with a corresponding secretary having his office at Nashville, Tenn., and which publishes Sunday-school periodicals; a foreign-mission board, the receipts of which for 1896-'97 were \$4,337, and which sustains missions at Brewerville and Monrovia, Liberia; Cape Town, Queenstown, Ouanda, and four places in East Griqualand, South Africa; and an educational board, which reported an increase of interest in its work and improvement in the character and extent of the instruction given in denominational schools.

Reports of the statistician of the National Baptist Convention, the items of which are included in the tables of the "American Baptist Yearbook" and in the summaries at the beginning of this article, give the colored Baptist organizations in the Southern States 12,923 churches, 8,338 ministers, 1,470,876 members, and 285,806 pupils in Sunday schools. The members are distributed in the several States included in the showing as follow: In Alabama, 139,638; in Arkansas, 54,673; in Florida, 25,196; in Georgia, 211,660; in Kentucky, 71,328; in Louisiana, 71,845; in Mississippi, 198,654; in Missouri, 30,765; in North Carolina, 129,265; in South Carolina, 132,900; in Tennessee, 47,872; in Texas, 129,373; in Virginia, 223,778; in West Virginia, 3,929; total amount of contributions for all purposes, including benevolent objects and church expenses, \$677,662. The reports from which these data are derived are, many of them, very incomplete. The colored Baptists have regularly organized conventions in all the States named, with affiliated Sunday-school, educational, and missionary societies and women's organizations in several of them. The Colored Baptist University, at Selma, Ala., had at the end of 1897 been nearly freed from a large debt of fifteen years' standing, only \$500 remaining unprovided for. The State convention (white) of Arkansas employs a suitably qualified white minister to deliver weekly lectures to the ministerial students of Arkansas Baptist College for the education of colored people.

The Baptist Congress.—The sixteenth annual meeting of the Baptist Congress was held in Buffalo, N. Y., beginning Nov. 15. The congress is a voluntary meeting for discussion only, having no power to take definite action, and not even passing resolutions. The meeting was attended by about 50 brethren from the United States and Canada. The subjects were discussed of "Man's Fall and Redemption in the Light of Evolution," by President A. H. Strong, D. D., George Dana Boardman, D. D., H. Peabody, D. D., and L. C. Barnes, D. D.; "The Opportunity for Baptists in Present Religious Progress," by W. C. Bitting, D. D., Prof. A. H. Newman, D. D., the Rev. Everett D. Burr and George E. Horr, D. D.; "On what Grounds shall we accept the Biblical Books as our Bible?" by George E. Merrill, D. D., Prof. B. O. True, D. D., and the Rev. George H. Ferris; "State Help vs. Self-Help, or Paternalism in Government," by Prof. W. Rauschenbush, Prof. Shailer Matthews, and George William Douglas; "How far can the Truths of Christianity be stated in Terms of Naturalism?" by Prof. George B. Foster, D. D., Prof. W. N. Clarke, D. D., Albert Foster, D. D., and Prof. D. B. Purinton, LL. D.; and "The Union of the Believer with Christ," by the Rev. Clarence A. Barbour.

The "Hard-Shell" Baptists.—Three kinds or branches of "Hard-Shell" Baptists are described

by the Rev. J. B. Cranfill, editor of the "Texas Baptist Herald," who was reared among members of this sect and believes himself familiar with their doctrines, polity, and modes of thought. One branch is represented as thoroughly antinomian in practice, with its theology as running into fatalism; another branch as having articles of faith in all respects like those of the regular Baptists, its declarations and practice differing from those of the latter chiefly in the matters of feet washing and missionary operations. A third branch is called United Baptists, and is made up of Missionary Baptists and Hard-Shell churches that have come together. It is not distinctly a missionary body, but holds the form of the orthodox teaching concerning the doctrines of grace which have been advocated by Baptists from the beginning. Hard-Shell Baptists of the second of the divisions mentioned hold the orthodox views concerning the plan of salvation, the atonement, regeneration, repentance, faith, human instrumentality, sinners' praying, and all the other doctrines that are commonly believed among Baptists. The division among Southern Baptists on the question of missions began less than three quarters of a century ago. The Georgia Baptist Convention was organized while the disintegration was going on, and when that body came into existence there was not a Missionary Baptist Church in the State. There were Missionary Baptists in many churches, but there was no church that could have unanimously passed a resolution approving the convention and its work. The original constitution of the convention therefore provided that the body should be made up not of messengers from churches, but of individuals who would each contribute a certain amount annually to the support of missionary enterprises.

Baptist Convention of Ontario and Quebec.—The Baptist Convention of Ontario and Quebec met at Hamilton, Ontario, May 16. The Home-Mission Board reported that its income had been \$22,299 and its expenditures \$23,822. Twelve chapels had been built during the year, 8 churches organized, and 708 persons baptized under the direction of the missionaries. The women in Eastern Ontario were supporting missionaries in 7 fields and those of Western Ontario in 11 fields, besides contributing \$1,000 to the Grande Ligne Mission. Much evangelistic work was done by the co-operation of pastors and deacons. The receipts for church-edifice work had been \$1,851, and the disbursements \$1,346. The loans made during the year amounted to \$1,300. Several churches had paid off and others had reduced their indebtedness. The Grande Ligne (French Canadian) mission had an income of about \$18,000 a year, without counting the receipts from the pupils in the schools. The Feller Institute had 135 pupils, and had been obliged to refuse 50 for want of room. The school at Coaticook, with 63 pupils, had been closed a part of the year on account of illness. Two pastors were preparing to go among the French people, using both the French and English languages. McMaster University returned 173 students, 51 of them in theology; Woodstock Boys' College, 122, the manual training course, 51; and Moulton Ladies' College, 152 pupils. The Sunday schools returned 37,002 pupils, an average attendance of 25,390, and contributions of \$18,776, of which \$4,000 were for benevolences. The income of the Board of Foreign Missions had been \$32,537, exceeding that of the previous year by \$1,271, and the expenditure \$35,079. The missions, chiefly in India, returned 3,600 members, and 400 baptisms during the year, with village schools, boarding schools, etc., in excellent condition. A mission had been established in Bolivia, for which a second missionary had been ordained.

Baptists in the Maritime Provinces.—The fifty-third convention of the Baptists of the Maritime Provinces was held at Amherst, Nova Scotia, beginning Aug. 18. The Rev. J. C. Spurr was chosen president. Among the delegates were several women. An increase of about 800 members by baptism was reported. Efforts had been made to secure a subscription of \$60,000 for the endowment of Acadia College, upon the raising of which a further amount of \$15,000 was expected from Mr. J. D. Rockefeller. Toward this sum \$48,000 had been obtained. The convention, besides its own local work in home missions, aids the mission of Grande Ligne, Quebec, and in the Northwest and British Columbia. The reports from these fields indicated prosperity.

British Baptists.—The tables of the "American Baptist Year Book" give the Baptists in the United Kingdom, 3,037 churches, 2,006 ministers, 864,729 members, and 15,950 baptisms during the year. The annual meeting of the Baptist Union of Great Britain and Ireland was held in London, beginning April 25. The Rev. Samuel Vincent, of Plymouth, presided. The report of the council showed increase in the number of churches, chapels, members, Sunday-school teachers and scholars, pastors in charge (2,606 against 1,955 the previous year), and local preachers (5,021 against 4,838), but the number of baptisms had fallen from 16,113 to 15,950. The total receipts including contributions to the several funds and special contributions, had been £21,078. The association of Huntingdonshire, Cardiff College, 38 churches, and 28 persons had been received into membership during the year. The Board of Introduction had recommended ministers to pastorless churches in upward of sixty cases. The council had appointed a special committee charged with the duty of ascertaining whether candidates should be recognized by the Union as members of the Baptist denomination. A scheme for providing a course of biblical and theological reading for candidates for the pastorate was in course of preparation. A resolution was passed by the meeting declaring that "alike in the case of public elementary schools and of the proposed Roman Catholic university in Ireland there should be strenuous protest against the devotion of public funds to the support of denominational institutions. Baptists are therefore urged to use their utmost influence to prevent the creation and maintenance by Parliament of an Irish Roman Catholic university, and to secure the substitution of unsectarian primary schools controlled by representatives of householders, for denominational schools under clerical control in the villages and towns of England and Wales." Another resolution called on Baptists to give more earnest attention to the necessity for immediate, more general, and more energetic temperance work, and especially commended the discouragement of the traffic in strong drinks and the promotion of temperance principles and practice to the churches and Sunday schools.

The autumnal meetings of the Union, held at Nottingham in the latter days of September, were chiefly devoted to addresses and discussions. A resolution was adopted protesting against the necessity alleged to exist "in thousands of parishes" of nonconformist parents sending their children to day schools where the principles of the Church of England are taught, and demanding that Parliament cease to subsidize schools "in which clerical managers are free to teach, or to employ others to teach, salvation by sacraments, auricular confession to priests, and the sinfulness of attending nonconformist places of worship," and that, pending the establishment of a really national system of education, it take some action with a view to place an

unsectarian school within the reach of every family in the United Kingdom, and to abolish all theological and kindred tests in every elementary school and training college into which state grants of money are paid.

The annual report of the Baptist Missionary Society furnishes the following approximate statistics: "There are 148 missionaries and assistant missionaries wholly supported by the society, 9 superannuated missionaries and 80 pastors of self-supporting churches, of whom 11 are in India and Ceylon and 69 in Jamaica, 843 evangelists and 13 evangelist pensioners. The number of stations is 1,085, and the number of members 53,365. The day schools include 726 teachers and 37,026 pupils, and the Sunday schools 3,428 teachers and 38,483 pupils. The total receipts of the society during the year were £137,709, including £46,932 in hand on account of the Centenary and other special funds, and £8,232 raised for missionary purposes at various stations.

The Zenana Mission had received £9,890 and expended £10,055. It had stations in India, in Bengal, the Northwestern Provinces, Orissa, and the city of Madras, and had maintained famine-relief work in Benares and Agra, and supported missionaries in China, where the mission house at Chouping and the boarding house and premises at Taing-Chu-Fiu had been completed. Its present staff consisted of 62 missionaries in India and 7 in China, with more than 200 native Bible women and teachers.

The receipts for Baptist home missions had been £3,240 and the expenditure £3,699. The churches helped returned 4,413 communicants, with 159 baptized in 1897, an average attendance in congregations of from 5,719 at morning services to 9,728 in the evening, 7,581 young people in Sunday schools and 914 in Bible classes, sitting accommodation for 26,503 persons, and £7,550 raised by the mission churches for various purposes.

The income of the Tract and Book Society had been £1,499 and the expenditure about £160 less. An effort is to be made to obtain £2,000 as a capital fund.

The report of the Baptist Building fund showed that 41 churches had been assisted with loans amounting in the aggregate to £18,052, an increase of £1,042 of the previous year. The Capital fund amounted to £51,692. Applications for assistance amounting to £15,000 were waiting to be considered. Nineteen churches had this year been placed on the fund's "roll of honor," in which are entered the names of those churches which repay the sums granted them before the expiration of the time for which the loans are allowed.

Account was given at the meeting of the Bible Translation Society of a large amount of biblical revision which had been undertaken. It included the completion of the Bengali Bible by Dr. Rouse after four years' labor; progress with the Uriya version of the Old Testament; revision of the Cingalese New Testament; and the printing of a new edition of the Dwalla New Testament.

Reports were made to the meeting of the Baptist Total Abstinence Association that 1,627 Baptist ministers were pledged abstainers, an increase of 128 for the year; that 47 of the foreign missionaries had enrolled themselves; that 209 of the 211 students in the denominational colleges were abstainers; that 207 Bands of Hope had been formed, making the whole number of such bands in connection with the Baptist churches 1,556, and that the income had increased.

Baptists in Germany.—A yearbook called "Statistics" is published in Germany by the Baptist publishing house there. The volume for 1896

represents that the number of baptisms had been larger than during any previous year within the last decade, except one, being 2,121. The actual total increase was, however, relatively larger, and the Baptists in Germany now numbered 27,991, showing an increase of 8,982 in ten years. The work among the young was carried on by societies for young men and young women and in 397 Sunday schools. The Young Men's and Young Women's societies had each a monthly paper published in their interest. The contributions had greatly increased, amounting in 1897 to 18.55 marks, or \$4.50 *per capita*, against 16.29 marks, or \$4 *per capita* in 1892.

BELGIUM, a constitutional monarchy in western Europe. The legislative power is vested in a Senate of half the number of members in the other Chamber elected for eight years, partly by direct vote and partly by provincial councils, one half being renewed every four years, and a House of Deputies the members of which are elected for four years, one half being renewed every two years, by all citizens over twenty-five years of age, under a plural system of voting. An elector can cast a supplementary vote if he possesses freehold property, or if he is thirty-five years old, married, and a taxpayer, and if he has the diploma of an institution of the higher education, or has filled a public office requiring superior intelligence, he is entitled to two supplementary votes, but none may cast more than three votes in all. Failure to vote is a penal offense.

The reigning King is Leopold II, born April 9, 1835, who succeeded his father, Leopold I, the first King of the Belgians, on Dec. 10, 1865. The heir presumptive is his nephew, Prince Albert, born April 8, 1875, son of Philippe, Count of Flanders.

The Cabinet, reconstituted on Feb. 25, 1896, was composed in the beginning of 1896 of the following members: President of the Council and Minister of Finance, P. de Smet de Naeyer; Minister of Foreign Affairs, P. de Favereau; Minister of Justice, V. Begerem; Minister of Railroads, Posts, and Telegraphs and Minister of War *ad interim*, J. H. P. van den Peereboom; Minister of the Interior and of Public Instruction, M. Schollaert; Minister of Agriculture and of Public Works, L. de Bruyn; Minister of Industry and Labor, M. Nysens.

Area and Population.—The area of the kingdom is 11,373 square miles, on which there was a population on Dec. 31, 1896, of 6,495,886, averaging 571 persons to the square mile. There were 3,241,423 males and 3,254,463 females. This population, almost the densest in Europe, is still increasing at the rate of about 1 per cent. per annum. The number of marriages in 1896 was 52,585; of births, 188,533; of deaths, 113,748; excess of births, 74,785. There is of late years a steady excess of immigration over emigration. In 1896 the net immigration was 4,789. The population of Brussels, the political capital, on Jan. 1, 1896, was 531,011, including suburbs; of Antwerp, 267,902; of Liège, 165,404; of Ghent, 159,218.

Finances.—The budget for 1896 makes the total ordinary revenue 388,298,598 francs, of which 25,456,000 francs are derived from property taxes, 20,085,000 francs from personal taxes, 7,400,000 francs from trade licenses, 600,000 francs from mines, 36,246,632 francs from customs, 52,420,297 francs from excise, 19,940,000 francs from succession duties, 19,900 francs from registration fees, 6,500,000 francs from stamps, 5,771,000 francs from various other indirect taxes, 154,000,000 francs from railroads, 6,880,000 francs from telegraphs, 1,590,000 francs from canal and river tolls, 13,160,020 francs from the post office, 1,430,000 francs from navigation dues, 2,718,000 francs from domains and forests, 10,051,900 francs from funds and securities, and 4,149,749 francs from repay-

ments. The total ordinary expenditure is estimated at 385,278,702 francs, of which 114,152,253 francs are for interest and sinking fund of the debt, 4,930,200 francs for the civil list and dotations, 21,517,990 francs for the Ministry of Justice, 2,797,065 francs for the Ministry of Foreign Affairs, 26,378,070 francs for the Ministry of the Interior and Public Instruction, 21,773,694 francs for the Ministry of Agriculture and Public Works, 116,337,880 francs for the Ministry of Railroads, Posts, and Telegraphs, 48,320,375 francs for the Ministry of War, 19,514,515 francs for the Ministry of Finance, 4,917,900 francs for the gendarmerie, 2,743,560 francs for the Ministry of Industry and Labor, and 1,896,000 francs for repayments.

The public debt amounts to the capital sum of 2,328,497,322 francs, 219,959,632 francs paying 2½ per cent., being Belgium's share of the old Netherlands debt, 20,000,000 francs of treasury bonds, and 2,088,537,690 francs raised for public improvements and bearing 3 per cent. interest, which is more than offset by the earnings of the railroads, for the construction of which the chief part of the debt was incurred.

The Army.—Although Belgium is perpetually neutral and inviolable under guarantee of Austria, Russia, Great Britain, and Prussia, signatories of the Treaty of London, concluded on Nov. 15, 1831, a standing army is maintained and formidable defensive works have been erected and are still being erected on the Meuse, besides fortresses on the French frontier and a ring of forts about Antwerp, the chief place of arms and central citadel. The army is raised mainly now by conscription, substitution being allowed. The annual recruit is 13,300 men. The peace footing in 1897 was 3,426 officers and 47,876 men, 51,302 in all, comprising 1,745 officers and 27,800 men in the infantry, 304 officers and 5,760 men in the cavalry, 534 officers and 8,225 men in the artillery, 146 officers and 1,860 men in the engineers, 66 officers and 2,782 men in the gendarmerie, and 631 officers and 1,449 men in the general staff, train, administrative services, military school, etc. There are 204 guns and 9,040 horses for the army, besides 1,845 horses used by the gendarmerie. The war strength of the army is 3,742 officers and 135,656 men, with 25,666 horses. This does not include the civic guards organized in the towns, numbering 42,827 men.

Commerce and Production.—Over 67 per cent. of the area of Belgium is farming land, 17 per cent. forest, 8 per cent. uncultivated, and the rest roads, marshes, rivers, etc. About 22 per cent. of the population is supported by agriculture. The production of wheat in 1896 was 7,238,595 hectolitres; of oats, 8,477,118; of rye, 7,422,135; of barley, 1,445,616; of potatoes, 31,679,940 quintals; of sugar beets, 9,374,551; of other beets, 9,814,386; of tobacco, 5,166,000 kilogrammes in 1895. The production of coal in 1895 was 20,451,000 tons, value 193,357,000 francs; of pig iron, 829,234 tons, value 40,207,000 francs; of manufactured iron, 445,899 tons, value 55,729,000 francs; of steel ingots, 407,634 tons, value 31,018,000 francs; of steel rails, 367,917 tons, value 42,419,000 francs. The value of zinc produced was 38,496,000 francs; of lead, 4,203,000 francs; of silver, 3,430,000 francs. The product of raw sugar was 182,178,000 kilogrammes; of refined sugar, 65,662,000 kilogrammes; of proof spirits, 628,340 hectolitres.

In the general commerce for 1896 the total imports were valued at 3,037,371,700 francs, and exports at 2,720,302,115 francs. The imports by sea were 1,444,331,105 francs and those coming by the land frontiers at 1,593,040,595 francs in value. The imports for home consumption amounted to 1,776,700,000 francs, and the exports of Belgian produce and manufactures to 1,467,900,000 francs. The transit

trade was 1,295,300,000 francs. The values of the principal special imports were: Cereals, 290,903,000 francs; chemicals and drugs, 110,309,000 francs; textile materials, 165,912,000 francs; timber, 89,807,000 francs; gums and resins, 81,102,000 francs; woolen, cotton, and silk fabrics, 63,681,000 francs; oil seeds, 55,532,000 francs; coffee, 52,260,000 francs; hides and skins, 49,743,000 francs; metals, 72,353,000 francs; animal products, 36,166,000 francs; live animals, 56,571,000 francs; dyes and colors, 27,660,000 francs; wine, 39,522,000 francs; coal and coke, 31,153,000 francs; linen, cotton, and woolen yarns, 29,629,000 francs; fertilizers, 18,203,000 francs; machinery, 21,659,000 francs; butter and margarine, 14,603,000 francs; tobacco, 10,012,000 francs. The principal exports of Belgian produce and manufactures were of the following values: Yarns, 103,712,000 francs; coal and coke, 88,255,000 francs; cereals, 65,505,000 francs; machinery and vehicles, 64,826,000 francs; chemicals and drugs, 63,334,000 francs; raw textiles, 81,761,000 francs; textile fabrics, 60,920,000 francs; steel, 62,325,000 francs; skins and leather, 55,829,000 francs; iron, 66,795,000 francs; glass, 78,344,000 francs; meat, 24,758,000 francs; sugar, 54,689,000 francs; animal products, 35,093,000 francs; zinc, 40,148,000 francs; fertilizers, 20,880,000 francs; oil seeds, 22,119,000 francs; minerals, 38,206,000 francs; horses, 31,287,000 francs; bitumen, 26,712,000 francs; colors and dyes, 24,256,000 francs.

The participation of the principal commercial nations in the special commerce of Belgium for 1896 is shown in the following table, giving values in francs:

COUNTRIES.	Imports.	Exports.
France.....	310,611,000	287,539,000
Germany.....	215,395,000	327,258,000
Great Britain.....	206,618,000	291,202,000
Netherlands.....	176,703,000	171,231,000
United States.....	173,650,000	46,912,000
Russia.....	110,047,000	31,267,000
Argentine Republic.....	92,698,000	19,096,000
British India.....	52,965,000	20,993,000
Roumania.....	128,582,000	7,915,000
Sweden and Norway.....	51,879,000	14,250,000
Brazil.....	41,521,000	37,469,000
Italy.....	25,323,000	22,464,000
Spain.....	22,643,000	25,006,000
Peru.....	6,476,000	908,000
Chili.....	42,703,000	7,688,000
Switzerland.....	5,918,000	26,233,000
Australia.....	28,449,000	7,965,000
Egypt.....	2,196,000	11,844,000

Navigation.—During 1896 there were 7,814 vessels, of 7,483,206 tons, entered and 7,812, of 7,487,976 tons, cleared at Belgian ports. Of the total number entered, 4,259, of 2,807,683 tons, arrived from English and 274, of 715,465 tons, from American ports.

The commercial marine of Belgium in 1896 consisted of 5 sailing vessels, of 917 tons, and 53 steamers, of 84,822 tons.

Communications.—There were 2,839 miles of railroad in operation on Jan. 1, 1896, of which 2,044 miles were operated by the Government and 795 by companies. The number of passengers carried in 1895 was 76,937,198 on the state railroads and 22,662,735 on the other lines. The gross receipts of the state railroads were 154,467,350 francs, and operating expenses 90,436,312 francs; the receipts of the companies were 42,167,600 francs, and expenses 20,054,337 francs. The total sum invested in the state railroads was 1,413,057,543 francs.

The Government telegraph lines in 1896 had a total length of 3,955 miles, with 39,000 miles of wire. The number of dispatches in 1896 was 8,668,177; receipts, 6,580,763 francs; expenses, 5,872,298 francs.

The postal traffic in 1896 was 110,566,990 private

letters, 20,597,401 official letters, 45,876,318 postal cards, 91,274,389 packets of printed matter, and 101,518,576 newspapers.

Internal Affairs.—The Catholic Conservative party held its position in the general elections which occurred in May, 1898. The Catholic majority in the Chamber was increased from 70 to 72, and in the Senate the former majority of 36 remained unaltered. The new Chamber was composed of 112 Catholics, 28 Socialists, 6 Liberals, and 6 Radicals. The Flemings, gathering strength with each successive election under the amended Constitution of 1893, carried through the Senate a bill requiring public announcements to be printed in both Flemish and French, and according to their language a larger recognition in court proceedings. The Socialists, who gained in strength by the election, had been very active in strikes and public demonstrations, and in the former Chamber very aggressive. M. Demblon, who on Jan. 21 attacked the president of the Chamber, ex-Premier Beernaert, in the debate over a bill amending the law of mutual-benefit societies, provoked a vote of expulsion. When he declined to withdraw the sitting was suspended, and when he was prevented from entering by the military guard before the door at the next meeting of the House a fracas ensued, in which Socialist Deputies were roughly handled. An order of the day condemning the measures taken by the officers of the House was rejected by 86 votes to 29, with 9 abstentions. The Deputies Roger and Brenez were in the month following condemned to terms of imprisonment for insulting and assailing the burgomaster of Hautrage in a labor conflict.

The Sugar Conference.—The Belgian Government, at the instance of Germany and Austria and with the encouragement of the British Government, invited the governments which were represented in the Sugar Conference at London in 1897 to a new international conference to consider the question of abolishing or reducing by mutual agreement the bounties paid on the export or production of sugar. Since alarm was first aroused in 1884 as to the possible effects of the bounty system the world's production of sugar has doubled, the average cost of production has been halved, and the average price of refined sugar has fallen one half. The increase has been wholly in bounty-fed beet sugar, while the production of cane sugar, to which no bounty is given, has actually declined. The sugar-producing communities in the tropics, especially the West Indian islands, have been threatened with ruin as a result of the Continental bounty system, until the British Government has at last given some slight assistance to its West Indian colonies in the form of grants of money. The British sugar-refining industry at Greenock, London, and Bristol is likewise menaced with extinction. On the other hand the British consumers and the manufactures in which sugar is an important material have greatly benefited, such as jam manufacturing, confectionery and candy making. The statesmen of Belgium, Germany, Austria, and Holland had changed their views as to the economic benefits of bounties, while the French statesmen in control of affairs still clung to the system of export bounties and high internal taxes, the effect of which was to make sugar twice as dear or more in France as in England. Those who advocated the abolition of bounties held that it would be necessary to abolish the excise duty at the same time, believing that the increased demand would supply a natural stimulus to production and offer the natural outlet of an expanding market for the supply produced, since at present, owing to the high price of sugar, the consumption on the Continent is one third what it

is in Great Britain. The governments of Germany, Austria, and Belgium, supported with reservations by Holland, were willing to abandon or greatly modify the bounty system, which cost heavy sums annually to the government treasuries and imposed a heavy tax on the bulk of the population in order to confer a fitful and uncertain benefit on a single class of producers. They could not see their way to carry out this fiscal reform, however, unless France would agree to renounce bounties also, or unless Great Britain would sustain them by imposing a countervailing duty on bounty-fed sugar; otherwise their product would be driven out of the British market and French sugar secure a monopoly of this trade on which all Continental producers largely depend. The Belgian Government decided to reduce to 15 francs a quintal the excise duties on refined sugar from Oct. 1, 1899.

The International Conference on Sugar Bounties met in Brussels on June 7, 1898, under the presidency of the Belgian Premier, M. de Smet de Naeyer. All the delegates were instructed to consider the question on the basis of a total abolition of bounties. The French Government, while ready to abandon direct premiums, made reservations as to the internal regulations of the excise in France.

The president stated that Belgium was ready to adopt the principle of refining under Government supervision as a step that might facilitate a general understanding. The German and Austro-Hungarian delegates declared that their governments were in favor of a complete suppression of the bounties. The Netherlands delegate proposed a gradual suppression. The British delegate declared that the British Government desired the abolition of bounties and was prepared to receive favorably any proposals tending in that direction. The Swedish delegate stated that Sweden was not an exporting country; hence no question of export bounties arose. The French delegate explained that, although France was prepared to consider the suppression of the direct bounty on export granted under the French law of 1897, it had entered the conference under the express reservation that the internal law of 1884, which granted indirect bounties on exports, should remain outside of the scope of the discussions. The Russian delegate made a similar reservation, stating that Russia had accepted the invitation on the express understanding that her internal laws were not to be discussed. When questioned as to the views entertained by Great Britain in regard to a penal clause for the imposition of countervailing duties on bounty-fed sugar, the British delegate maintained an attitude of reserve, stating that the decision of the British Government could not be taken until it was in possession of some definite project of agreement and was in a position to know which powers were willing to become parties to it. The Russian delegate stated categorically that his Government had no intention of altering its existing system, which was pronounced by the Austro-Hungarian representative as equivalent to a bounty on exportation. The French delegate made a statement showing the necessity felt by France for retaining the law of 1884. The Belgian and Dutch delegations proposed two alternative solutions: one that France should abolish the direct export bounty and reduce by one fourth the indirect bounty in each year in which the average export of 235,000 tons should be exceeded, until the bounty entirely disappeared; the other that she should abolish the direct bounty and levy a duty on exported sugar in excess of 50,000 tons equal to the bounty on production. Should France accept either of these suggestions in principle it was contemplated to suggest a similar compromise to Russia. The French delegate, however,

declined to discuss either proposal in the conference, suggesting that the Belgian Government would have a better prospect of effecting a compromise by means of diplomatic correspondence with his Government. The Russian delegate having expressed similar views, it became evident that a prolongation of the conference at the moment would not lead to any general understanding. The final meeting was held on June 25, and it was agreed that the Belgian Government should pursue the subject through the diplomatic channel, and that, if a satisfactory result could be obtained, the conference should be convoked again later. In accepting this proposal the British delegate reserved for his Government entire liberty of action in regard to any measures which the development of the sugar question might render necessary.

The proceedings of the conference showed that Austria-Hungary, Germany, Belgium, and the Netherlands desired a complete abolition of the bounties, and that no opposition to an arrangement to this effect was to be apprehended from Spain and Sweden. France, however, while willing to abolish the direct bounty on export, wished to retain the advantage of the indirect bounty created by her internal law; and Russia declined even to discuss whether her existing system amounts to a bounty on export or not. Germany grants only a direct export bounty, which is about equal to the direct bounty given by the French law of 1897, and, although producing sugar more cheaply than France, she could not be expected to abolish the whole of her bounty while France retains that created by the law of 1884, which is about three times as much as the direct export bounty granted under the law of 1897. Austria-Hungary contended that the Russian system amounted to a bounty, and, unless Russia, her principal competitor in the markets of Italy and the Levant, consented to modify that system, the Austro-Hungarian Government was not prepared to give up its bounties. If no satisfactory modifications or limitations in the French and Russian systems could be obtained, another method of securing the suppression of the bounty system was by a convention between a certain number of sugar-producing states providing for the suppression of their own bounties and engaging that they will impose countervailing duties on bounty-fed sugar or will prohibit its entry altogether. The United States market is already rendered unprofitable by this means, and the sugar-producing states of the Continent of Europe reserve their home markets to their own producers by means of customs duties and internal regulations. The English, and to a rapidly increasing extent the Indian, market has become essential for the surplus sugar production of European countries. It rests therefore in the power of Great Britain, by taking measures to exclude bounty-fed sugar, to bring about the speedy abolition of the bounty system. The indefinite adjournment of the conference caused consternation in the British West Indies, whose sugar industry, Mr. Chamberlain had promised, would not be allowed to be ruined by the operation of hostile bounties, which, according to the report of the British Sugar Commission, were largely contributing to the extinction of this industry.

BISMARCK-SCHÖNHAUSEN, OTTO EDUARD LEOPOLD, von, Prince, a German statesman, born in Schönhausen, April 1, 1815; died in Friedrichsruh, July 30, 1898. He was descended from a noble Brandenburg family, whose members had aided the fortunes of the house of Hohenzollern as soldiers and diplomatists. His own father lived quietly on the hereditary estates at Schönhausen and in Pomerania, and the force and gen-

ius of the son seemed to come from his mother, Luise von Menken, an earnestly religious and highly educated daughter of a statesman. Otto was placed at the age of six in a private school in Berlin, and at twelve entered the Friedrich Wilhelm Gymnasium there. His mother looked after his early education, and had him learn French and English well, having marked him for a diplomatist already. His father inured him to hardy field sports and stimulated a vigorous and healthy physical development and a love of Nature. As a schoolboy he was dutiful and studious. The hardest lessons cost him no great effort, and in no degree damped his redundant vitality. From the Berlin gymnasium he went to the University of Göttingen, where his exuberant animal spirits flourished in the congenial nidus of the aristocratic student corps. Tall and powerfully built, with a constitution of iron, he plunged gayly and recklessly into the excesses of student life, and became the deepest drinker, the readiest swordsman, so wild in his behavior, the author of such extravagant pranks, that he earned for himself the sobriquet of "mad Bismarck." This rollicking, carousing, fighting manner of living did not, however, half fill up the measure of his academic existence at Göttingen and afterward at Berlin. He was a companion of the serious and intellectual students as well as of the careless spendthrifts of the nobility. With the American Motley, for instance, he formed a lifelong friendship. He attended lectures and applied himself to the routine studies well enough to pass a creditable examination, and he delved deep in the study of history and developed into a political thinker of independent views strongly held. At the age of twenty he obtained his degree in jurisprudence and was sworn in as *Ausscultator*, or examiner, in the Berlin law courts. The future German Emperor, then Prince Wilhelm, remarked his stalwart form, the picture of a guardsman, when he was presented at the palace. An example of his audacious wit was relished by other young subordinates of the judicial hierarchy. When the trial judge rebuked him for infringing on his own authority by threatening to pitch out a recalcitrant witness, he retorted a few minutes later by telling the same witness that if he did not answer properly he would have the judge pitch him out.

The wearisome drudgery and routine, the rigid formalities and humble subservience of Prussian officialism could not fetter long his restless spirit. He learned to detest the town and all the conditions of official life. In the barracks of the *Jäger* guards, with whom he performed his military duties, he was more at home, and most of all among the hunting, fighting, drinking nobility of the Alt Mark and Pomerania, who at least led a fresh, untrammelled existence. In sportsmanship and daring and in dissipation and wild escapades he outlived them all, and he was glad enough to quit his petty office in 1839 and take up the free and unsophisticated life of a country nobleman and agriculturist. His help was needed at home, as his father had been a careless financier and a poor farmer, and was in sadly embarrassed circumstances. Young Bismarck applied himself faithfully to the task before him, developed the shrewd business tact and knowledge of men that worked his success later as a diplomatist, the provident calculation and discriminating enterprise that enabled him to control the finances of a nation, the habit of organizing, schooling, and commanding others that gave him his unquestioned and self-reliant authority as the chief of a government. Withal, he acquired a practical knowledge of farming, of soils and crops, planting, fertilizing, draining, which in time, after

the Schönhausen property had fallen to his share by inheritance, in 1845, freed the estate from debt and gave him a comfortable income. When his cares were lifted and the people whom he had trained could manage without his watchful supervision his restless spirit once more preyed upon itself, and to escape weariness he plunged into dissipation, sought an anodyne in deep potations of brown beer and champagne, tried violent athletic exercises as a relief from *ennui*, and indulged to the full in the pleasures and society of the roistering young nobles of the Mark, galloping from castle to castle in tumult of mind like the Wild Huntsman. His torrential passions suddenly turned into their right channel again, and his impetuous yearnings found a rightful object when he fell in love with the accomplished and pious Johanna von Puttkamer. Her parents had no intention or desire to bestow her on the "mad Bismarck," but when he had wrung from her a confession of love he went to them with dauntless assurance, and, clasping his beloved in his arms, announced solemnly that whom God has joined no man should put asunder. Journeying through Switzerland and Italy on the wedding trip, in the autumn of 1847, the young Brandenburger happened in Venice at the same time as his hereditary liege, Friedrich Wilhelm IV, who asked him to dinner, and was much impressed with the political views and theories that he boldly and wittily expounded. The young officers and squires, his former boon companions, had been dreadfully bored by such political monologues over the bottle, but the King of Prussia formed a high opinion of the talents revealed in Bismarck's conversation, and thus by haphazard he was a man marked out for his sovereign's favor before he had set his foot on the political ladder.

Soon after he brought his bride to Kniephoff, the family *Schloss* in Pomerania, his neighbors, sent him to represent them in the United Diet. There seemed to be no political future for this most bigoted and impracticable of Prussian *Junkers*. The whole Liberal movement of the century, with which kings and princes had for thirty years sought to make their peace, was the object of his scorn and reproach. Blind reaction he had elevated into a political philosophy, and absolutism was to him a dogma. Liberal ideas were popular then in Prussia because all Germany looked to Prussian headship for emancipation from the stifling *régime* of Metternich. When Bismarck first entered the Assembly, an appreciative house was listening to a Liberal orator who expounded the ideal of the German nation united by a free Constitution which had inspired the people in the war of liberation. The new Deputy leaped up to reply, and with untrained invective and unpolished satire decried and scoffed the popular hope in constitutionalism. In many such speeches and in the columns of the "*Kreuz-Zeitung*," which he helped to found, he scouted the idea of a Liberal Constitution and popular parliamentary government. Sovereigns wear their crown, he said, free from all conditions, by the grace of God, not by the will of the people. When the revolution triumphed in 1848, and the King himself granted the new Constitution, he retired to the country anathematizing the great cities of Europe, which he thought ought to be razed to the ground, as they were the nurseries of democracy and hotbeds of revolution. An adaptable politician even then, he took his seat in the new Prussian Chamber in 1849 to fight the fight of Conservatism for what could still be conserved after "the Crown itself had scattered ashes on the coffin" of the buried past. The Prussian nobility, who bent the knee to the Czar Nicholas and were willing to accept the dictation of Austria and Russia regarding the internal govern-

ment of the German states, in the hope of checking the German people who offered the imperial crown to the King of Prussia, found in Bismarck their fiercest champion, a positive, convinced, fearless, and enthusiastic advocate, who stood up for what he conceived to be the fundamental principles of the Prussian state, not the mere class interests and social privileges of his order. A parliamentary government of the English pattern appeared to him a chimera when applied to Prussian conditions, in which the throne was the foundation stone of the state and the nobility were the born functionaries of the Government and officers of the army, whose exclusive position could not be impaired without undermining civil order and military discipline. He spurned the thought that a Hohenzollern could accept the imperial crown from the Frankfort Parliament at the cost of introducing into Prussia the entering wedge of parliamentarism by sacrificing a jot of the royal prerogative. He was not a political leader, not in any sense a practical politician, for he was so inflamed by passion when he contemplated the rising tide of democracy, so filled with the arrogant pride of caste, so scornful of parliamentarism in any form, that he disregarded the tactics of his party, and as a free lance trampled upon all the comities of debate, distributed gross insults right and left, and leveled ferocious diatribes against all who gainsaid his irresponsible utterances. All Berlin was astonished therefore when this untamable *Junker* was selected by the King and Premier von Manteuffel in 1851 for the most important and most delicate and political of the diplomatic posts, that of Prussian Minister to the Germanic Confederation.

No sooner had Bismarck taken muster of the Frankfort Diet, whose consequential members he described in a private letter as caricatures of periwigged diplomatists, than the relations of Prussia to Austria, of the Prussian military power to Germany and Europe, appeared in a new light. The conviction grew upon him that Prussia would be able to humble Austria in a victorious war and wrest from her the primacy in Germany, and would have to do so in order to take her fitting place as a great power. When the horizon of international politics spread itself out before his eyes the constitutional difficulties and social interests affecting the internal situation of Prussia were dwarfed into insignificance. From the beginning he lost no opportunity to challenge, either in high questions of politics or in small matters of precedence, the authority and prestige of the Austrian President, then Count Thun. In the polished circles of the old diplomacy his brusque effrontery was as much a novelty as it was in parliamentary life, but he could be complaisant and charming when he would. His ability to drink the other diplomats under the table was the least of his social accomplishments or of his diplomatic arts. His bluff exterior was the foil of insinuating graces, his affected candor of artful reticences and wily schemes that overmatched the diplomacy of Metternich and Schwarzenberg. He scoffed at the ideas of German union and a German policy in the same language that he had used as a Deputy, but with a far different thought and hidden meaning. Austria had many allies in the Germanic Confederation, Prussia but few. In the ripeness of time, by shaping the economic, military, and foreign policy of Prussia to that end, by promoting the expansion of Austrian interests on the Danube and awaiting the psychological moment arising from the Oriental or Italian entanglements, Prussia would be ready for the mortal struggle for the extinction of Austria as a German state and the assertion of the supremacy of Prussia. Hence Bismarck worked to perpetuate the weakness and

confusion of the Confederation, which must eventually "be ended, not amended." Hence he gave years to the task of detaching the friends of Austria one by one and set his face resolutely against every attempt to involve the Germanic Confederation in Austria's external complications. When Austria proposed to make the decisions of the majority of the Diet binding upon the minority with a view of giving the Germanic Confederation greater weight in the councils of Europe, Bismarck upheld the rights of the separate states with the same energy and success as in later times he crushed those rights.

Prussia's obligations to the Confederation were a source of weakness which one day would have to be cured, he foretold, *ferro et igne*. The dreamy politics of word and pen disgusted many men of all political schools, and this explains the success of the man of will and deed when he arose. The Bismarckian method violated every principle of German ideal politics. Making "might before right" his motto, the man of blood and iron set all scruples, consistency, political obligations, at defiance, nor refrained from deception, treachery, or Machiavelian intrigue to advance the interests of Prussia and reach the practical aims he had in view. Traveling back and forth between Frankfort and Berlin, he impressed his views upon the King and Manteuffel with such force that he dictated the whole foreign policy of the Government, and when the Prime Minister demurred, regardless of that official discipline which he mercilessly enforced when he became chief, he went behind the latter's back to the King. He made the rounds of the German courts and gradually gained a like ascendancy over princes and their ministers, gaining one after another over to the policy he had prescribed for Prussia. Russia's friendship he desired Prussia to preserve and cultivate as her chief external buttress, as an alliance that would cost the least, for the eyes of Russia were turned toward the East. He even dallied with Napoleon III, the man of December, whom Berlin Conservatives regarded as the child of the Revolution. In the Crimean War he drove a wedge between Austria and Germany by holding the Confederation entirely aloof. When Wilhelm, the future Emperor, assumed the reins of government in 1858 as Prince Regent and installed a more Liberal Cabinet under Baron von Schleinitz, the latter, who had his own foreign policy, banished Bismarck in 1859 to the St. Petersburg embassy. The new era, however, could not submerge him, nor would he let his aims be forgotten, for he wrote a long memorandum to the Prince Regent, suggesting that Austria be led on to a violation of the articles of confederation so as to prejudice her position before the German states. In the Italian war the cleft between Austria and Germany was opened wider.

In 1862 Bismarck was transferred to the legation at Paris, but only remained long enough to take the measure of Napoleon III and insidiously encourage his dangerous ambition. Gen. von Roon was then at work forging the instrument of Prussia's greatness. He had completed his vast scheme of army reorganization, but the people would not pay the blood tax. Expecting Parliament to refuse supplies, Wilhelm, who had become King, and in opening the Diet had laid down the doctrine that the Prussian monarchy was founded on divine right, and that constitutions were acts of royal grace, in the first conflict with Parliament over the military budget was ready to abdicate. He had thought of Bismarck as the man of the hour, but was afraid of the wrath of the people. The Minister of War, who was in constant communication, had telegraphed to him to come, and when the strong man appeared the vacillating monarch

committed his fortunes into his keeping. On Sept. 28, 1862, Bismarck was appointed Prime Minister and Minister of Foreign Affairs.

When the former champion of absolutism confronted the Chamber as Prussian Premier he provoked a storm that shook the edifice of state. The Moderate Liberals flocked over to the Progressives. The Government had few faithful friends even among the Conservatives, many of whom still relied on the guidance of Austria to rescue Germany from the democratic revolution. Bismarck no longer lived in terror of parliaments and the democracy. Long before he had proposed to win over the middle classes by concessions. He was now a constitutionalist, so far as he was anything. He had long freed himself from dogma, was an opportunist, to whom political doctrines, parties, passions were the armory from which to select his weapons. To make Prussia strong for the coming conflicts had been the aim of his diplomacy, and it was the object for which he was made minister. He did not begin his ministry of combat with rash defiance, although he had promised the King to govern, if necessary, without Parliament and without a budget, and he had no hope of winning over a majority. Still he took great pains to explain the situation and to disclaim all reactionary motives. The ambitious object of the armaments he revealed to Parliament and the world with that audacious frankness for which he became famous. If the Diet would not vote the money he said he would take it where he could get it. For four years the budgetless Government braved the storm of national indignation and weathered crisis after crisis while bringing the army up to a strength and degree of efficiency of modern training and equipment, excelling any army in the world. For the Liberals the principle of representative government was at stake. Bismarck, while overriding the Constitution, made light of the constitutional question. It was the question of Prussia's growth and destiny; and not by speeches and majorities, but by blood and iron, would this have to be settled.

In 1864 Bismarck made the first move in his bold, aggressive game by precipitating the dormant Schleswig-Holstein question upon the startled world. This disarmed the Prussian opposition when it was growing strong and angry enough to hurl him from power, perhaps to doom him to death on the scaffold, which was sometimes as honorable, he said, as on the battlefield. The Danish duchies were a bait to draw Austria into conflict with the Diet and into antagonism toward German interests. To escape the snare the Austrian Government most unwillingly joined in the military occupation, becoming more deeply entangled and placing herself more hopelessly in the wrong thereby. The war was so suddenly begun and so quickly ended that France and England were dumfounded. Napoleon had been lulled by overtures of a Prussian alliance, and Palmerston was just beginning to bluster when the campaign was over and the deed accomplished.

With Austria no compromise was possible after the refusal of King Wilhelm, which Bismarck wrung from him by the sweat of his brow, to join in the Congress of Princes convoked by Austria at Frankfort in the autumn of 1863 for the purpose of considering a comprehensive scheme for reorganizing the Confederation. The Elbe duchies were kept as a convenient apple of discord which would give a *casus belli* at any desired moment while Bismarck during the next two years laid his plans for the final struggle not over the fate of the duchies, about which the Austrians cared nothing, but over the German hegemony and the very existence of Austria as a German state. Many times the rupture was staved off because Bismarck had

not yet made sure of the neutrality of France, whose hopes of expansion in Belgium and Luxemburg he artfully fed; of the friendship of Russia, which had obtained from Prussia a convention for common action against the Poles, and had even suggested a league against Austria and France; of the alliance with Italy, eager to strike from her limbs the last of the Austrian shackles.

In the spring of 1866 Bismarck presented his scheme of reforms for the Germanic Confederation, which was nothing but an ultimatum, an anticipation of the fruits of victory. To substitute for the old Confederation a North German Confederation and a South German Confederation and to exclude Austria from German councils altogether was a solution in which neither she nor her German allies could be expected to acquiesce except by force of arms. On the eve of the war Bismarck had to fight for his own position, threatened by court intrigues, the "feminine undercurrents," which he complained of as embittering his existence and endangering his work on various occasions. The English Crown Princess and the Queen both sought to stay King Wilhelm's hand until the minister carried the day by presenting the alternative of war with him at the helm or peace without him. On June 14, 1866, Austria passed in the Frankfort Diet a motion to mobilize the forces of the Confederation against Prussia.

From the beginning of the Schleswig-Holstein entanglement the Hapsburg Government had floundered helplessly in the toils, while Bismarck, every wire in hand, had planned the political *dénouement* to coincide exactly with the Prussian military preparations. In two days Prussian forces occupied Hanover, Hesse, and Saxony; in three weeks the Prussian army confronted the main Austrian army in Bohemia. The King and Bismarck left Berlin for the seat of war on June 23, and on July 3 they watched the timely arrival of the Crown Prince's troops and the final rout of the brave Austrians at Sadowa.

The North German Confederation thus came into being by blood and iron, and Bismarck, who had received the title of *Graf* after the Danish campaign, became its Chancellor. He was tenderly considerate of the feelings of the vanquished Austrians and Saxons, forgiving and solicitous toward the South German States, but to Hanover, Hesse-Cassel, Nassau, and the free city of Frankfort, which, with Schleswig-Holstein, were annexed to Prussia, he was relentlessly severe and inexorable. In the Reichstag of the North German Confederation, which came together in the spring of 1867, the Chancellor broke away from all his earlier political associations to seek the support of the popular National Liberal party, first stipulating that he should have liberty to keep up the strength of the army. He was even willing to compromise on this point, and accepted a vote for five years instead of ten.

The Austrian war was only the first skirmish in the action which Bismarck had foreseen and prearranged, the issue of which was to be the consolidation of the German nation. A victorious war with France he regarded as even more essential, and at one time he had proposed that Austria and Prussia should compose their differences and join together in wresting Alsace from France so as to make it, as of old, the outpost of the German Empire. After the Austrian campaign it was the French Emperor who was restless and disturbed, and who demanded compensation for the aggrandizement of Prussia. To secure his neutrality Bismarck had promised him the duchy of Luxemburg, probably knowing that Germany would never acquiesce in this arrangement. Every year the

growth of the Prussian army made him more uneasy. And all the time while the army was being augmented, organized, trained, and armed Graf Bismarck was playing his diplomatic game to ensnare France as he had Austria, to place her in the wrong, to catch her when his plans were ripe without allies, without friends or sympathizers. He made secret treaties of alliance with the South German states, fostered friendly relations with Russia, made sure of the neutrality of Austria, cemented the understanding with Italy, and held back for publication at the right moment Napoleon's secret agreement with the King of Holland for the partition of Belgium, which would be sure to alienate the sympathies of England. The *casus belli*, the candidature of a German prince, a Hohenzollern, for the Spanish throne, he held in hand, so that he could draw from France the provocation and the declaration of war as well. When the affair came to a head King Wilhelm almost defeated his scheme. By the Chancellor's advice he had induced the Hohenzollern to withdraw his candidature, but had declined to sign a letter undertaking that it should never be renewed. Then of his own motion he had given some reassuring explanations to Count Benedetti, the French envoy, but refused to discuss matters further in the absence of his minister. A telegram was sent, first telling how the King had declined to pledge himself that the Hohenzollern candidacy should not be revived, then recounting the audiences and explanations that Benedetti thankfully accepted for the consideration of his Government, and last the denial of a further interview. Bismarck asked Moltke if the army was strong enough, and on receiving the answer that Prussia never had a better instrument, he struck out of the dispatch all the account of interviews, explanations, and pacificatory assurances, leaving only the head and the tail, that the King refused to give a pledge and that he declined to receive the French envoy again and had him informed through an adjutant that he had nothing further to communicate to him. The publication of this dispatch stung the people of Paris to madness and drew from France an immediate declaration of war.

The German armies had crossed the Rhine before the Cabinets of Europe had time to deliberate on the situation. The victorious advance was so rapid that there was no opportunity for a European coalition against Germany to be arranged. The Chancellor, in his *Jäger* uniform, accompanied the King to the field, directed the Government from the moving camp, and finally established himself in the palace of Versailles, where on Jan. 18, 1871, the German Empire was proclaimed, and where he dictated to Thiers the hard terms of peace, obdurate to the intercession of the neutral powers.

The imperial union of North and South Germany was an idea of the Crown Prince, but the Crown Prince was not allowed to have anything to do with it. All was Bismarck's work—the negotiations, the terms and conditions, the political constitution. The French republic was also in a sense his work, for he nursed and encouraged this form of Government as repellent to monarchical powers, and hence the least dangerous to Germany. He was astounded and disappointed at witnessing the economic and military recovery of France after the payment of the indemnity of five milliards. Count Arnim, who intrigued with the Clericals and Royalists of France and sought behind Bismarck's back to enlist the sympathies of the Berlin court for the Bourbon cause, the Iron Chancellor crushed without compunction. The founder of the German Empire was made its Chancellor, all-powerful in external and internal affairs. He also received the



100

title of *Fürst*, or Prince of the Empire, and the princely estates of Friedrichsruh and Varzin as the gift of a grateful nation.

The danger of a coalition of powers against the newly founded empire was ever present to Prince Bismarck's mind. To avert this he brought about the *Drei Kaiser Bund*, the league of the Emperors of Austria, Germany, and Russia, ostensibly against the forces of revolution. The policy of Germany was henceforth peace. She did not want another inch of territory. To keep France completely isolated was the chief object of his machinations, and to have the German army always stronger than the French was the policy accepted by the nation. When the spirit of revenge was stimulated by the Boulangist agitators in France Bismarck contemplated another war, but feared to outrage the sentiment of Europe. He egged Russia on to the Turkish war, and then ostentatiously asserted the neutrality of Germany, declaring that the whole Eastern question was not worth the bones of a Pomeranian grenadier. Yet the Congress of Berlin witnessed the zenith of his power and of German influence in Europe. It was as an "honest broker" that he assumed to dispose of the fortunes of nations. The triple alliance of Austria, Germany, and Italy succeeded the league of the three Emperors, and was founded on more real interests. If France attacked Germany or Italy, if Russia attacked Austria or Germany, the combined military forces of the league were bound to repel the aggression. Yet, unknown to the Austrian Government, Prince Bismarck came to a secret understanding with the Czar, binding Germany to neutrality in case Austria began war against Russia in return for Russia's neutrality in case France should attack Germany. This agreement lasted from 1884 to 1890, lapsing when France and Russia began to arrange a counter-alliance against the allied powers of central Europe.

In the first session of the German Reichstag the *Reichskanzler* declared war on the Roman Catholic Church. If in foreign politics he was always earnest, prudent, prescient, if he made use of the most questionable expedients and the most trivial instrumentalities always with a serious purpose and a stern sense of responsibility, in internal politics he seemed to rejoice in the combat rather than in the victory, to fritter away valuable forces in seeking momentary tactical advantages, to confound the great and the small, the lasting and the fleeting. In the consolidation of the national spirit, the unification of laws, education, commerce, etc., the bulk of the nation and the majority of its best intellects worked with him, and the friction, the delays, and the failures were partly due to his methods. He used up the men and dissipated the parties who supported him, while those whom he assailed gained strength. He was too masterful and arbitrary by nature, too aristocratic in principle, too ingrained with the traditions of the old absolutist *régime* to accommodate himself to the constitutional system of representative government and either lead or follow the popular will, too loyal and upright to violate or pervert the laws to which he had set his hand or to attempt to corrupt, coerce, or defraud the electorate. He saw in the Roman Catholic hierarchy an *imperium in imperio*, a stronghold of particularism, and by reason of its vested rights and privileges the chief obstacle in the way of a national system of education and unified administration. These rights and privileges were swept away by the May laws, and the *Kulturkampf* was begun. In the next Reichstag the Clericals returned in double the numbers. He had so wide an acquaintance with the world's political and social forces that he was not tempted to

trust too much in the Old Catholic movement, but the spirit of battle carried him away. The thorough enforcement of state control of primary education and the main lines of his policy were approved by a great majority of the people. The expulsion of the Jesuits was a popular demand. The retaliatory measures taken against individuals degenerated into persecution and provoked needlessly hostility and resistance. Cardinal Ledochowski and numberless less important prelates and clergy were thrown into prison. Newspapers were suppressed, theological professors dismissed, religious services interdicted, church revenues impounded, schools shut, marriages and burials stopped, and the Roman Catholic districts plunged into chaos. When Pius IX declined to receive Cardinal Hohenlohe as German ambassador to the Vatican, Prince Bismarck uttered his defiance, "We will not go to Canossa." He tried to fasten on the Clericals the blame for Kullmann's attempt upon his life in 1874, and made it the pretext for more relentless persecutions. The Pope rejoined with the declaration that the Prussian anti-Catholic laws were null and void. Bismarck retorted with the "bread-basket" law, stopping the stipends of recalcitrant priests. The Centrum grew to be the most numerous party in the Reichstag. First the Progressists, then the Conservatives, and at length, in 1877, the National Liberals demanded the repeal of the Falk laws. In 1878, on the succession of Pope Leo XIII, began his long journey to Canossa, first opening negotiations with the new Pope; then, in 1879, forming a coalition with Dr. Windhorst and the Clericals, dismissing Dr. Falk and calling to his place Herr von Puttkamer to carry out a conciliatory policy; next passing a law in 1880 allowing a partial suspension of the anti-Catholic laws; afterward sending an ambassador to the Vatican in 1882, and in 1883 modifying the May laws; and finally, in 1887, striking from the statute book the last vestige of hostile legislation.

Bismarck's struggle with the Social Democrats was even more ruthless and bitter, and scarcely more successful in its outcome. After the attempts on the Emperor's and his own life in 1878 he carried through the first rigorous anti-Socialist law, provoking the excitable element of the party to take the subversive and revolutionary attitude that he ascribed to the whole. Persecution only attracted interest and sympathy, so that the Social Democrats, denied the rights of free speech and association, gained new adherents constantly by the quiet propaganda that they carried on within the law. He was in the end compelled to relax and finally repeal the exceptional legislation. He even tried to make peace with the Social Democrats, adopted Socialist doctrines himself, and worked out the elaborate system of state insurance against sickness, accidents, and old age. The colonial policy that he adopted and prosecuted with energy in 1884 and subsequent years—establishing protectorates in West, Southwest, and East Africa and in the south seas—was one which he had previously opposed. After embarking in these enterprises, which incurred the antagonism of England, he conducted them with his unrivaled diplomatic skill, and eventually turned British hostility into friendship and support. His system of high protection for German manufactures and agriculture, which encountered the strong opposition of the commercial classes, was almost the only part of his domestic policy that gathered strength, excepting the political and military measures for the protection and consolidation of the German Empire, for which he bent all his efforts to gain a majority. On this ground his step was sure, his perception unflinching, but his methods of attaining his end were calculated to de-

feat it. His parliamentary conflicts revolved not about the question of keeping up or strengthening the army, for which Parliament was never disposed long to withhold the means, but about the control of the public purse. He wanted septennates or other votes for long terms of years in advance, and to gain this he shifted his majority, made deals and concessions, and usually had to be satisfied with a compromise or brought the Reichstag to submission, as had done his sovereign, by threatening to resign. His most mischievous and unscrupulous device for winning consent to an increase in the army was to stir up dangerous foreign complications or troublous questions in order to produce a war scare. In the organization and direction of the Prussian and imperial administrations Prince Bismarck's executive genius and power of accomplishing work brought the system founded by his predecessors up to a degree of perfection excelled by no other governmental machinery on earth.

Bismarck's "old master," whom he had served and loved with the devotion of a feudal retainer, died on March 9, 1888. The relations between the old Emperor and his minister were singular. Wilhelm, who had an obstinate pride in his own judgment and a sense of duty and responsibility which compelled him to weigh and decide every question in his own mind, and who was controlled in an excessive degree by the women of his family, all keen politicians and hostile to Bismarck, suffered every important decision of his reign to be overborne and reversed by his Chancellor, but only after a conflict of wills so earnest and exciting that both were usually verging on a state of nervous collapse when Bismarck at last clinched his exhortations and arguments by threatening to resign. Thus he compelled the King to give up twice his intention of abdicating, to tear up a list of Liberal concessions, to refuse to attend the Congress of Princes at Frankfurt, to intervene in Schleswig-Holstein, to agree to the Austrian alliance against Russia. All the three wars were brought about against the will and desire of the King, who was willing to make concessions to preserve peace when his minister was plotting war. In the Spanish-throne question and all the incidents leading to the French war he was circumvented by Bismarck at every step.

Friedrich, who had seen all the hopes and ambitions of his life thwarted by the Iron Chancellor, felt bound by patriotic duty during his brief invalid reign to trust everything to the guidance of his old enemy, even the matter of his daughter's marriage. Wilhelm II succeeded to the throne on June 15, 1888, when not yet thirty years old. He had been Bismarck's pupil in state affairs, and the old Chancellor thought his place secure with his young master, who at first deferred to him in everything. The younger Wilhelm, however, felt himself a king by divine right, one of the ancient kind, whose will is the highest law, and with a more masterful will than his grandfather, he was equally determined to know all about every question of state and to decide it himself. He found that Bismarck had concealed from him the action to be taken against Geffcken for publishing his own father's diary. He could not get him to tell what steps he intended to take in important matters of foreign policy. He was nettled at Bismarck's interference with his schemes of social legislation and his revision of the labor rescripts. Quarrels occurred between the two, and the Chancellor's stock threat of resigning failed of its usual effect. In 1890 Prince Bismarck found himself confronted with a hostile majority in the Reichstag. His political star was sinking. He held a conference with his old enemy, Dr. Windhorst, being ready to bargain for the support of the Centrum. The Emperor demanded an explanation of

these negotiations, which Bismarck refused to give. The Emperor discovered that there was a secret *entente* with Russia, one repugnant to his candid nature. He insisted on having all the secrets of the Bismarckian diplomacy unfolded to him and was determined henceforth to direct foreign affairs himself. The inexperienced and impulsive young monarch was the last person whom the veteran arbiter of European affairs would trust to decide momentous state questions. Another difference between them was in regard to Wilhelm's consulting with the Prussian ministers regarding the business of their several departments. Prince Bismarck pointed out that this was unconstitutional and insisted on the strict observance of the Cabinet order of 1852, directing ministers to report to the Crown only through the President of the Ministry of State, who was responsible for the entire policy of the Cabinet. After a final breach on a question of German policy in the East, Prince Bismarck made this constitutional question the ground of his resignation of his offices of Imperial Chancellor and President of the Prussian Council of State, explaining that the two could not be separated, and adding that if they could, he could not carry out the Emperor's views of foreign policy without imperiling all the successes of importance that had been achieved in the relations with Russia. His letter of resignation was sent on March 18, 1890, and was accepted by the Emperor with protestations of regret, gratitude, and praise, and the bestowal of the title of Duke of Lauenburg and the rank of general of cavalry.

The fallen Chancellor spent the remaining years of his life at Friedrichsruh and Varzin, not in dignified quiet, but in a state of anger toward the Emperor and his new Chancellor, with which he endeavored to inflame the country, which was indignant at his summary dismissal. He denounced the policy of the Government to the thousands who flocked to pay him homage wherever he went. In his organ the "Hamburger Nachrichten" and in other newspapers inspired by him he criticised and belittled the new Government and the men who composed it, and published the secret treaty with Russia at the risk of being prosecuted for revealing state secrets. He constantly dwelt on the necessity of a good understanding with Russia for the future security of Germany. He lent his name and influence to Agrarian agitators and other malcontents. When he went to Vienna in 1892 to attend his son's wedding the Emperor Franz Josef denied him an audience, and the German ambassador ignored him. In 1896 a formal reconciliation took place between him and Wilhelm II. After his death Dr. Moritz Busch published a volume of his table talk containing many frank disclosures. He left manuscript memoirs of his life.

BOLIVIA, a republic in South America. The legislative power is vested in the Congress, composed of a Senate of 18 members, elected for six years, and a House of Representatives containing 64 members, elected for four years by all adult male Bolivian citizens who can read and write. The President is elected for four years by the direct vote of the people. Severo Fernandez Alonso was inaugurated as President on Aug. 15, 1896. His Cabinet at the beginning of 1898 was composed as follows: Foreign Relations and Worship, Dr. Manuel M. Gomez; Finance, L. Gutierrez; Interior and Justice, Macario Pinilla; Public Instruction, Colonization, Public Works, and Industry, Dr. J. V. Ochoa; War, G. Sanjines.

Area and Population.—The area of the republic is 567,360 square miles and the population, according to an official enumeration, is 2,019,549, not including the uncivilized Indians, numbering about

250,000. The department of the Littoral, containing the ports of Antofagasta and Arica, embracing 29,910 square miles, was retained as a pledge by Chili in 1880, after the war in which Peru and Bolivia were defeated, with a provision for its redemption after ten years.

Finances.—The revenue for the financial year 1897 was estimated in the budget at 6,963,124 bolivianos, and the expenditure at 6,785,596 bolivianos. The foreign debt amounts to 2,000,000 bolivianos, or dollars, the funded internal debt to 4,382,000 bolivianos, and the floating debt to about 3,000,000 bo-

3,200,000 ounces in 1896. About 4,000 tons of tin concentrates, 2,000 tons of tin bars, and 3,000 tons of barilla are exported annually. The total value of the imports in 1894 was estimated at 6,800,000 bolivianos, the principal articles being provisions, hardware, wine and spirits, textile fabrics, and clothing. The value of the exports was estimated at 30,000,000 bolivianos. The export of silver through the port of Antofagasta was valued at £1,914,500 sterling; that of tin at £433,900. The export of rubber is increasing. Other exports are copper, hides and skins, cinchona, coca, and gold.



PALACE OF CONGRESS AT LA PAZ.

livianos. Of the expenditures of 1897 the sum of 1,748,697 bolivianos was devoted to the army, consisting of a standing force of 1,500 men and the National Guard, in which all citizens are bound to serve under the conscription law of 1892.

Commerce and Production.—Agriculture and communications are still very primitive. Wheat, corn, potatoes, and other food products are raised in sufficient quantities to feed the people, and large numbers of sheep and llamas, from whose wool the garments of the common people are made. Some coffee is exported. The silver mines produced 14,500,000 ounces in 1894, but the product fell off to

Communications.—A railroad from Antofagasta extends for 500 miles in Bolivian territory from Ascotan to Ururi. A railroad is projected to connect La Paz with the Peruvian line that runs from Lake Titicaca to the seaport of Mollendo, another to join a line traversing the Argentine Republic, and concessions have been granted for lines running from Ururi to the mining districts of Cochabamba and Potosi.

The length of telegraph lines in the republic is 2,980 miles. The post office in 1896 carried 1,847,009 internal and 528,088 foreign letters, post cards, and journals.

BRAZIL, a federal republic in South America, proclaimed by the Constitutional Assembly on Feb. 25, 1891, at the end of the civil war which followed after the fall of the Emperor Dom Pedro II, who abdicated on Nov. 15, 1889. The legislative power is vested in the Congress, consisting of a Senate of 63 members, representing the different States and the Federal District, and a Chamber of Deputies containing 212 members, elected for three years by the direct suffrage of all adult male Brazilian citizens able to read and write, or paying taxes, or exercising a trade or profession. The President and Vice-President, who, as well as the Senators, are also elected by direct popular suffrage, hold office for four years.

The President of the republic is Prudente de Moraes Barros, who succeeded Marshal Floriano Peixoto on Nov. 15, 1894. Manoel Victorino Pereira was elected Vice-President. The Cabinet at the beginning of 1898 consisted of the following members: Minister of Foreign Affairs, Gen. Dionysio E. de Castro Cerqueira; Minister of Finance, Dr. Bernar-

extraordinary credits to the amount of 60,000,000 milreis because Congress at the last moment refused to agree to proposals for an income tax. In the provisional budget for 1898 the receipts are estimated at 344,197,000 milreis, of which 250,000,000 milreis come from customs duties, 34,000,000 milreis from railroads, 9,000,000 milreis from stamps, 7,700,000 milreis from railroads, 2,000,000 milreis from duties on tobacco, 1,500,000 milreis from lottery taxes, 1,200,000 milreis from the Rio de Janeiro water-works, and 38,797,000 milreis from other sources. The total ordinary expenditures for 1898 are reckoned at 324,570,264 milreis, of which 15,946,378 milreis are allocated to the Ministry of the Interior and Justice, 2,101,812 milreis to the Ministry of Foreign Affairs, 26,873,358 milreis to the navy, 52,374,106 milreis to the army, 88,211,707 milreis to the Ministry of Industry, and 139,062,923 milreis to the Ministry of Finance.

The public debt consisted on Jan. 1, 1897, of a foreign debt of £35,261,700 sterling, equal to 313,447,333 milreis, internal debts payable in gold or



THE PORT OF PERNAMBUCO, BRAZIL.

dino de Campos; Minister of Industry, Dr. Joaquim Duarte Murtinho; Minister of the Interior and Justice, Dr. Amaro Cavalcanti; Minister of Marine, Rear-Admiral Manoel J. Alves Barbosa.

Area and Population.—The area of Brazil is 3,209,878 square miles, and the population in 1890, according to the census returns, still incomplete, was 14,332,530. The population of Rio de Janeiro in 1892 was 522,651; that of Bahia is about 200,000, while Pernambuco has 190,000 and São Paulo 100,000. The number of immigrants in 1896 was 157,948, of whom 96,324 were Italians, 24,154 Portuguese, 11,366 Austro-Hungarians, and 1,070 Germans.

Finances.—The revenue for 1896 was estimated in the budget at 354,634,000 milreis, compared with 270,198,000 in 1895, and the expenditure at 343,536,210, compared with 275,691,671. The budget for 1897 makes the total receipts 339,307,000 milreis and the expenditures 313,196,700 milreis. The actual receipts were about 312,000,000 milreis, and the expenditure 315,444,000 milreis. The Executive opened

currency amounting to 635,698,500 milreis, 371,641,023 milreis of paper money in circulation, 340,714,370 milreis of guaranteed bank notes, 274,278,081 milreis of floating debt, and 6,893,500 milreis of guaranteed railroad bonds, making the total obligations of the Government 1,942,672,807 milreis, paying interest at 4 and 4½ per cent. on the foreign loans and from 4 to 6 per cent. on the internal debt. The States had debts amounting in 1895 to 91,706,736 milreis. The Brazilian Government has reduced its foreign liabilities by the forcible conversion of the 4-per-cent. gold loan of 1890, amounting to 124,655,000 milreis, into 5-per-cent. currency bonds. Holders received a 25-per-cent. bonus with the new bonds, which they were obliged to accept or to receive the face value of their bonds in currency.

The Army and Navy.—The army consisted in 1897 of 4,000 officers and 24,160 men, besides 20,000 gendarmes. Service in the army is obligatory for three years in the line and three in the reserve.

The navy in the beginning of 1898 consisted of

the "Riachuelo" and "24 de Maio," third-class battle ships; 6 monitors and coast-defense vessels; the first-class cruiser "Nichtheroy," since sold to the United States; 3 second-class and 2 third-class cruisers and 10 small cruisers and gunboats; and 8 first-class and 6 third-class torpedo boats. A first-class cruiser, 2 port-defense armor clads, 6 cruisers, 8 destroyers, 6 first-class torpedo boats, and 2 Goubet submarine boats were being built for the navy.

Commerce and Production.—The staple commercial product of Brazil is coffee, of which about 8,000,000 bags of 60 kilogrammes each are produced yearly. In 1896 the Rio crop was 3,000,000 and the Santos crop 4,000,000 bags. In Rio Grande do Sul there were 320,000 cattle slaughtered in 1897. Fruit preserving, tanning, and brewing are also carried on in this State, which is largely peopled by German, Italian, and other immigrants. Pernambuco produces 185,000,000 kilogrammes of sugar a year. Rum and alcohol are distilled in increasing quantities. Cotton is grown in several States, and there are many cotton and woolen mills. Gold mines are worked in Minas Geraes, and in Bahia this metal and silver-lead ore, copper, zinc, manganese, and mercury are found. Diamonds are also mined. Iron exists in many places in vast quantities, but there are no coal mines except in Rio Grande do Sul. The forests of Brazil are of enormous extent and full of valuable products which are not yet accessible, except rubber, of which the Amazon region has been much depleted.

The total value of the imports in 1896 was 481,000,000 milreis; of the exports, 480,000,000 milreis. There were 2,763,720 bags of coffee shipped from Rio de Janeiro in 1895, 4,157,971 from Santos in 1896, and 540,000 from Victoria, Bahia, and Ceará; 7,770 tons of cacao from Bahia; 164,925 tons of sugar from Pernambuco; 12,239 tons of cotton from Pernambuco; and 15,230 tons of rubber from Pará and 6,599 tons from Manaos. From Rio Grande do Sul 9,433,325 kilogrammes of dried beef and 1,141,363 of tallow and 336,773 hides were exported. Other exports are yerba maté, tobacco, timber, and nuts. The principal imports are cotton and woolen cloths, iron and machinery, coal, flour, cattle, beef, rice, codfish, pork, lard, butter, corn, olive oil, macaroni, tea, candles, salt, kerosene, timber, wines, and spirits.

Navigation.—The arrivals at Rio de Janeiro in 1896 were 1,535 vessels engaged in the foreign trade, of 2,469,628 tons; at Pernambuco, 947 vessels, of 1,181,247 tons; at Ceará, 308 vessels, of 236,091 tons; at Maranhão, 174 vessels, of 223,647 tons; at Rio Grande do Norte, 207 vessels, of 51,890 tons.

The merchant marine in 1895 comprised 285 sailing vessels, of 65,575 tons, and 189 steamers, of 75,283 tons.

Communications.—There were 8,086 miles of railroad in operation in 1896, and 5,403 miles were building, 4,670 miles in addition were laid out, and 8,440 miles more were projected. The Federal Government owned 1,832 miles and paid subventions to 2,259 miles, while 3,000 miles were owned or subsidized by States and 995 miles received no subventions. Of the lines under construction the Federal Government was building 667 miles and assisting 3,390 miles, the States were building 961 miles, and 885 miles were being built without subventions. The subventioned lines usually have 6 or 7 per cent. interest on their capital guaranteed by the Government. The total cost of the Government railroads up to 1895 was 257,674,937 milreis. The deficit made up by the Government in 1894 was 11,118,481 milreis. A law was passed in December, 1896, which authorizes the leasing of the Government lines.

The telegraph lines in 1895 had a total of 10,143 miles, with 21,936 miles of wire, all belonging to the

Government. The number of dispatches was 1,268,695. The receipts for 1897 were estimated at 3,600,000 milreis and expenses at 9,844,722 milreis.

The post office in 1893 carried 33,441,000 letters and postal cards and 37,674,000 packets and samples.

Political Affairs.—At the beginning of 1898 financial depression affected the people and the Government and the country was still under martial law, which was extended till Feb. 23, the unrest that followed upon the conspiracy against the Government still continuing. The man who attempted to assassinate President Moraes and mortally wounded the Minister of War, killed himself in prison, hiding the secrets that he might have revealed. Dr. Manoel Pereira, the Vice-President, denying any complicity in the attempted murder of the President, nevertheless refused to appear before the High Court, invoking his parliamentary immunities. The presidential election was held on March 1. Dr. de Campos Saller, of São Paulo, was elected President of the republic and Rosa Silva, of Pernambuco, Vice-President for the term beginning on Nov. 15, 1898. Their majority was very large. In Rio de Janeiro the Opposition abstained from voting. Congressmen who were imprisoned in the penal establishment on the island of Noronha, charged with being implicated in the plot against the President's life, were on April 17 released by order of the Supreme Court, their detention there having been unconstitutional. The Brazilian Congress was opened on May 3. The President hoped to settle the dispute with France regarding the Guiana boundary without resorting to arbitration. The reciprocity treaty with the United States he refused to renew, on account of the great loss caused thereby to the revenue. The President declared the foreign payments of the Government had been kept up with scrupulous fidelity, but only at the cost of enormous sacrifices because of the fall in exchange, the decline in the price of coffee, and the political and international agitation. The deficit for 1897 amounted to 41,526 contos of reis. An arrangement was made with the Rothschilds and London banks for the expropriation of the Government from its immediate financial peril by a compromise with the bondholders. The Minister of Finance proposed to collect all import duties in gold at the exchange rate of 20 milreis to the pound sterling. He also suggested an income tax. In the budget for 1899 revenue and expenditure were made to balance at 346,000 contos. Of the revenue 222,000 contos are from customs. Of the expenditures 68,768 are assigned to the army and navy and 166,000 contos to the Ministry of Finance, including 63,000 contos for loss of exchange and 58,000 contos for the service of loans. The ratifications of an arbitration treaty with France relative to the boundary dispute were exchanged on Aug. 6.

BRITISH COLUMBIA, the westernmost province of the Dominion of Canada.

Politics and Government.—The years 1897-'98 were most important ones in the history of this province. Politics were unusually interesting, and the excitement over general mining, railway, and business development reached high-water mark. The policy and methods of the Hon. J. H. Turner's Government—composed of D. M. Eberts, G. B. Martin, James Baker, and himself as Premier—were objects of severe criticism. The fourth and last session of the seventh Legislature of British Columbia was duly opened at Victoria on Feb. 10, 1898, by Lieut.-Gov. T. R. McInnes, who in 1897 was appointed to this post in succession to the Hon. E. Dewdney. The speech from the throne, outlining the policy of the Government for the ensuing session, contained the following significant passages:

"I am gratified to find that the revenue of the country is expanding to such dimensions as to indicate the rapid development of our undoubted resources in minerals and other natural products. The vast discoveries of gold in the Yukon region will give a great stimulus to commercial enterprise throughout the province, and in view of the urgent necessity of securing an all-Canadian route to the Yukon a measure will be laid before you for furthering that object as expeditiously as possible. The widespread discoveries of mineral wealth in the province indicates the importance of affording increased transportation facilities for their development, and I commend for your careful consideration certain measures which will be introduced tending to that desirable end.

"I have much pleasure in informing you that the efforts you made on former occasions to assist the Crow's Nest Railway have, in conjunction with aid from the Dominion Government, resulted in the active construction of that railway, and there is every prospect of its completion as far as Nelson during the present year. By this means the exten-

sion on Vancouver island, of which Victoria is the capital, and of some jealousy on the mainland, of which Vancouver is the great commercial and business center. The old buildings, which were now replaced, dated from 1859, and were certainly not worthy of the province.

With the opening of the Legislature the political fight began. C. A. Semlin was Leader of the Opposition, and his chief assistant was F. Carter-Cotton. Though Conservatives in Federal politics, they were given during this session and in the ensuing elections the full support of the local Liberal party, led by Hewitt Bertock, M. P. The Hon. D. W. Higgins was re-elected Speaker, however, and much important legislation passed. Of this the loan bill and the redistribution-of-seats bill were the chief items. The former measure, dealing with railway development in the province, was the most important of the kind since 1883. The amount to be borrowed was \$5,000,000. The bill involved the construction of an all-Canadian railway route to the Yukon from the coast to Teslin lake, an estimated distance of 400 miles; from Vancouver and



THE NEW GOVERNMENT BUILDING, VICTORIA.

sive coal fields in the Crow's Nest pass will be made available, and the importance to the mining industry of a good and cheap fuel can not be exaggerated. I am happy to inform you that negotiations are in progress for insuring the early construction of the Victoria, Vancouver and Eastern Railway, which will open up the rich mining camps and agricultural lands.

"It is satisfactory to learn that the abundant harvest of last year has relieved the depression which formerly existed in our agricultural industry. In view of the adaptability of our province for dairy farming, steps will be taken for promoting its development. Our fisheries have maintained their high reputation, and offer a wide range for further expansion. The timber industry has shown marked improvement during the past year.

"The revision of the statutes has been completed, and legislation will be introduced to give effect to the work of the commissioners."

The formal opening of the new Parliament buildings, erected at a cost of \$900,000, took place on this occasion, and was the cause of much congratulation.

English Bluff, via the Fraser river valley and Chilliwack to Penticton, 230 miles; from Penticton to Boundary, 100 miles; from Boundary creek to Robson, 80 miles; and from Bute inlet to Quesnelle, 230 miles, being a grand total of 1,040 miles, all of which projected lines were on the mainland. The railway subsidy act of 1898 provided for a loan of \$5,000,000, half of which had been authorized by the public works aid act of last year, out of which the proposed railways from English Bluff and Vancouver to Boundary creek via Penticton, and from Bute inlet to Quesnelle, were to be subsidized. The new act, which was in amendment of that of last year, continued these subsidies and added to them \$4,000 a mile for a railway from Boundary creek to Robson, 80 miles, and a like amount for a railway from the coast of British Columbia to Teslin lake, 400 miles, which at a subsidy of \$4,000 a mile called for \$4,160,000. The remainder of the contemplated loan will be subject to the control of the House. The measure was vigorously opposed on the ground of increasing public liabilities, but eventually passed by a fair majority.

On April 14 the redistribution bill was introduced. It increased the number of members of the House from 33 to 38, gave Vancouver the same number as Victoria, and distributed the representation in other localities to suit the changing and increasing population. About this time also the provincial Government was advised by the Federal authorities that the alien labor bill, passed in the preceding session and held for the Governor General's approval, would not be put in operation, as it "seriously interfered with international relations and Federal interests." The House was prorogued in May, and dissolved soon afterward.

The elections took place on July 9 and resulted in the return of 19 Government supporters and 19 Oppositionists. A curious complication in the contest was the active participation of the Hon. Joseph Martin, formerly Attorney-General of Manitoba, a new resident in the province. He was elected for Vancouver and at once took a place as one of the Opposition leaders. The Turner Government thus lost its previous majority of 9, and on Aug. 8 the province was startled by the statement that Lieut.-Gov. McInnes had dismissed his ministry and called upon the Hon. Robert Beaven, a member of the Opposition who had been defeated in the elections, to form a new Government. A prolonged constitutional controversy followed. The following extracts from letters written by the Lieutenant Governor to Mr. Turner explain his position in the matter and his reasons for calling in Mr. Beaven instead of Mr. Martin or Mr. Cotton. On July 14, five days after the election, he wrote: "I can not look on the result of the general elections in this province, held on the 9th instant, as other than adverse to your administration and an expression of want of confidence on the part of the people." On Aug. 8 he repeated this opinion, and added that the result of the single Cassiar election "would not reverse the verdict of the electorate," and he expressly declared that in calling for the resignation of his ministers he was "acting on what I consider the verdict of the electorate." Later in the same letter he says: "For, as I would not feel justified in granting you another dissolution and appeal to the electorate, and as, after a careful consideration of the situation, I am convinced that you could not command a majority of the Assembly, I shall not put the province to the delay or to the expense of a special session of the Legislature merely for the purpose of formally demonstrating to you what has already been sufficiently demonstrated to me by the general election." Writing to Mr. Semlin, the Lieutenant Governor said: "From the best information I could obtain, it was made to appear to me that there was no recognized leader of the party since the general election on the 9th ultimo, it being divided into two factions supporting respectively the claims of yourself and Mr. Martin to leadership."

Eventually Mr. Semlin was sent for and formed a ministry as follows: Hon. C. A. Semlin, Premier and Commissioner of Lands and Works; Hon.

Joseph Martin, Attorney-General; Hon. F. Carter-Cotton, Minister of Finance and Agriculture; Hon. J. Frederick Hume, Provincial Secretary; Hon. R. E. McKechnie, M. D., without portfolio.

The new Government has entered upon its duties at an auspicious time. Financially, the province is in a good condition. The revenue has grown from \$821,000 in 1893-'94 to \$1,383,000 in 1897-'98, and out of this all ordinary expenditures have been made and more than \$1,000,000 expended on permanent public works. An indication of the expansion in this direction is seen in the Kootenay district, where a revenue of \$30,000 has grown to one of \$230,000.

Mines and Minerals.—In 1897 the value of the product of British Columbia mines was \$10,455,268, almost exactly \$3,000,000 more than in 1896. To show what strides have been made since 1890 the value of the output for that year—namely, \$2,608,803—must be mentioned. This progress is by no means all to be credited to gold, or even to the two precious metals exclusively, though they did contribute much the greatest part of it, but it is practically all to be set down to gold and silver mining, that is, the whole gain made within the past seven years has been derived from mines yielding mainly gold and silver, but in addition thereto copper and lead. Of the gold output, lode and placer, the value in 1897 was \$2,636,340, against \$1,788,206 in 1896; and of silver \$3,272,836, against \$2,100,689 in 1896; making the total yield of the two precious metals \$5,909,170 in 1897, against \$3,888,895 in 1896. In addition to this increase in the gold and silver constituent of the ores, there is an increase of about \$750,000 to be put down to the lead and copper extracted from the same ores. The whole of this advance springs from the mines of a single district—West Kootenay; and mostly from two divisions of that district—the Slocan and the Trail or Rossland divisions. West Kootenay's yield, which amounted to \$4,002,735 in 1896, rose to \$6,765,703 in 1897. It will serve to emphasize the latter figures to note the fact that as late as 1892 the total output of West Kootenay's mines had not passed \$100,000. Properly to appreciate this growth, we have to take into account the remoteness, almost inaccessibility, of the wilderness in which it has taken place. Of course, the isolation of the Kootenay miners is now a thing of the past, and more perfect connections with the outside world are being developed. An early realization of the wealth there led to the extension thither of the Spokane Falls and Northern Railway, one branch of that road, the Nelson and Fort Sheppard, being pushed into the silver country; another, the Red Mountain Railway, being thrown out to Rossland. The desire for an early entrance into the same promising market impelled the important mercantile interests of Eastern Canada to call for the construction of the Crow's Nest Pass Railway, which is now completed as far as the Columbia river. The following table shows the mineral production in two recent years:

PRODUCTS.	1896.		1897.	
	Amount.	Value.	Amount.	Value.
Gold, placer, ounces	27,201	\$544,026	25,676	\$513,530
Gold, lode, ounces	62,259	1,244,180	106,141	2,122,520
Silver, ounces	3,135,343	2,100,689	5,472,971	3,272,836
Copper, pounds	3,818,556	190,926	5,325,180	266,258
Lead, pounds	24,199,977	721,394	38,841,135	1,890,517
Coal, tons (2,240 pounds)	894,892	2,688,666	882,854	2,648,662
Coke, tons (2,240 pounds)	615	3,075	17,532	89,155
Other materials		15,000		151,600
		\$7,507,946		\$10,455,268

Education.—The twenty-sixth annual report on the condition of the public schools of the province was laid before the Legislature on Jan. 16, 1898. It covered the year ending June 30, 1897. There were 244 schools in operation—4 high, 22 graded, 213 common, and 5 ward. There were 384 monitors and teachers employed, 34 more than in the previous year. The whole number of pupils enrolled was 15,798, an increase of 1,388 over 1895-'96. The actual daily attendance was 9,999.61, an increase of 745.36. The percentage of average daily attendance in the city districts was 71.06, in rural districts 58.81, and for the entire province 63.29. The expenditure from the provincial treasury for education proper during the year was as follows: Teachers' salaries, \$150,949.22; *per capita* grants, cities, \$49,687.80; incidentals, rural districts, \$10,157.28; education office, \$10,016.08; total, \$220,810.38. The cost of each pupil, based on the total enrollment, was \$13.97, and based on the actual daily attendance, was \$22.08. The expenditure by the Lands and Works Department for the construction of schoolhouses, furniture, repairs, and improvements to school property was as follows: Schoolhouses in rural districts, \$10,923.19; furniture, repairs, etc., \$4,947.75; total, \$15,870.94. The total expenditure by the provincial Government during the fiscal year for all purposes of education was as follows: Education, \$220,810.38; Lands and Works Department, \$15,870.94; total, \$236,681.32.

Fisheries.—The yield of the fisheries of British Columbia in 1896 was as follows: Salmon, \$3,142,732; halibut (fresh), \$113,827; fur seal skins, \$501,093; miscellaneous, \$426,347; total, \$4,183,999. The capital invested was \$2,614,578, and the men employed numbered 15,925.

BULGARIA, a principality in eastern Europe, tributary to Turkey, created out of a former Turkish province by the Treaty of Berlin, signed July 13, 1878, giving effect to the independence achieved for Bulgaria through the armed intervention of Russia. Eastern Roumelia, which was made an autonomous province by the same treaty, expelled the Turkish officials in 1885 by the aid of Bulgarians of the principality, and the union of the two Bulgarias was proclaimed. The Sultan on April 6, 1886, signified his acquiescence in the *fait accompli* by a firman confiding the government of the province to the Prince of Bulgaria under the title of Governor General.

The legislative power is vested by the Constitution of 1879 in the *Sobranje*, a single Chamber containing 1 representative for every 20,000 of population, elected by universal adult male suffrage. The reigning Prince is Ferdinand I, son of Prince August of Saxe-Coburg-Gotha, born Feb. 26, 1861, elected by the Great *Sobranje* on July 7, 1887, after the abdication of Alexander of Battenberg, and confirmed by the Porte and the powers in March, 1896.

The ministry constituted on Sept. 7, 1897, was composed as follows: President of the Council and Minister of Foreign Affairs and of Public Worship, Dr. C. Stoiloff; Minister of Finance, T. Theodoroff; Minister of Justice, G. Zgoureff; Minister of the Interior, N. Beneff; Minister of War, Col. N. Ivanoff; Minister of Public Works and Communications, J. Madjaroff; Minister of Commerce and Agriculture, C. Velitchoff.

Area and Population.—The area of the principality proper is 24,360 square miles; of South Bulgaria, or Eastern Roumelia, 13,500 square miles, with a population on Jan. 1, 1893, of 992,386. The population of the whole country on that date was 3,309,816, of whom 2,504,336 were Bulgars, 569,728 Turks, 60,018 Greeks, 51,754 gypsies, 27,531 Jews, 3,620 Germans, 1,379 Russians, and 91,450 of other

nationalities. Sofia, the capital, has 47,000 inhabitants. The number of marriages in 1894 was 26,640; of births, 127,516; of deaths, 92,037; excess of births, 35,479.

Finances.—The revenue for 1897 was estimated at 83,425,019 lei, or francs, and the expenditure at 83,422,659 lei. The receipts from direct taxes were reckoned at 33,731,145 lei, and customs and excise receipts at 31,080,000 lei. Of the expenditures 18,267,992 lei were for the service of the debt, 22,104,000 lei for the army, 9,188,560 lei for public instruction, 8,380,876 lei for the interior, and 4,991,940 lei for finance. For 1898 the total revenue is estimated at 84,516,000 lei, and expenditure at 84,462,000 lei.

The debts consist of 42,063,500 lei of the loan contracted in 1886 for the purchase of the Varna and Rustchuk Railroad, 27,440,000 lei raised in 1888 and 1889, 83,141,000 lei borrowed under the act of 1892, a balance of 11,918,296 lei due to the Russian Government on account of the occupation, and 6,785,204 lei due to the Ottoman Government; total, 171,348,000 lei, besides the tribute of Eastern Roumelia, which never has been paid since the union was consummated, and the Bulgarian share of the Ottoman debt and annual tribute, which have remained in abeyance, the powers having omitted to fix the amounts in accordance with the treaty of Berlin.

The Army and Navy.—About 16,000 of the 40,000 young men who reach the age of twenty each year are drawn by lot to serve in the army for two years in the infantry or three years in the cavalry or artillery. The infantry are armed with Mannlicher repeating rifles, and the cavalry with carbines of 8 millimetres caliber, the artillery mostly with Krupp guns. The nominal peace strength for 1897 was 2,807 officers and 40,234 men, with 7,937 horses; war strength, 126,970 men in the first line and 81,996 in the reserve, or 208,966 in all, with 38,788 animals and 432 guns.

The naval force consists of an armed yacht, 4 gunboats, 7 sloop gunboats, and 3 torpedo boats.

Commerce and Production.—The Bulgarian peasants own their small farms of 1 to 6 acres, with common rights in the woods and pasture lands. They pay tithes of their crops to the Government, still mostly in kind, as under Turkish rule. Wheat is the main crop and the chief export, besides which tobacco, flax, and silk are raised, and sheep and goats are kept, furnishing wool, tallow, butter, cheese, and skins for domestic use and for export. The foreign trade is conducted to a large extent by Greek, Austrian, and Roumanian merchants. The leading imports in 1896 were textile manufactures for 26,457,000 lei, colonial goods for 6,575,000 lei, metals for 8,788,000 lei, timber and furniture for 4,124,000 lei, and machinery for 2,611,000 lei. The exports of grain were valued at 94,089,000 lei; of live animals, 4,247,000 lei. The amount of trade with different countries in 1896 is shown in the following table, giving values in lei:

COUNTRIES.	Imports.	Exports.
Great Britain.....	18,209,007	32,681,662
Turkey.....	9,923,618	22,096,997
Germany.....	8,589,863	20,453,746
Austria-Hungary.....	22,383,969	2,720,863
France.....	3,284,315	13,964,320
Belgium.....	2,226,030	8,516,203
Russia.....	4,329,775	73,839
Italy.....	2,640,683	1,896,354
Roumania.....	2,252,907	415,569
Servia.....	1,043,910	69,916
Switzerland.....	762,793	
Greece.....	355,691	283,617
United States.....	210,377	
Other countries.....	273,320	5,396,016
Total.....	76,530,278	108,739,977

Communications.—There were 600 miles of railroads in 1897. The state telegraph lines had a length of 3,164 miles, with 6,500 miles of wire. The number of dispatches in 1895 was 1,282,525. The post office in that year carried 18,385,000 pieces of mail matter. The postal and telegraph receipts amounted to 2,720,399 lei; expenses, 2,929,791 lei.

Political Affairs.—The understanding between Austria and Russia served to avert any serious disturbance in Macedonia when the Greco-Turkish war afforded an opportunity to the Balkan states to seek to achieve their ambitions. Yet, however correct the attitude of the Bulgarian Government, the party of expansion at Sofia was restless, and became bolder and more excited when the war was over and the Turkish provincial authorities dealt severely with Macedonian revolutionists and Pan-Bulgarian agents who had stirred them to futile sporadic action. The gradual massing of an immense Ottoman military force in Thrace and Macedonia checked the smuggling of arms and seditious publications into Macedonia, discouraged fresh incursions of Bulgaro-Macedonian bands, and effectually restrained the Bulgarian party of action. The diplomatic relations between Sofia and Constantinople were not outwardly ruffled. On Jan. 31, 1898, the Grand Vizier replied to a memorandum of M. Markoff, the Bulgarian diplomatic agent, promising that all persons arrested on mere suspicion in the vilayet of Uskub would be released, that the *râis* would be held responsible for any further acts of violence, and that a military court would investigate. In the vilayets of Kossovo and Monastir also all imprisoned Bulgarians were set free except those who were known to have been implicated in revolutionary designs. After the commission of officers sent to inquire into cases of murder and outrage alleged to have been committed by Turkish soldiers, principally in the vilayet of Kossovo, had begun its investigation a secretary of the British embassy made a tour of inspection in Uskub and found evidences that some of the imprisoned Bulgarians had been horribly tortured, but they had been released before the arrival of the commission and threatened with death in the event of their giving evidence that they had been ill treated. The Porte's apprehensions concerning Bulgaria were allayed by the assurance that the Government would not provoke nor promote any Macedonian movement. Nevertheless the Turkish forces in the adjoining vilayets

continued to be strengthened. The military activity excited in the neighboring Balkan kingdoms by the Bulgarian intrigues in the Turkish provinces acted also as a check on the movement. Roumania began moving troops down to the Danube. Diplomatic relations with Serbia were strained. Meanwhile the tension that had existed between the courts of Vienna and Sofia since the reception of Prince Boris, the Bulgarian heir apparent, into the Orthodox Church was relieved to such an extent that the Emperor Franz Josef received Prince Ferdinand on March 7. Austria-Hungary continued to observe the truce with Russia in regard to Balkan affairs. The influence of Great Britain, which was long so powerful, in conjunction with the former policy of Austria, as to keep the Bulgarians estranged from their Russian liberators, had been completely extinguished. The warm and effusive New Year's congratulations exchanged between Prince Ferdinand and Prince Nicholas of Montenegro, long the only protégé of the Czar in the Balkans, was a sign of the changed relations between Bulgaria and Russia. The complete and triumphant subordination of the Bulgarian Government to Russian influence was proved by the return of the refugee Bulgarian officers who had been forced to fly the country because of the part they had taken in the various pro-Russian conspiracies against Prince Alexander and the regency and later against Prince Ferdinand and his ministers. One after another these officers, upon whom the death penalty would have been inflicted by former governments, were welcomed back to Bulgaria and reinstated in the army and advanced in rank on account of their service in the Russian army over the heads of those who had remained steadily loyal to the Government and impervious to the temptations held out by the insidious agents of Russian diplomatic intrigue. Excessive military and other expenditures created financial embarrassments for the Government, which were temporarily bridged over by a loan of 10,000,000 francs obtained from a French syndicate. Large retrenchments in the military expenditure are promised. In July the Czar signalized the return of cordial relations with Bulgaria by entertaining Prince Ferdinand with the Princess and their son, Prince Boris, at Peterhof. After his return from Russia, Prince Ferdinand visited the Czar's other protégé, Prince Nicholas of Montenegro.

C

CALIFORNIA, a Pacific coast State, admitted to the Union Sept. 9, 1850; area, 158,360 square miles. The population, according to each decennial census since admission, was 92,597 in 1850; 379,994 in 1860; 560,247 in 1870; 864,694 in 1880; and 1,208,130 in 1890. Capital, Sacramento.

Government.—The following were the State officers during the year: Governor, James H. Budd, Democrat; Lieutenant Governor, William T. Jeter, Democrat; Secretary of State, Lewis H. Brown, Republican; Treasurer, Levi Radcliffe, Republican, until his death, April 21, when the Governor appointed W. S. Green, Democrat, to succeed him; Attorney-General, William F. Fitzgerald, Republican; Comptroller, E. P. Colgan, Republican; Superintendent of Instruction, Samuel T. Black, Republican; Surveyor-General, Martin J. Wright, Republican; Superintendent of Printing, A. J. Johnson, Republican; Insurance Commissioner, Andrew J. Clunie; Adjutant General, A. W. Barrett; Chief Justice of the Supreme Court, W. H.

Beatty, Republican; Associate Justices, T. B. McFarland, C. H. Garoutte, R. C. Harrison, W. C. VanFleet, F. W. Henshaw, Republicans, and Jackson Temple, Democrat.

Finances.—The assessment roll was fixed, Sept. 1, at \$1,085,904,868 for all property other than railroads. Railroads were assessed at \$44,457,473, making the total roll \$1,130,362,341. The amount to be raised was \$2,553,602 for the general fund, \$2,314,963 for the school fund, \$141,435 for the interest and sinking fund, and 2 cents on each \$100 for the State University. This requires a tax levy of 48.8 cents.

In San Francisco the amount of taxable property was \$351,784,094, an increase over the assessment of 1897 of \$3,829,264. The assessment of personal property is \$68,695,110, and of real estate \$283,088,984. Of the latter sum \$189,559,834 represents the assessment of land and \$93,529,150 of improvements. The figures show an increase in real-estate valuations of \$4,931,119 and a decrease in personal-property assessments of \$1,101,855.

The University of California has \$558,960 loaned on mortgage and has real property valued at \$446,430, making a total of \$1,025,390, which has been withdrawn from assessment.

The franchises of all corporations having special privileges, such as water, gas, electric light, telephone and street railroad companies, are assessed at \$11,026,400.

Banks.—The report of the Bank Commissioners gives the following summary of the condition of the commercial, savings, national, and private banks in the State Aug. 31, 1898: Resources—bank premises, \$7,105,034.31; real estate for debt, \$17,594,326.88; invested in bonds, \$52,340,237.14; loans on real estate, \$111,283,350.18; loans on stocks and bonds, \$19,041,115.21; loans on other securities, \$7,295,105.59; loans on personal security, \$57,815,271.76;



HENRY T. GAGE, GOVERNOR OF CALIFORNIA.

money on hand, \$31,242,296.76; due from banks, \$23,451,148.01; other assets, \$3,724,645.74; total, \$330,892,531.58. Liabilities—capital paid in coin, \$50,870,258.21; reserve fund, \$28,296,584.14; due depositors, \$232,709,284.16; due banks, \$12,380,739.94; public money, \$177,718.29; other liabilities, \$6,457,946.84; total, \$330,892,531.58. Compared with the figures in the report of July 31, 1897, it shows an increase of assets and liabilities for all the banks of \$28,477,075.96.

Loan Associations.—The annual report of these associations comes down to May 31, 1898. There were through the year 148 in the State; besides these, 5 ceased business and 4 began within the year. Three of the 5 are in course of voluntary liquidation, and 2 are in the hands of receivers. The number of members in all the associations is 37,690, of which 11,074 are borrowers. The report on the 148 associations was as follow: Assets—loans, \$17,627,875.63; arrearages, \$506,122.17; real estate, \$1,761,625.87; cash in hand, \$610,612.71; other assets, \$264,990.34; total, \$20,771,226.72. Liabilities—dues, installment stock, \$13,107,176.69; paid up and prepaid stock, \$1,231,121.75; earnings apportioned, \$4,342,436.79; advance payments, \$65,592.29; reserve and undivided profits, \$450,209.63; unearned premiums, \$234,075.63; overdrafts and bills payable, \$938,895.74; other liabilities, \$401,718.20; total, \$20,771,226.72.

The net profits were \$1,306,575.74, equivalent to 7.28 per cent. of the average amount of loans in force during the year. In 1894 the percentage was 7.77, in 1895 it was 7.19, in 1896 it was 7.11, and in 1897 it was 7.20. Mortgage loans to the number of 2,584, and stock loans to the number of 1,802 were made during the year, the amount represented being \$3,521,824.06, which is 19.97 per cent. of all the loans outstanding. The loans repaid amounted to

\$4,156,450.66, or 19.08 per cent. of all the loans in force.

Education.—The annual apportionment of school money in July distributed \$1,071,637.39 on the basis of the census enumeration of 340,952 children.

In the report of the San José Normal School it was shown that 93 per cent. of the graduates of the preceding year had taught in the public schools of the State. The enrollment for the year was 592.

The University of California received in September a gift valued at \$2,000,000 from Miss Cora Jane Flood, consisting of the Flood residence and tract of about 540 acres, near Menlo Park, Cal., one half interest in about 2,400 acres of marsh land adjacent to the residence tract, and four fifths of the capital stock of the Bear Creek Water Company. The only conditions made by the giver were that the residence and a reasonable area about it, including the present ornamental grounds, shall be kept in good order for fifty years, and that the net income from the property and its proceeds shall be devoted to some branch of commercial education.

The new building for the medical department, one of the affiliated colleges for which buildings have been erected on a hill south of Golden Gate Park, was formally opened in October.

More than 200 students were graduated at the University May 18. Small classes were graduated in December.

At the commencement of Stanford University, May 25, a class of 161 students received degrees. A department of metallurgy and mining engineering has been added to the university. Heretofore the little work done on these lines has been in connection with the department of geology. It is announced that the Stanford residence (see "Annual Cyclopædia" for 1897, page 98) is to become "The Stanford Academy of History, Economics, and Social Science." It is to be the center of the extension work of the university; courses of lectures will be given on the subjects named, and provision will be made for post-graduate study.

Convicts.—The annual report of the warden of the prison at San Quentin for the forty-ninth fiscal year, published in July, shows that the cost of maintaining each prisoner during the year averaged \$10.76 a month. Deducting the earnings of the prisoner from the gross expenses, the net cost of maintenance was \$9.06 *per capita*, or 30 cents a day. The monthly average of prisoners was 1,335 against 1,329 for the previous year. During the twelve months 37 deaths were recorded, of which 5 were executions and 1 a suicide.

The Insane.—At a session of the State Commission of Lunacy, July 19, a committee was empowered to enter into negotiations with the Chinese Six Companies and some steamship company to deport all the insane Chinese now in the State asylums. It was said that there are between 400 and 500 of these insane, and that their exportation to China would save the State annually \$60,000.

The Chinese companies offered to give \$25 a head toward the cost of transportation. As they are obliged to send to China the bones of every dead Chinaman, the shipment of which costs a material sum, the companies are in favor of transporting the insane as a business measure.

Insurance.—The Insurance Commissioner made a written demand, in January, on each of the 34 European fire insurance companies doing business in California for unpaid license fees aggregating \$279,530.98. In the majority of cases the claims ran back twelve years. They are based upon section 1 of the act of March 8, 1885, requiring foreign insurance companies to pay annually 1 per cent on their premiums to the treasurer of every county or

city and county in the State for the use and benefit of the Firemen's Relief fund. The law has been a dead letter because of a decision obtained from the State Supreme Court soon after its enactment. Later the commissioner issued an order revoking the bonds of fire insurance companies outside the State, and the controversy over these matters continued till July, when a compromise was effected by which 25 companies signed a letter in which they agreed to pay to the State a sum equal to 1 per cent of their net premiums collected on risks taken on property within the State during the year 1897, and a similar sum during January of each succeeding year, estimated on the net California business for the preceding twelve months.

Railroads.—During the year ending June 30 a little more than 19 miles of new road were built in California by the Southern Pacific, which completed several branch lines.

The Southern California Railway Company has a capital stock, issued and outstanding, of \$12,824,000, and a total of 471.14 miles of track in operation. It produced a net income of \$341,196 during the year.

The Valley road, with its 277.34 miles of main line and its total length of 318 miles of track, recorded a net income for the year of \$128,753.94. The construction of this road was continued, and in October it had 345 miles of track, when control of it was acquired by the Atchison, Topeka and Santa Fe, giving that road the connecting link to San Francisco.

The California Northwestern Railway Company was incorporated in March. The road is to be built to the redwood forests of Humboldt and Mendocino Counties.

Military.—The records showed that there were in August 5,553 volunteers in Californian regiments at Manila.

In consequence of a quarrel over some trifling matter in a saloon in San Francisco, a mob of several hundred Tennessee volunteers attempted, on Aug. 15, to lynch a young negro crab fisher. They wrecked his mother's home and injured the boy, whose life was saved by the arrival of the major of the regiment, who threatened to shoot the first man that touched the negro, and succeeded in quelling the disturbance with the help of a squad of mounted men from the Fourth Cavalry.

Minerals.—In regard to the gold product of the State, the San Francisco "Chronicle" says: "For the year 1897 the returns of the Director of the Mint showed a material falling off in the gold product compared with the yield of 1896, the total being placed at about \$17,000,000, whereas conservative estimates made by mining men familiar with the yield of the mining counties, and based upon the computed products of each county by its own newspapers, placed the total yield at \$3,000,000 more, that is, at \$20,000,000 in round numbers. Recently the United States Mint Statistician published his estimate for 1897. This places the grand total of gold and silver produced that year at \$16,324,190, or \$1,310,161 less than the year 1896. No one who kept track of the State's mining operations during last year has been willing to accept such a statement as an approximately fair return of the State's output." According to the figures published, the gold product was \$15,871,401 and the silver \$452,789.

The aggregate value of all mineral products in the State in 1897 is given as \$25,142,441, distributed as follows:

Antimony, 25 tons, \$3,500; asphalt, 22,697 tons, \$404,250; bituminous rock, 45,470 tons, \$128,173; borax, 8,000 tons, \$1,080,000; cement, 18,000 barrels, \$66,000; brick, 97,468,000, \$563,240; pottery,

24,592 tons, \$30,290; coal, 87,449 tons, \$196,255; copper, 13,638,626 pounds, \$1,540,666; gold, \$15,871,401; granite, 339,288 cubic feet, \$188,024; gypsum, 2,200 tons, \$19,250; infusorial earth, 5 tons, \$200; lead, 596,000 pounds, \$20,264; lime, 287,800 barrels, \$252,900; limestone, 36,796 tons, \$38,556; macadam, 487,911 tons, \$313,087; magnesite, 1,143 tons, \$13,671; manganese, 504 tons, \$4,080; marble, 4,102 cubic feet, \$7,280; mineral paint, 1,115,280 pounds, \$8,165; mineral waters, 1,508,192 gallons, \$345,863; natural gas, 63,920,000 cubic feet, \$62,657; paving blocks, 1,711,000, \$35,235; platinum, 150 ounces, \$900; petroleum, 1,911,569 barrels, \$1,918,269; quicksilver, 26,648 flasks, \$993,445; rubble, 333,212 tons, \$287,025; salt, 67,851 tons, \$157,520; sandstone, 77,000 cubic feet, \$24,086; serpentine, 2,500 cubic feet, \$2,500; silver, \$452,789; slate, 400 squares, \$2,800; soda, 5,000 tons, \$110,000.

In 1896 the total value of the mineral product of the State was \$24,291,398, and in 1895 it was \$22,844,664.

Wines.—The following figures showing the extent of the wine industry in the State are from the "Hotel and Wine Gazette": "There are 157,000 acres planted to grapes, of which 75,000 acres are devoted to wine grapes, 72,000 acres to raisin grapes, and 10,000 acres to table grapes. The total value of the California viticultural interests, including land, cooperage, cellars, packing houses, etc., is placed at \$85,000,000. The product of sweet wine for 1897 is placed at 5,000,000 gallons against 3,477,200 in 1896, and the 1897 vintage of dry wine at 25,750,000 gallons, the largest in the history of the State. The brandy product was estimated at 2,000,000 gallons; but by the crop summary published in December, the total wine and brandy product was placed at 35,442,468 gallons.

Agriculture.—The farm and orchard products in 1897 were estimated before the jubilee as follows: Wheat, 32,333,000 bushels; barley, 26,309,325 bushels; corn, 2,753,000 bushels; oats, 3,670,590 bushels; wool, 31,500,000 pounds; hops, 8,325,000 pounds; butter, 32,500,000 pounds; cheese, 6,500,000 pounds; beans, 87,462,500 pounds.

The crop summary at the close of the year gives the following statistics of the output of dried fruits and other products, which is in excess of the estimate in almost every instance: Prunes, 97,780,000 pounds; raisins, 93,704,000 pounds; beet sugar, 70,740,000 pounds; fresh-fruit shipments overland, 145,250,000 pounds; cured fruit, not including prunes, 79,100,000 pounds; almonds and walnuts, 12,720,000 pounds; hops, 8,100,000 pounds; honey, 7,878,000 pounds; canned fruit, 1,942,982 cases; tomatoes, packed, 318,553 cases; orange and lemon shipments overland, 15,400 car loads; vegetable shipments by land and sea, 94,704,000 pounds.

The Golden Jubilee.—The fiftieth anniversary of the discovery of gold in the State was celebrated Jan. 24, and was followed by a mining fair at San Francisco. The day was proclaimed a legal holiday by the Governor, and was observed by a great parade, in which were pioneers, native sons, United States soldiers, and various organizations, with floats representing scenes in the history of the State—the aborigines, a ship of the early Spanish navigators, the first Mission church, the raising of the flag, the historic Sutter's mill, early mining processes, old and recent fire apparatus contrasted, the various industries, and others suggestive of the progress of the State and the development of its resources.

The Mining Fair was opened Jan. 29 by the President, who pressed the telegraph key at Washington which applied the force at San Francisco. The fair was open till March 5. Ores from all the principal mines were exhibited, and the successive

modes of separating the metal from the ore were illustrated, from the primitive method of fifty years ago to the improved methods of the present day.

Public Lands.—The receipts of the Land Office in 1897 were nearly \$16,000. This includes the fees on original entries as well as on final proof of claims. Most of the original entries in 1897 were from Monterey County. Mendocino was next in order, and San Luis Obispo third. There are in the San Francisco district about 4,000,000 acres of land as yet unclaimed and open to entry. Of the land open to entry nearly 1,000,000 acres lie in Monterey County. Mendocino County has about 800,000 acres, much of which is available for grazing, and some has valuable redwood timber.

The Yosemite Park.—Report was made to the Secretary of the Interior in July that special forest agents have ejected more than 85,000 sheep from the Yosemite Park, California. The Secretary has heretofore requested a detail of troops to the several national parks in California, but the soldiers so assigned were removed in order to accompany the Philippine expedition. The Secretary of War has detailed an officer and ten men of the Utah Volunteer Cavalry to patrol Yosemite, Sequoia, and General Grant National Parks.

Earthquakes.—San Francisco and the neighboring part of the State were shaken by an earthquake March 30. The water in the bay rose in a wave two feet high, but almost immediately subsided. The shock lasted thirty to forty seconds. The greatest damage was done at Mare Island Navy Yard, where it amounted to \$340,000. That at Vallejo was estimated at \$50,000. A series of shocks were felt at Mendocino and in its vicinity, April 14, and much damage was caused.

Court Decisions.—The primary election law, passed at the last session of the Legislature, providing for holding all primary elections on the same day, and for a special test for voters, and other safeguards, was declared unconstitutional by the State Supreme Court in March.

A case involving the enforcement of the Federal eight-hour law was decided in June, the court holding that the fact that the Government work on which the labor was done was upon land over which the State holds political jurisdiction does not set aside the application of the Federal law.

A decision of the Supreme Court in the appeal of a newspaper from the sentence for contempt passed upon its editor by a judge, affirmed the principle that a newspaper may criticize a judge without danger of a summons by him for such punishment as he is authorized to inflict upon a man who is disrespectful to him in court. The judge had pronounced the paper's report of testimony in a case before him as a "fabrication." The newspaper defended it, and rebuked its accuser, whereupon the justice had the editor brought to the bar and sentenced him, without benefit of jury or of a defense, to a term in jail. The Supreme Court held, among other principles, that a person who is not a party or participant in a case on trial has a right to defend himself against the aspersions of the bench.

By a decision of the Supreme Court in August it was ruled that the nephews and nieces of Leland Stanford, legatees under his will and residents of States other than California, are entitled to the same exemption from collateral inheritance tax as the State Legislature conferred upon nephews and nieces of the millionaire living in California.

San Francisco.—A vote was taken in May on the adoption of the proposed new charter, resulting in 14,386 for and 12,025 against its adoption.

Political.—The earliest State convention of the year was held by the People's party at Sacramento, July 12. Plans for fusion with the Democrats and

Silver Republicans had been proposed and met with favor from a majority of the delegates, who nominated James G. Maguire, a Democrat, for Governor, and agreed to divide the other offices with the other parties. The minority, consisting of those opposed to fusion, withdrew, repudiated the action of the convention, nominated a straight Populist ticket, with T. W. H. Shanahan as candidate for Governor, and issued an address in which they said: "When fusionists speak of success they can mean nothing, except that they may succeed in getting some offices and the emoluments thereof. The People's party was not born for such a purpose and can not survive by such methods. Fusion simply places the party in the hands of Democratic political opponents, and they gain complete control of the fusion organization."

At a meeting of the Democratic State Central Committee in April, a resolution had been adopted providing for a committee "to confer with representatives of the Populist and Silver Republican parties with a view to obtaining concert of action as to the time and place of holding the State conventions of said parties."

The convention met at Sacramento, Aug. 16. The chairman of the "Fusion Committee" read a report, which was adopted, showing how the places on the ticket had been distributed—viz.: To the Silver Republicans, one justice of the Supreme Court and clerk of the Supreme Court; Populists, Lieutenant Governor, controller, Superintendent of Public Instruction, member of the Board of Railroad Commissioners from the Third District; Democrats, Governor, Secretary of State, Treasurer, Attorney-General, Surveyor General, State printer, one justice of the Supreme Court, Railroad Commissioners from the First and Second Districts, members of the Board of Equalization from all four districts. The Populists were given the nominations for Congress in the First, Sixth, and Seventh Districts, and the Democrats took these in the Second, Third, Fourth, and Fifth Districts. The platform declared in favor of free coinage, approved the war with Spain, rejoiced in the obliteration of sectional lines, condemned the war-revenue measure, and praised the war vessels built in California, "insisting that further similar work shall be done here." It favored the "immediate construction of the Nicaragua ship canal by the United States Government, and its ownership, operation, and permanent control by the Government"; urged the State's representatives in Congress to work for liberal appropriations for improving the water ways of the State, and said: "We denounce the persistent and long-continued efforts of the present Secretary of War to prevent the improvement of the public harbor of San Pedro and his persistent efforts to divert the sums of money appropriated by Congress for that purpose to the improvement of the private harbor of the Southern Pacific Company at Santa Monica."

An amendment to the Federal Constitution making Senators elective by the people was recommended, the revival of hydraulic mining when not detrimental to other interests was favored, unwarranted interference of the Federal judiciary was deprecated, the general use of the label of the Allied Printing Trades Council and other union labels was recommended, also the extension of the contract labor laws to Hawaii and all other annexed territory, road improvement, regulation of primary elections by the Australian law, pure food laws, continuance of the existing State text-book system, abolition of the State poll tax, and the constitutional amendment giving self-government to the counties. With reference to railroads the platform said: "We denounce the measure recently adopted by the Fifty-fifth Congress, providing for refunding the

debts of the Central Pacific Railroad Company to the United States Government as an unusual and vicious act of favoritism to a powerful corporation, the effect of which will be to extend for a long period the Southern Pacific Company's monopoly of railroad transportation in California. We also denounce the proposition to further extend the period of payment of said debts. We reiterate the position repeatedly asserted by the Democratic party that in the limitation of freight and fare charges by the State Railroad Commission no allowance should be made for interest on any fictitious capitalization of any railroad companies."

The administration of Gov. Budd was approved, and it was declared that "although the tax levies of the three last years of his administration aggregated over \$1,300,000, under the pledges of the platform upon which he was elected the rate of taxation for 1896 was the lowest in the history of the State, and the rates for 1897 and 1898 would have been still lower, had not the assessed valuation of property been decreased."

Opposition was declared to the surrender of any territory acquired by the war, and to the assumption of any part of the Spanish-Cuban debt.

The ticket, on which the offices were distributed according to the plan given above, follows: For Governor, James G. Maguire; Lieutenant Governor, E. L. Hutchinson; Secretary of State, Robert A. Thompson; Treasurer, William S. Green; Controller, T. W. Maples; Attorney-General, H. P. Andrews; Surveyor General, Irving M. Mulholland; Clerk of the Supreme Court, H. A. McCraney; Justices of the Supreme Court, Walter S. Van Dyke, William M. Conley; Superintendent of Public Instruction, Christian Runkel; Superintendent of State Printing, Everett I. Woodman; Railroad Commissioners, First District, H. M. La Rue; Second District, W. M. Hinton; Third District, J. L. Dryden. Board of Equalization, First District, John P. Dunn; Second District, Thomas Scott; Third District, R. H. Beamer; Fourth District, Thomas O. Toland.

The Secretary of State refused to recognize the fusion of parties on the ballot, but the matter was carried to the Supreme Court, which decided against him. Mr. Shanahan then came out with an address to his party, advising them to vote for Mr. Gage, since, by the action of the fusionists and the decision of the court, the People's party had been put out of existence, for at the next State election it will be impossible to show that it polled as much as 3 per cent. of the vote at this election.

The State convention of Republicans met at Sacramento Aug. 23. The number of delegates apportioned by the call was 789, of whom 57 were to be at large. Among the measures advocated in the platform were the following: Increase of the American navy; the retention of Porto Rico and the Philippines; construction of the Nicaragua Canal; enforcement of the law for the collection of the indebtedness due from the Central and Western Pacific Railroads to the Government; amendment of the immigration laws so as to "prohibit absolutely the filling of the marts of labor in America with laborers from foreign lands" and "the enactment of such legislation regarding Hawaii, Porto Rico, and such other territory as may be acquired by the United States as will protect American workmen against contract Chinese, Japanese, and other contract labor found therein, and will prevent any further influx or extension thereof; and also an exclusion act prohibiting further Japanese and coolie immigration, that such exclusion act prohibit both the Japanese and Chinese now located in the Hawaiian islands from entering the United States"; economy in State government; generous

treatment of war veterans; improvement and protection of river navigation in the State; construction of storage reservoirs for purposes of irrigation by the General Government; laws for preservation of the forests; protection of the dairy interests by laws against imitations; good roads; State aid to district fairs; the use of the Allied Trades printing label on all printing as a guarantee that the work has been done by competent craftsmen under fair conditions; protection against competition by convict labor; the employment of convicts upon the public highways; and "the passage of a law by Congress confining the sale of goods, wares, and merchandise manufactured by convict labor to the State or Territory in which they are produced"; "a law regulating the primary elections of all political parties, to the end that the same protection that was extended by the Australian system to general elections be now extended to primary elections"; liberal support for the State University; legislation in behalf of the mining industry; and the creation of a national executive department of mines and mining. The soldiers and sailors were praised and thanked, the President's policy approved, the nation congratulated on the disappearance of sectional feeling, the Administration commended for its efforts to secure an international monetary agreement, and the refusal to consider the assumption of the Spanish-Cuban debt, the war revenue measure approved, and attention called to "the fact that since the return of the Republican party to power the balance of trade has changed from more than \$400,000,000 against the United States to about \$880,000,000 in our favor." The platform further opposed the doctrine of the single tax, deprecated "the attempt by the Democratic-Populistic fusion party of California to stir up hatred of the judiciary and contempt of laws," condemned "the action of the Democratic Senator of this State, and the present Democratic nominee for Governor, then in Congress, for opposing the annexation of Hawaii and wholly failing to represent the interests or wishes of the people of this State in that regard"; and denounced "the action of the present Governor in vetoing the appropriation for the support of the State printing office as unwise, unnecessary, contrary to the spirit of the law, and injurious to the interests of the State," the inevitable result of which "has been to cripple our splendid State schoolbook system and the common schools themselves."

The ticket follows: Governor, Henry T. Gage; Lieutenant Governor, Jacob H. Neff; Secretary of State, Charles F. Curry; Controller, E. P. Colgan; Treasurer, Truman Reeves; Attorney-General, Tiley L. Ford; Clerk of the Supreme Court, George W. Root; Justices of the Supreme Court, W. C. Van Fleet, T. B. McFarland; Surveyor General, M. J. Wright; Superintendent of Public Instruction, Thomas J. Kirk; Superintendent of State Printing, A. J. Johnston; Railroad Commissioners—First District, F. B. Edson; Third District, N. Blackstock; Board of Equalization—Second District, Alexander Brown; Third District, H. O. Purington; Fourth District, George Arnold.

The following were candidates of the Prohibitionists: For Governor, J. E. McComas; Lieutenant Governor, Robert Summers; Secretary of State, J. W. Webb; Controller, T. L. Hierlihy; Treasurer, C. B. Williams; Attorney-General, J. H. Blanchard; Surveyor General, Green Spurrier; Clerk of the Supreme Court, W. P. Fassett; Superintendent of Instruction, Fanny M. Pugh; Superintendent of Printing, Leroy S. Atwood; Associate Justices of the Supreme Court, T. M. Stewart, Robert Thompson.

The Socialist-Labor ticket was: For Governor,

Job Harriman; Lieutenant Governor, James Andrew; Secretary of State, Emil Liess; Controller, John Robertson; Treasurer, E. M. Dewey; Attorney-General, A. F. Strawn-Hamilton; Surveyor General, J. George Smith; Clerk of the Supreme Court, Lemuel D. Biddle; Superintendent of Instruction, Jane A. Roulston; Superintendent of Printing, A. Conte.

The election in November resulted in the success of almost the entire Republican ticket; but Walter Van Dyke, fusion, was elected Justice of the Supreme Court over Justice Van Fleet. All but one of the Republican candidates for Congress were elected. The Senate will probably stand 27 to 13, and the Assembly 60 to 22 in favor of the Republicans.

Seven constitutional amendments were submitted, and also a proposition for calling a convention to revise the Constitution. The official figures are not at hand, but it appears as if the convention and the first proposed amendment were defeated. Amendment No. 1 was to exempt certain just claims against San Francisco from the operation of that provision of the Constitution requiring such claims to be paid from the revenue of the years in which they were incurred. Amendment No. 2 was intended to change the method of prescribing county governments by classification as at present. Amendment No. 3 was to establish a court of claims. Amendment No. 4 concerned San Francisco only and was designed to do away with the conflict in certain particulars between the new city charter and the State Constitution. Amendment No. 5 provided for the succession, in case of a vacancy in the office of Governor or his absence from the State, placing the president *pro tempore* of the Senate in the line of succession next to the Lieutenant Governor, and the Speaker of the Assembly next. Amendment No. 6 was to revise the school system of the State. Amendment No. 7 was to extend the session of the Legislature to seventy-five days and divide it into two parts.

CANADA, DOMINION OF, a federated group of British provinces in North America.

Parliament and Politics.—The third session of the eighth Parliament of Canada was opened in state by Lord Aberdeen, the Governor General, on Feb. 8, 1898, with a speech from the throne, in which he said:

"I have observed with great pleasure the remarkable advance in the political importance and material prosperity of Canada during the year which has just closed. The loan recently effected has shown that the credit of Canada has never stood so high in European markets, and affords reasonable grounds for expecting that the burdens of the people will in the near future be materially reduced by the substitution of a much lower rate of interest on our indebtedness than that which now exists. The action of the Imperial Government in denouncing the treaties with Germany and Belgium affords most satisfactory evidence of their desire to facilitate your efforts to promote the closest possible commercial relations between Canada and the remainder of the empire, and will, I trust, contribute materially to the development of imperial trade. A contract has been entered into, subject to your approval, for the completion at the earliest possible moment of a system of rail and river communication through Canadian territory with the Klondike and principal gold fields, which it is expected will secure to Canada the larger portion of the lucrative traffic of that country. The bountiful harvest with which we have been favored by a benevolent Providence has contributed greatly to the increase of our prosperity, and I am glad to note that the trade and commerce of the Dominion, and more

especially the amount and values of her principal exports, have increased greatly during the past eighteen months. I observe with pleasure that certain Government contracts recently let contain provisions calculated to suppress the evils of the sweating system."

Three new members of the House, all Liberals, were formally introduced, and then the usual debate on the address in reply to the Governor's speech took place. By an act passed June 13 the following legislation regarding the new imperial preferential tariff came into operation on Aug. 1, in accordance with the Government's policy by which in 1897 a preference was given to British goods in the Canadian market of 12½ per cent. and was to be increased in 1898 to 25 per cent.:

"1. That all articles except wines, malt liquors, spirits, spirituous liquors, liquid medicines and articles containing alcohol, tobacco, cigars, and cigarettes which are the growth, produce, or manufacture of any of the following countries, and are declared to be dutiable upon importation into Canada, may, when imported direct into Canada from any of such countries, be entered for duty or taken out of warehouse for consumption in Canada, on and after the 1st day of August, 1898, at a reduction of one fourth from the general tariff rates of duty: (a) The United Kingdom of Great Britain and Ireland. (b) The British colony of Bermuda. (c) The British colonies commonly called the British West Indies, including the following: the Bahamas, Jamaica, Turk's island and the Caicos Islands, the Leeward Islands (Antigua, St. Christopher, Nevis, Dominica, Montserrat, and the Virgin Islands), the Windward Islands (Grenada, St. Vincent, and St. Lucia), Barbadoes, Trinidad, and Tobago. (d) British Guiana. (e) Any other British colony or possession the customs tariff of which, on the whole, is as favorable to Canada as the British preferential tariff is to such colony or possession.

"2. That manufactured articles to be admitted under such preferential tariff shall be *bona fide* the manufactures of a country or countries entitled to the benefits of such tariff, and that such benefits shall not extend to the importation of articles into the production of which there has not entered a substantial portion of the labor of such countries. Any question that may arise as to any articles being entitled to such benefits shall be decided by the Minister of Customs, whose decision shall be final.

"3. That raw sugar, including sugar drainings or pumpings drained in transit, melado or concentrated melado, tank bottoms, and sugar concrete, the produce of any British colony or possession, may, when imported direct from any British colony or possession, be entered for duty or taken out of warehouse for consumption in Canada at the reduced rate of duty provided in the British preferential tariff.

"4. That the reduction under the preferential tariff shall only apply to refined sugars when evidence satisfactory to the Minister of Customs is furnished that such refined sugar has been manufactured wholly from raw sugar produced in the British colonies or possessions.

"5. That the Minister of Customs, with the approval of the Governor in Council, shall determine what British colonies or possessions shall be entitled to the benefits of the said preferential tariff under clause e of paragraph 1 of this memorandum.

"6. That the Minister of Customs may, with the approval of the Governor in Council, make such regulations as may be deemed necessary for carrying out the intention of the act."

The Minister of Customs, under the power vested in him by the said act, and with the approval of the Governor in Council, has determined that the

following British colonies and possessions are entitled to the benefits of the preferential tariff, viz., British India, Ceylon, Straits Settlements, New South Wales.

Unless these regulations be complied with in every respect, the articles will be subject to payment of the general tariff rates of duty upon importations into Canada.

Sir Wilfrid Laurier, the Premier, in one of the most eloquent speeches ever made in the House of Commons, submitted the following resolution regarding the death of Mr. Gladstone:

Resolved, That the House of Commons of Canada desire to record their profound sense of the loss the empire has sustained in the death of the Right Hon. William Ewart Gladstone. For a period of more than half a century Mr. Gladstone has been one of the most conspicuous figures in the Parliament of Great Britain. Four times Premier for the United Kingdom, his tenure of office was distinguished by the inauguration of sound fiscal and political reforms, of the greatest and most far-reaching character, and he passes away full of years and honor, among a nation's tears, the most illustrious man of his generation. The people of the empire are his mourners, and the House of Commons of Canada lays reverently on his bier this tribute in testimony of the respect and affection with which they regard the great statesman who has departed."

The motion was seconded in a short speech by Sir Charles Tupper, and was passed unanimously.

The franchise bill, by which it was proposed to make the Dominion or Federal franchise similar in each province to that of the local provincial franchise, was vigorously opposed by the Conservatives, mainly on the ground that it would complicate an already complex matter and would place the practical control of the Federal franchise in the hands of the provincial legislatures. The measure passed by a party vote, and, after long discussion in the Senate, where there is a Conservative majority, finally passed there also. So with the bill for a plebiscite or national ballot on the question of prohibition. On June 13 the House adjourned after the Governor General had formally assented, in behalf of the Queen, to a large number of bills, of which the following were the most important:

Respecting the Lake Erie and Detroit River Railway Company.

Respecting the Hudson's Bay and Pacific Railway Company.

Respecting the Ontario and Rainy River Railway Company.

To incorporate the Victoria-Montreal Fire Insurance Company.

Respecting the Columbia and Western Railway Company.

Respecting the British Columbia Southern Railway Company.

Respecting the Queenston Heights Bridge Company.

Respecting the Canadian Pacific Railway Company.

Respecting the Calgary and Edmonton Railway Company.

Respecting the inspection of steamboats and examination and licensing of engineers employed on them.

Respecting the Edmonton District Railway Company.

To incorporate the Cowichan Valley Railway Company.

Respecting the Brandon and Southwestern Railway Company.

To incorporate the Miles Cañon and Lewes River Tramway Company.

Respecting the Hamilton and Lake Erie Power Company.

To incorporate the Klondike and Peace River Gold-Mining Land and Transportation Company (Limited).

To incorporate the Central Canada Loan and Savings Company.

To incorporate the Montreal and James Bay Railway Company.

Respecting the Lake Manitoba Railway and Canal Company.

To incorporate the Miles Cañon and White Horse Tramway Company.

Respecting the Ottawa and New York Railway Company.

To incorporate the London and Lake Huron Railway Company.

Respecting the Vancouver, Victoria and Eastern Railway and Navigation Company.

Respecting the Canada Atlantic Railway Company.

To incorporate the Timagami Railway Company.

To incorporate the Canada Atlantic Transit Company.

To incorporate the Canadian Mining Institute.

Respecting the Nakusp and Slocan Railway Company.

Respecting the Kingston and Pembroke Railway Company.

To incorporate the Windsor and Detroit Union Bridge Company.

Respecting the harbor of the city of St. John, New Brunswick.

To amend the act respecting the protection of navigable waters.

To incorporate the British American Light and Power Company.

Respecting the Montreal American Light and Power Company.

To incorporate the Klondike and Dawson City Bank.

To incorporate the Toronto and Hudson Bay Railway Company.

Further to amend the militia act.

To incorporate the subsidiary high court of the Ancient Order of Foresters.

To provide for the government of the Yukon district.

To incorporate the Dawson City and Victoria Telegraph Company (Limited).

To amend the Indian act.

To amend the acts respecting the Northwest Territories.

To incorporate the Lake Bennett and Klondike Railway and Tramway Company.

To amend the Dominion lands act.

To amend the post-office act.

Respecting the identification of criminals.

To amend chapter xi of the Statutes of 1897, entitled "An Act to restrict the importation and employment of aliens."

To authorize certain contracts with steamship companies for cold-storage accommodation.

Respecting the Saskatchewan Railway and Mining Company.

Respecting the Intercolonial Radial Railway Company.

Respecting the transport contract between her Majesty and the Winnipeg Great Northern Railway Company.

To amend the act to provide for bounties on iron and steel made in Canada.

To provide for abolition of the civil-service superannuation act, and for the retirement of members of the civil service.

To incorporate the Dawson City Electric Lighting and Tramway Company (Limited).

Further to protect the customs and fisheries.
Incorporating the Western Alberta Railway Company.

Further to amend the railway act.

To incorporate the Northern Commercial Telegraph Company (Limited).

To incorporate the Lake Champlain and St. Lawrence Ship Canal Company.

Respecting the Manitoba debt account.

Respecting payment of grants in aid of the construction of public works.

Respecting the northwestern, northern, and north-eastern boundaries for the province of Quebec.

Respecting the prohibition of importation, manufacture, and sale of intoxicating liquors.

Respecting the Montreal, Ottawa and Georgian Bay Canal Company.

Further to amend the weights and measures act.

To repeal the electoral franchise act, and further to amend the Dominion elections act.

To amend and consolidate the Northwest irrigation acts of 1894 and 1895.

Respecting the Great Northwest Central Railway Company.

To incorporate the Three Rivers and North Shore Electric Railway Company.

To amend the customs tariff, 1897.

Further to amend the inland revenue act.

The Governor General.—One of the last acts of the House of Commons was to present the following farewell address to Lord Aberdeen on June 8: "May it please your Excellency, we, her Majesty's dutiful and loyal subjects, the House of Commons of Canada, in Parliament assembled, on the occasion of the approaching termination of your Excellency's connection with this country, hasten to assure you, the representative of her most gracious Majesty, of the unswerving loyalty and devotion of the Canadian people to the Crown and Empire of Great Britain, and to express the hope that you will in person convey these assurances to our beloved Queen. It is our pleasant duty to assure your Excellency of the high appreciation by the people of Canada of the unfailing courtesy and assiduous care with which you have presided over the affairs of the Dominion for the last five years—a period which, it must be no small gratification to your Excellency to know, has been characterized by a marked growth of progress and prosperity; and to testify to the generous and kindly interest which you have displayed in all that pertains to the welfare and advancement of the people, irrespective of distinctions of class or creed. We are also highly sensible of the great degree in which the literature, science, and art of the Dominion have benefited from the deep and practical interest which your Excellency has taken therein. The important services which your Excellency has rendered to this country have been heightened by the zealous co-operation of her Excellency the Countess of Aberdeen, whose untiring efforts to promote the social and moral welfare of our people have endeared her to all classes of the community. We beg to convey the assurance that your Excellency and your distinguished consort will bear from our shores our profound respect and esteem, coupled with our warm wishes for your future welfare and happiness, and we indulge the hope that this country may continue to have in your Excellency a friend and advocate in the councils of the empire."

Lord and Lady Aberdeen sailed from Canada on Nov. 12, after being entertained in Ottawa, Toronto, Montreal, and Quebec. His Excellency was succeeded by the Earl of Minto, who as Lord Melgund and chief of staff to Gen. Middleton had served in Canada during the rebellion of 1885 among the half-breeds and Indians of the Northwest, and who

had previously distinguished himself in the British army in other parts of the world.

Finances.—On April 5 Mr. W. S. Fielding delivered his third annual budget speech. It set forth the existence of a surplus, evidences of expanding trade, and the promised completion of the British preferential-trade policy. The main features of the speech were the announcement of the preferential schedule; the advance of the duty on raw sugar from 50 cents a hundred pounds to 62½ cents, on refined yellow sugar from \$1 a hundred pounds to \$1.08, and the increase on granulated from \$1 to \$1.24 a half hundredweight; and the reduction of the interest on Government savings-bank deposits from 3 to 2½ per cent. The estimate of the revenue for 1897-'98 was \$39,300,000, and of the expenditure \$38,750,000. The minister was able to speak of deposits in the chartered banks as having increased \$19,000,000 in 1897 over the total of 1896, and in Government savings banks more than \$2,000,000. The note circulation of the banks and the Government had also increased by more than \$8,000,000, and the bank clearings by \$128,000,000. The revenue for 1895-'96 had been \$36,618,590, the expenditure \$36,949,142, against a revenue in 1896-'97 of \$37,829,778 and an expenditure of \$38,349,759. The ultimate surplus for 1897-'98 was more than \$1,000,000. The Hon. E. G. Foster, in behalf of the Opposition, criticised the whole statement very strongly, and charged extravagance, chiefly in connection with railway matters, the administration of the Yukon, and the addition to the national debt. The amount voted for administering the Yukon was \$685,576.

Transportation.—During the year the Canadian Pacific Railway, aided by a bonus from the Dominion Government of \$11,000 a mile, practically completed a branch line through the Rocky mountains, 340 miles from Lethbridge, Northwest Territory, into and over the Crow's Nest pass to Nelson, British Columbia, thus opening up the great Kootenay mining district, and providing cheap coal for its smelters. Arrangements were also announced, in the president's speech at the annual meeting, for a hundred-mile extension into the Boundary creek district. In connection with this latter mineral region, lying along the international border, Mr. Corbin proposed to build a line from the American side in order to tap its wealth. A prolonged contest took place at Ottawa between his friends and the Canadian Pacific Railway interests, but the latter eventually won, and the Corbin road was not chartered. The Ontario and Rainy River Railway is to run from a point near Port Arthur through the Lake of the Woods gold region, to connect with the Manitoba and Southeast Railway from Winnipeg. About 2,200 miles of railway were projected, with every probability of success. But the central railway question of the year was that of an all-Canadian route to the Klondike or Yukon. The problem was, to make such arrangements as to obtain a fair share for Canadian merchants and cities of the immense trade which was developed with that far-away and inaccessible region—a trade at first chiefly in American hands. Accordingly, and without consulting Parliament, under the belief that great haste was essential, the Government accepted a contract with Messrs. Mackenzie & Mann by which a line is to be built from navigable waters of the Stickeen river in British Columbia, at or near the mouth of Telegraph creek, Glenora, or the mouth of Clear Water river, thence running northward to the navigable waters of Teslin lake, about 150 miles, on or before Sept. 1, 1898; provided that the said railway shall be the property of the contractors, but shall be subject to inspection and approval by an engineer to be named by the

Minister of Railways and Canals before being accepted as complete by the Government; and provided that the grant of land shall not be made upon a larger mileage than the Minister of Railways considers reasonably necessary for traversing the distance between the terminal points. On its part the Government gave the company a monopoly for five years, a preference for ten years in the construction of other lines, freedom from taxation for ten years, and 25,000 selected acres of land in the district traversed for every mile built. Mr. Blair, Minister of Railways, introduced the measure on Feb. 8, and after much stormy discussion it passed the House; but it was finally rejected by the Senate on the ground of granting too much in monopoly and in valuable lands.

The Canadian Pacific Railway in 1897 earned \$20,822,974, of which \$4,941,486 was from passengers, \$13,036,790 from freight, and \$2,844,698 from express. The Grand Trunk earned \$16,977,313—\$4,556,333 from passengers, \$11,167,317 from freight, and \$953,663 from express. The total earnings of all Canadian railways were \$52,353,277, and the total expenses \$35,168,666. The expenses of the Canadian Pacific Railway were \$12,198,992, and its train mileage 14,364,299. The expenses of the Grand Trunk Railway were \$11,363,569, and its train mileage 16,237,314. The capital invested in Canadian railways was \$921,858,232, an increase of \$22,000,000 in the year. The mileage in operation at the end of 1897 was 16,550. During the year 807 persons were injured by accidents, and 213 were killed. The increase in Government and municipal railway bonuses in 1897 was \$3,131,830.

The following particulars indicate the work of the Government lines during the year, including the Intercolonial, the Prince Edward Island Railway, and the Windsor branch of the Intercolonial. These lines have a total length of 1,388 miles. On the Intercolonial 1,145 miles were in operation, earning \$2,366,028.02, with working expenses of \$2,925,968.67. During the year there was an addition of \$149,112.62 to the capital account expenditure, making a total chargeable to capital on the whole road as amalgamated of \$55,416,157.15. For increased accommodation at Halifax there was \$22,274.97; for the branch from Windsor Junction to Dartmouth, \$37,206.44; for increased accommodation at Moncton, \$29,877.32; and for rolling stock, \$14,996.04. Passenger traffic earnings were \$979,005.57, an increase of \$7,579.31; freight traffic, \$1,687,050.42, a decrease of \$101,762.76; mail and express produced \$199,972.03, an increase of \$2,571.37. The earnings per mile were \$2,508.08, a decrease of \$86.80. The Windsor branch, 32 miles, extending from Windsor Junction to Windsor, Nova Scotia, is operated by the Dominion Atlantic Railway Company, which pays all charges to traffic workings, being allowed two thirds of the gross earnings, the Government taking the remaining third and assuming all cost of maintenance. This agreement was made in December, 1892, and extends for a further term of twenty-one years. The Government earnings amounted to \$40,603.23, an increase of \$4,041.40. Maintenance expenses amounted to \$10,211.04, a decrease of \$5,655.42, leaving a balance of profit of \$29,782.19 in favor of the Government.

Prince Edward Island Railway is 211 miles long. The total cost of road and equipment chargeable to capital account was \$3,750,565.38. The gross earnings for the year amounted to \$153,443.13, an increase of \$6,996.50. The working expenses were \$240,459.90, the overexpenditure being \$87,046.77. The Prince Edward Island Railway carried 121,498 passengers, a decrease of 1,068. The freight carried was 52,151 tons, an increase of 5,756. Passenger receipts were \$62,695.07; freight, \$69,872.66; mails,

express, etc., \$20,875.40. The Government also operated the Baie des Chaleurs Railway in Quebec during the winter of 1896-'97, the results from December to May showing an expenditure of \$18,679.97; and gross earnings of \$6,725.08. The road was transferred back to the company on May 31, 1897.

Militia and Defense.—The total expenditure of this department for the year ending Dec. 31, 1897, was \$2,407,050. Of this total, the chief items were as follow: Pay of staff, permanent corps and active militia, including allowances, \$358,897; annual drill of the militia, \$430,165; salaries and wages of civil employees, \$67,868; military properties, works, and buildings, \$108,092; warlike and other stores, \$39,666; clothing and necessaries, \$232,166; provisions, supplies, and remounts, \$115,899; transport and freight, \$43,098; grants in aid of artillery and rifle associations, and bands and military institutes, \$54,950; Royal Military College of Canada, \$59,616; Dominion cartridge factory, including free ammunition for rifle-league competitions, \$58,492; defenses, Esquimaux, British Columbia, Dominion contribution toward capital expenditure for works and buildings, and pay and allowances of a detachment of Royal Marine Artillery or Royal Engineers, \$45,119; capital account—arms, ammunition, and defenses, \$745,964.

During the year Lee-Enfield rifles were issued to all the city battalions, and also to the rural battalions as they were able to provide suitable armories. A representative contingent of 200 men of the militia was sent to England to represent the force at the Queen's diamond jubilee, and medals were granted by the Imperial Government to those who took part in quelling the Fenian raid troubles of 1866 and in the Red river expedition of 1870. Another important step was taken in the arrangement by the Imperial and Canadian governments for the interchange between England and Canada of some companies of the regular army forces respectively—an experiment which was found to be successful and is to be extended. Lieut.-Gen. A. G. Montgomery-Moore was succeeded in command of the imperial forces in Canada by Lieut.-Gen. Lord William Seymour, and Major-Gen. Gascoigne in command of the militia by Major-Gen. E. T. H. Hutton, C. B. In August, by arrangement between the Imperial and colonial governments, a royal commission, composed of Major-Gen. Leech, C. B., Lieut.-Col. Dalton, Royal Engineers, Capt. White, R. N., and Col. Lake, Quartermaster General of Canada, was appointed to inquire and report upon the defenses of Canada, and as to what might be done to improve the position of affairs locally, and bring about a closer connection between the British and Canadian forces.

Postal Service.—The progress in this department of the Government during the years 1897-'98 was very pronounced under the new Postmaster-General, the Hon. William Mulock. When he took office, July 13, 1896, the Post Office Department was conducted at an annual loss of \$781,152. In the first year of his administration he reduced the deficit to \$586,539, and now but \$46,000 of it remains, so that there has been a total reduction in less than two years of \$734,513. New offices have been opened, many of them in remote parts of the country, and in other places a more frequent service has been given. The railway mail service has been re-organized and placed under a controller. The public interest has been served by the decentralization of the dead-letter office, a measure which also enabled the staff to be reduced by 14. A postal-note system has recently gone into operation. The number of miles of daily travel in June, 1897, was 312 greater than in June, 1896, while the cost was less. During the year ending June 30, 1897, mail con-

tracts which had been costing \$381,237 were put up to tender, and new contracts were obtained for the performance of the same service for a period of four years at an annual cost of \$277,800. But the most noteworthy achievement was the arrangement, after long discussions between the British Postmaster-General, the Duke of Norfolk, and Mr. Mulock, of an imperial penny-postage system, which in time is intended to apply to all the countries of the British Empire, and will go into operation as between Canada and Great Britain on Christmas Day, 1898.

Trade and Commerce.—The total trade of Canada for the fiscal year 1897-'98 was \$304,091,720, against \$257,168,862 in the preceding year. The exports were \$159,485,770, and the imports \$140,305,950. The dutiable goods imported were \$84,126,000, and the free goods \$56,178,000. The duty collected was \$21,956,059, an increase of \$2,000,000 in the year. From Great Britain \$32,827,000 worth was purchased, or \$3,500,000 more than in 1897; and to Great Britain products were sent valued at \$104,787,000. To the United States \$41,122,000 worth was exported, and from the republic the imports amounted to \$86,587,000. The following table gives the total Canadian exports by countries in 1897-'98:

PRODUCTS.	Great Britain.	United States.	Other countries.
Mines	\$215,402	\$14,052,191	\$426,461
Fisheries	4,894,270	2,992,538	3,157,169
Forest	16,167,106	9,350,174	1,525,808
Animals	41,066,243	4,657,966	420,329
Agriculture	37,441,768	1,331,083	4,954,917
Manufactures	5,016,671	3,745,681	3,069,410
Miscellaneous	65,055	369,913	20,971
Coin and bullion	39	4,623,010	

The ensuing table shows the total trade between Canada and the United States in certain recent years, according to the returns of the United States Bureau of Statistics:

YEARS.	From Canada to the United States.	From the United States to Canada.
1893	\$37,777,463	\$46,794,331
1894	36,790,916	56,064,094
1895	36,574,327	52,854,769
1896	40,787,565	59,687,921
1897	40,309,371	64,928,921

Agriculture.—In December, 1896, the Hon. Sydney Fisher, Dominion Minister of Agriculture, visited Washington, and early in 1897 a clear and definite arrangement was made between Canada and the United States regarding mutual quarantine regulations affecting animals and live stock. The following summarizes the arrangement: "Each country to accept the veterinary certificates of the other, but only from inspectors who are regular graduates of recognized veterinary colleges. The chief of the Bureau of Animal Industry and the chief inspector of stock for Canada will inform one another of any outbreak of contagious diseases in either country. They will also inform one another of the discovery of any disease in animals imported from either country. A quarantine of ninety days shall be enforced by both countries upon all cattle imported from Europe or from any country in which contagious pleuro-pneumonia is known to exist; a quarantine of fifteen days shall be enforced upon all ruminants and swine imported from countries in which foot-and-mouth disease has existed during the six months preceding such importation; and a quarantine of fifteen days shall be enforced upon all swine imported from all countries other than the United States and Canada. Animals shipped to either country for exportation

or other purposes shall be subject to all the local regulations applying to the animals of that country."

In 1897 the agricultural products exported by Canada amounted to \$17,982,646, and animals and their products to \$39,245,252. In the ten months ending April 30, 1898, the exports of agricultural products were \$28,774,048, and of animals, etc., \$38,910,596, showing an enormous increase over the preceding year. The crops were good all over Canada in the summer of 1898.

Prohibition and Temperance.—In accordance with the promise of the Premier in the elections of 1896, a vote was taken throughout the Dominion on the question of the total prohibition of the manufacture and sale of spirits and intoxicants. The vote took place on Sept. 29, 1898, and resulted in a comparatively small total majority for prohibition in a small popular vote. Quebec gave a very large majority (90,000) against, while all the other provinces gave small majorities in favor of it. Sir W. Laurier declared soon afterward that the result left the situation much as it was before the vote was taken. The popular opinion seems to be that the total majority was not sufficient to warrant the Government in proposing or enacting special legislation. The vote polled was 542,956 out of 1,233,637 available voters. For prohibition there were 278,434, against 264,523. Some years ago the Royal Commission on Prohibition calculated the drink bill of Canada, on the average retail prices, at \$39,879,854 per annum. This does not allow for the weakening of spirits by water, which, the commissioners say, it is well understood is largely done. They reported, therefore, that the actual drink bill would be undoubtedly in excess of the sum named, or, to put it in round figures, something more than \$40,000,000 a year. The calculation was made on the basis of the consumption of 1893. The first cost is placed at \$15,030,064, including the duty, leaving \$25,000,000 to pay for its distribution and yield a profit to all who handle it. The commission found that more than 21,600,000 gallons of stimulants were consumed by Canadians, costing as follows: Spirits, 3,809,596 gallons, \$8,728,563; malt liquors, 17,355,487 gallons, \$8,368,145; wine, 511,626 gallons, \$933,356; total, \$18,030,064. It was estimated that of this \$11,158,683 represented domestic liquors, and \$3,871,381 imported. A more recent calculation, which, however, agrees in the main with the foregoing, has been made by George Johnson, the Government statistician. His calculation, which is based on the consumption of 1896, places the drink bill for that year at \$35,393,064, or \$6.90 per head for every man, woman, and child in Canada. He places the drink bill for 1896 at the following figures: Spirits, \$15,716,374; wine, \$1,370,886; beer, \$18,305,064. By applying Mr. Johnson's method to the official returns for 1897, the last year reported upon, it is seen that the drink bill went up considerably and kept pace with the estimated growth of population.

The liquor taken out of bond for consumption in 1897 represented, when retailed, \$7.73 a head for every man, woman, and child in Canada. But an unusually large quantity of spirits was ex-warehoused on account of the prospect of increased duties. The figures computed by the Inland Revenue Department show that since Confederation (1867) the consumption of spirits and wine has steadily declined in Canada, whereas the people have taken more freely to beer drinking.

Relations with the United States.—The war with Spain brought about a very general expression from the press and public men in Canada of sympathy with the American position and policy. This was proved practically by the issue in the Carranza

and Du Bosc matter, when the Spanish envoys who proposed to make their residence in Canada during the war were ordered by the Canadian Government to leave the country. A letter from the Premier to the legal adviser of the Spaniards in Montreal indicated the line of action taken. He said: "The Secretary of State of the United States of America has given communication to Sir Julian Pauncefote, her Majesty's ambassador at Washington, of the original letter addressed by Señor Carranza from Montreal, on the 26th day of May last, to the Spanish Minister of Marine, and placed in his hands a photographic copy of the same, which Sir Julian Pauncefote has transmitted to the Canadian Government. The letter of Señor Carranza unequivocally states that he has been left in Canada to receive and send telegrams, and to look after the spy service, which service he was then establishing. The action of Señor Carranza is a violation of the laws of the land, and I have therefore to request Señor Carranza to leave this country. I have to make the same request of Señor Du Bosc, who, from evidence in our hands, is an accomplice in the establishment of the spy service which was organized by Señor Carranza. I have now to ask you to be good enough to convey yourself this request to your clients. I am anxious that they should not be subjected to any unnecessary inconvenience, but I must insist on their departure."

There were many expressions in Canada during the year in favor of an Anglo-American alliance or definite international arrangement. On May 19 the matter came up in the House of Commons in connection with a discussion of the alien labor law, and the Liberal Premier and the Conservative leader each expressed favorable views. Sir Wilfrid Laurier spoke as follows: "I have only this to say to Mr. McCleary, even if the law is deficient and if it had to be amended, I would ask Parliament not to choose the present moment to amend it. I would deprecate, and I think everybody ought to deprecate, that at this moment, when our neighbors are engaged in war, any action should be taken by this Parliament which, ever so remotely, would look as hostile to them. For my part, I would rather submit to some inconvenience, to seeing the law a little deficient, even if it were deficient in my own judgment, than to change it at this moment, when it is possible that the mother country and the American nation may assume more friendly relations than they have ever assumed before."

The appropriation by Congress of \$474,151 to pay the Bering Sea award was received with satisfaction in Canada, as was also the announcement of the proposed international conference to discuss and attempt to settle all the questions at issue between the two countries. This important meeting opened at Quebec on Aug. 23, 1898, with the following-named delegates: Great Britain—Lord Herschell, chairman of conference. Canada—Sir Wilfrid Laurier, Prime Minister; Sir R. Cartwright, Minister of Trade and Commerce; Sir Louis Davies, Minister of Marine; John Charlton, M. P. Newfoundland—Sir James Winter, Prime Minister; Hon. A. B. Morine, Receiver General. United States—Gen. John W. Foster; Hon. George Gray, United States Senator; Hon. C. W. Fairbanks, United States Senator; Hon. John A. Kasson; Hon. Nelson Dingley, M. C.; T. Jefferson Coolidge.

The following questions were to be discussed: Reciprocity of trade; fur seals in Bering Sea and the north Pacific Ocean; Atlantic and Pacific coast fisheries and fisheries in inland waters contiguous to the frontier; mining rights of citizens of one country within the territory of another; alien labor laws; war vessels on the lakes; delimitation of the Alaska-Canadian boundary; transportation of mer-

chandise in bond through the United States and Canada; the conveyance of persons in custody of officers of one country through the territory of the other.

After several meetings in Quebec, and various festivities in honor of the visitors, the conference adjourned and met again in Washington early in November.

Miscellaneous.—In May, 1898, the MacCord claim against Peru, which had assumed international importance through the United States taking up the matter, was referred to arbitration, and Sir Henry Strong, Chief Justice of Canada, was chosen as arbitrator. In July Lord Strathcona, of Mount Royal (Donald A. Smith, of Montreal), Canadian High Commissioner in London, took his first active share in imperial legislation by moving and carrying in the House of Lords a bill legalizing colonial marriages with a deceased wife's sister. An important meeting of the Royal Society of Canada was held in Quebec, May 25-27, presided over by the Hon. F. G. Marchand, Premier of Quebec. Many valuable papers were read, and the Hon. J. W. Longley, of Halifax, and Dr. G. R. Parkin, C. M. G., of Toronto, were elected fellows.

CAPE COLONY AND SOUTH AFRICA. The British colony of the Cape of Good Hope and the neighboring colony of Natal, together with the independent Boer republics—the Orange Free State and the South African Republic—occupy the temperate part of South Africa south of the Orange and Limpopo rivers. Between this region and the Zambesi are the British protectorates of Bechuanaland and British South Africa, or Rhodesia, occupying the elevated central region, generally fertile, salubrious, and rich in minerals, while the coast region in the east from the Zambesi river to the Zululand Reserve forms the southern part of Portuguese East Africa, and in the west German Southwest Africa occupies the poorly watered plains of Damaraland and Namaqualand, extending from the Orange river to the Portuguese colony of Angola. The territories of the British South Africa Company include the region known as British Central Africa, extending north of the Zambesi to the borders of the Congo Free State, and to the east of this undeveloped region the British Central African Protectorate, otherwise called Nyassaland, is projected between Portuguese territories on the Zambesi and Mozambique.

Cape Colony.—The Cape Parliament is composed of a Legislative Council elected for seven years and a House of Assembly elected for five years. All male citizens earning £50 a year or occupying a house or a lodging and able to write their names and addresses possess the franchise. The Governor of the Cape of Good Hope and High Commissioner for South Africa is Sir Alfred Milner, appointed in 1897. The ministry in the beginning of 1898 consisted of the following members: Prime Minister, Treasurer, and Secretary for Native Affairs, Sir J. Gordon Sprigg; Colonial Secretary, Dr. T. N. G. Te Water; Attorney-General, Sir Thomas Upington; Commissioner of Public Works, Sir James Sivewright; Secretary for Agriculture, Sir P. H. Faure.

Area and Population.—The area of Cape Colony, including Griqualand West, East Griqualand, Tembuland, the Transkeian territory, Walfisch Bay, Pondoland, and British Bechuanaland, is 276,925 square miles, and the population in 1891 was 1,389,053, of whom 382,198 were white and 1,383,762 colored. Excluding Pondoland and the Crown colony of British Bechuanaland, annexed in 1894 and 1895, the population was 1,527,224, of whom 331,950 were Afrikanders, 38,497 British-born, 6,540 Germans, 13,907 Malays, 1,265,511 native Hottentots,

Fingoes, Kaffirs, Bechuanas, etc., and 247,806 of mixed race. Of the total, 767,327 were males and 759,897 females. The population of Cape Town, the capital, was 83,718, including suburbs. The number of marriages registered in 1895 was 7,356; of births, 14,757 among the Europeans and 31,409 others; of deaths, 6,660 among the Europeans and 24,919 others. The number of arrivals by sea in 1896 was 38,669, and of departures 17,695.

Finances.—The revenue for the year ending June 30, 1896, was £6,803,802, of which £2,418,024 came from taxation, £3,927,267 from services, £375,145 from the colonial estate, and £83,866 from fines, stores issued, etc. The total expenditure was £6,360,404, of which £1,243,803 went for the public debt, £1,780,176 for railroads, £190,135 for defense, £350,109 for police and jails, £149,798 for civil establishments, and £709,079 under loan acts. The public debt on Jan. 1, 1897, was £27,396,805.

Defense.—The military forces of the colony consist of 817 mounted riflemen and 6,535 volunteers, besides 1,413 mounted police. The Imperial Government maintains detachments of British troops in the fortresses that line the coast at a cost in 1896 of £211,264, and has a squadron of 15 war vessels on the Cape and African station.

Commerce and Production.—Cape Colony in 1897 produced 1,954,373 bushels of wheat, 1,002,327 bushels of mealies, and 753,048 bushels of barley, besides oats, rye, and Kaffir corn; also 6,146,055 pounds of tobacco, 4,219,952 gallons of wine, 1,397,880 gallons of brandy, and 2,019,251 pounds of raisins. There are many sheep farms, owned for the most part by the wool growers, of from 3,000 to 15,000 acres. There were 2,231,370 cattle, 357,960 horses, 75,112 mules and asses, 14,049,076 sheep, 5,033,183 Angora and other goats, and 237,960 ostriches. The quantity of wool produced in 1897 was 43,311,884 pounds; of mohair, 8,193,796 pounds; of ostrich feathers, 258,768 pounds.

The total value of imports for the year ending June 30, 1896, was £16,916,315; of exports, £23,652,822, including £13,306,179 of gold. The total value of imports in 1897 was £17,997,789; of exports, £21,660,210. The exports of gold, mostly from the Transvaal, were £11,991,926; of diamonds, £4,450,876; of other products of the colony, £3,729,759. In 1896 the gold exports were £8,252,543 in value; diamonds, £4,646,487; wool, £1,874,555; Angora hair, £572,230; ostrich feathers, £519,539; hides and skins, £396,216; copper ore, £218,422; wine, £21,412; cereals, £11,244. The total value of imports in 1896 was £18,771,371; of exports, £16,970,168, of which £16,700,102 were colonial products. The imports from Great Britain were returned as £12,807,332; exports to Great Britain, £16,404,464; imports from British possessions, £811,171; exports to British possessions, £86,636; imports from foreign countries, £4,316,536; exports to foreign countries, £460,738.

Navigation.—The number of vessels entered from foreign ports during 1896 was 1,031, of 2,430,240 tons, and coastwise 1,353, of 3,598,857 tons; cleared for foreign ports, 1,020, of 2,437,479 tons, and coastwise, 1,341, of 3,575,138 tons.

The merchant navy of the colony on Jan. 1, 1897, was composed of 8 sailing vessels, of 598 tons, and 24 steamers, of 2,974 tons.

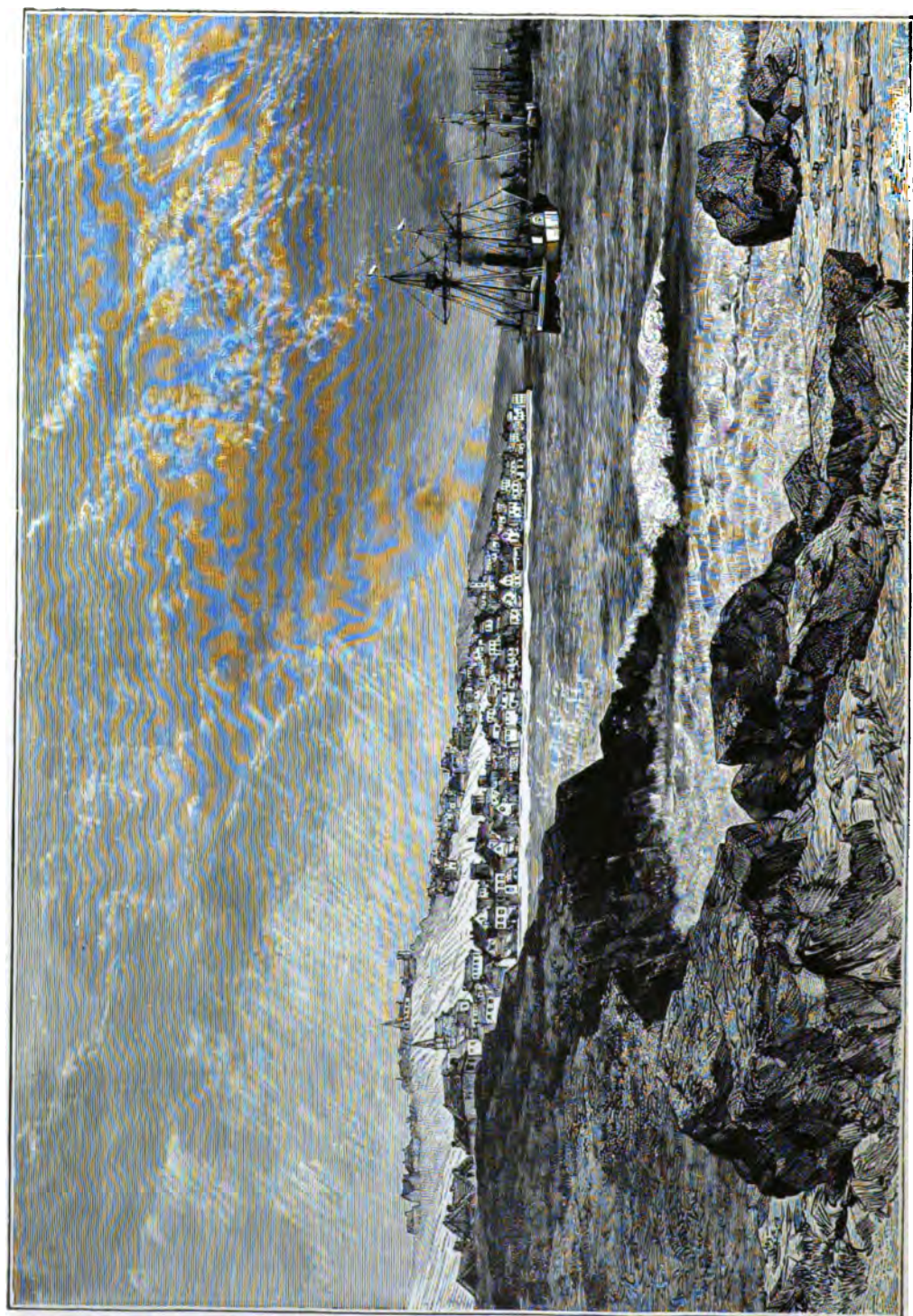
Communications.—The railroads belonging to the Government had a total length on Jan. 1, 1897, of 2,253 miles, and 96 miles were under construction. There were besides 254 miles of private railroads. The gross receipts of the Government railroads in 1896 were £4,078,561, and the expenses £1,921,809. There were transported 7,978,652 passengers and 1,378,345 tons of goods. In 1897 the railroads yielded 6 per cent. on the cost of construction. A

new junction railroad from Graaf Reinet to Middelburg was opened on March 3, 1898.

The telegraph lines had a total length on Jan. 1, 1897, of 6,405 miles. The number of dispatches in 1896 was 2,229,663. The number of letters carried in the mails was 17,579,300; of postal cards, 566,799; of newspapers, 8,184,480; of book packets and samples, 1,798,320; of parcels, 412,700. The receipts from posts were £375,428 and from telegraphs £128,323; total expenses, £373,342.

Political Affairs.—The Progressive party, headed by Cecil Rhodes, advocated the removal of import duties on meat and grain, the imposition of an excise tax on brandy, a scab act, a compulsory education bill, restriction of the sale of drink to natives, railroad development, and a contribution to the imperial navy. The other party, containing most of the Dutch voters and led by Mr. Hofmeyr and Mr. Merriman, represented the ideas of the Afrikaner Bond as against the imperialism of Mr. Rhodes, Dutch sentiment as opposed to English, agricultural rural interests in so far as they conflicted with commercial and industrial, the country against the towns. Mr. Rhodes himself was identified with the policy of the South African League, which he had first propounded: Imperial union and a colonial federation of Cape Colony, Natal, Rhodesia, and ultimately, when the Uitlanders gain the ascendancy, the Transvaal also and the Orange Free State. In the elections for the Legislative Council, which took place in March, the Progressive party won the victory, obtaining a majority of 2 in a body of 24 members and reducing the representatives of the Afrikaner Bond from 18 to 10.

The population of Cape Colony having of late years largely increased, while the number of representatives in the Assembly remained the same, all parties were agreed that an increase in the number of members was required, but there was a wide divergence of views as to the manner in which such increased representation should be distributed. A committee which sat under the presidency of the Prime Minister and was composed of leading men of all the parties was appointed in December, 1897, to consider this question. The bill resulting from its deliberations proposed the distribution of 12 new members among the present constituencies in proportion to their growth and the creation of 3 new ones, bringing the numbers in the Assembly from the existing total of 79 up to 94. The increase in the number of registered voters between 1891 and 1897 was from 74,000 to 110,000, notwithstanding the introduction of an educational test and a property qualification by the franchise bill of 1892, tending to the restriction of the right of voting. There were 76 members in the Assembly before 1895, when 3 new ones were added. A minority report of the committee, signed by the ministerial members, representing English sentiment, proposed to increase the Assembly to 97 members, in order to give the urban constituencies as great a proportionate increase of representation as was given in the bill to some of the smaller Dutch electoral divisions. Mr. Te Water, who disagreed with the views of his colleagues on this question and their hostility to the Afrikaner Bond, resigned the post of Colonial Secretary on May 16, and Dr. T. W. Smartt was appointed provisionally in his place. The session of the Legislature was opened on May 19. Besides the redistribution bill, the measures proposed by the Government dealt with irrigation, the arming of the forces, the ratification of the customs convention, and education. The customs convention was elaborated at a Customs Conference which met at Cape Town April 12. Cape Colony, Natal, and the Orange Free State were represented. The South African Republic and Portuguese East Africa



PORT ELIZABETH, CAPE COLONY.

declined an invitation to attend. On June 1 Sir J. Gordon Sprigg moved the second reading of the redistribution bill, making its acceptance a Cabinet question. The day before Mr. Schreiner had given notice of a motion of censure on the ground that Sir J. Gordon Sprigg had misrepresented the people in a letter to Mr. Chamberlain praising Mr. Rhodes and condoning his acts. After the redistribution bill had passed the second reading by a vote of 42 to 35, although its features were objectionable to the Dutch, the motion of want of confidence was carried on June 22 by 41 votes to 36. On June 28 the Legislature was prorogued. The House of Assembly was dissolved, and elections took place in August. The principle for which Sir Gordon Sprigg and the Progressives contended in the campaign was British supremacy, such supremacy as would make the British Government the judge in its dispute with the South African Republic as to the meaning of the convention of 1884. Cecil Rhodes was the central figure in the contest, and his policy of British rule, leading to imperial expansion throughout Africa from Cairo to the Cape, *versus* what he called *Krugerism*, was the question at issue. Electoral and fiscal reforms, compulsory education, irrigation, and the other items in the ministerial programme were thrust into the background and the race struggle was boldly challenged by the British partisans, although the Afrikaner party, led by Englishmen like Mr. Schreiner and Mr. Merriman, declared its loyalty to the British connection, and had the co-operation of Mr. Rose-Innes and his Independent Progressives in its opposition to Rhodes and his methods. In raising the race cry and in justifying menace and interference in the affairs of the Transvaal under the guidance of Mr. Rhodes the Government party miscalculated its strength. When the returns were all in it was found that the Afrikaner Bond had a majority in the new Assembly.

Basutoland.—The country of the Basutos, who raise wool, wheat, mealies, and Kafir corn, and possess immense herds of cattle in the fertile plateau lying between Cape Colony, Natal, and the Orange Free State, which has an area of 10,298 square miles and a population of about 250,000, is a Crown colony, administered by a Resident Commissioner, Sir G. Y. Lagden. The imports in 1896 were valued at £135,560, and the exports at £160,277. The revenue was £45,867; expenditure, £45,768.

The chief Masupha having resisted the police who attempted to arrest his son Moiketsi on the charge of assault and jail-breaking, the paramount chief Lerothodi marched with 10,000 men against his unruly vassal, who, after a siege and severe skirmishing, surrendered on Jan. 18, 1898.

Bechuanaland.—The Bechuanaland protectorate comprises the country of Khama, chief of the Bamangwato, and the Bakhatla and Bangwaketse countries under the chiefs Lenchwe and Bathoen, containing in all 213,000 square miles, extending north of the Molopo from the South African Republic and Matabeleland on the east to German Southwest Africa on the west. The sale of intoxicants is forbidden in the protectorate, which is governed by the chiefs under the control of a Resident Commissioner, F. J. Newton, answerable to the High Commissioner. The natives are peaceful agriculturists and graziers, and they pay a hut tax for the support of the British administration. The Bechuana who were found in the Langberg at the close of the rebellion of 1897 and were deported to the number of nearly 2,000 to Cape Colony and indentured to farmers for the period of five years, having been given the option of going as servants or standing their trial for treason, were placed with good masters and made good servants, according to the report of the Government inspectors.

Natal.—The legislative powers are vested by the charter of 1893 in a Legislative Council of 11 members appointed for ten years and a Legislative Assembly of 37 members elected for four years by male citizens possessing or occupying immovable property or having an income of £96, of whom there were 9,208 in 1896. The Governor is Sir Walter Francis Hely-Hutchinson, appointed in 1893. The ministry constituted on Oct. 4, 1897, was composed as follows: Premier and Colonial Secretary, H. Binns; Attorney-General and Minister of Education, H. Bale; Colonial Treasurer, Mr. Arbuckle; Minister of Native Affairs, J. L. Hulett; Minister of Public Works, Mr. Hime; Minister of Agriculture, E. Ryley.

Area and Population.—The area is estimated at 20,461 square miles. The population in 1891 was 543,913, comprising 46,788 whites, 41,142 East Indians, and 455,983 Kaffirs. This does not include Zululand and British Amatongaland, which were incorporated in the colony in December, 1897. The area of Zululand is about 12,500 square miles, and the population 180,370, including 1,100 whites.

Finances.—The revenue for the year ending June 30, 1896, was £1,457,388, of which £745,703 were railroad receipts, £265,369 customs revenue, £19,612 excise duties, £37,556 receipts from sales of land, £45,945 post-office receipts, £22,080 telegraph receipts, £28,123 stamps and license dues, and £76,847 the native hut tax. The expenditures amounted to £1,282,484, of which £745,703 were for operating the railroads, £66,929 for public works, and £107,150 for defense. The expenditure from loans, not included in the above, was £232,652. The debt on June 30, 1896, amounted to £8,054,343. The armed forces consist of 490 mounted police and 1,391 volunteers, not including the naval corps of 90 men.

Commerce and Production.—Maize, wheat, and green crops are grown for home consumption, and sugar and tea for export. The country is rich in coal and iron. The total value of the imports in 1896 was £5,437,863, and of the exports £1,785,375. The principal exports were wool for £590,605, gold for £102,624, coal for £88,334, hides and skins for £42,730, Angora hair for £24,925, and bark for £16,450.

Navigation.—There were 740 vessels, of 1,071,196 tons, entered and 727, of 1,063,797 tons, cleared in 1896. The colony possessed 13 sailing vessels, of 675 tons, and 14 steamers, of 2,050 tons.

Railroads.—The Government railroads in 1897 had a total length of 402 miles, built at a cost of £6,117,211. The receipts in 1896 were £1,136,213, and expenditures £421,989, giving a profit of 11½ per cent. on the capital.

Legislation.—The farmers of Natal have not hitherto exercised such influence as to obtain protective duties as they have in Cape Colony. A duty was imposed, however, on imported mealies at a previous session, and on Jan. 7 the Government carried a bill placing one of 2d. a pound on frozen meats by 25 to 11 votes. By a majority almost as large the Legislature on June 10 ratified the Cape Town convention uniting the colonies in a customs union. This increases the duty on coal 1s. per 100 pounds, and reduces the duty on frozen beef 1d. per pound, and on flour 6d. per 100 pounds.

Orange Free State.—The legislative power is vested in the Volksraad, a single Chamber of 58 members elected for four years by the votes of all adult male whites, one half being renewed every two years. The President of the republic, who is elected by all the burghers for the term of five years, is M. T. Steyn, elected Feb. 21, 1896.

Area and Population.—The Free State has an area of 48,326 square miles, with a population in

1890 of 77,716 whites, divided into 40,571 males and 37,145 females, and 129,787 natives, divided into 67,791 males and 61,996 females; total, 207,503. There is considerable immigration from Germany, Great Britain, and Holland.

Finances.—The revenue for 1896 was £374,774, and the expenditure £381,861. Of the revenue, £138,247 was derived from customs duties on imports, £57,431 from stamp duties, £35,694 from posts and telegraphs, £30,845 from transfer duties, £16,410 from the native poll tax, and £15,301 from quit rents. Of the expenditures, £50,236 went for salaries, £48,077 for public works, £47,163 for education, £30,320 for posts and telegraphs, £12,454 for police, and £7,145 for the artillery. In 1897 the revenue reached the total of £1,072,519. There are 2 batteries of artillery at Bloemfontein, the capital, manned by 80 officers and men, with a reserve of 350 trained gunners. The number of burghers subject to be called out for service by the field cornets is 17,381.

Commerce and Production.—There are 6,000 farms averaging 4,000 acres each, but only 250,000 acres are under cultivation. The number of horses at the last census was 248,878; of cattle, 895,099; of sheep, 6,619,992; of goats, 853,155; of ostriches, 1,461. The production of diamonds increased from 99,255 carats in 1890, valued at £223,960, to 282,598 carats in 1894, valued at £428,039. There are large coal deposits, and gold has been found. The value of the imports in 1896 was £1,186,457, of which £845,813 came from Cape Colony, £224,440 from Natal, and £116,205 from Basutoland; value of exports, £1,744,484, of which £612,313 went to Cape Colony, £116,961 to Natal, £75,751 to Basutoland, and £944,459 to the South African Republic. There are 1,500 miles of telegraphs, connecting Bloemfontein with the Transvaal, Natal, and the Cape, and 330 miles of railroad traversing the republic from the Orange river to the Vaal, joining those of Cape Colony and the South African Republic.

Political Affairs.—A conference of delegates to discuss the basis of a Federal Union between the Orange Free State and the South African Republic was held at Pretoria in January, 1898. The Volksraad, which was opened on April 4, voted to grant concessions for railroads to Kimberley and to Ladybrand.

South African Republic.—The legislative power is vested in two Volksraads, each consisting of 27 members elected for four years. Bills passed by the Second Volksraad to become law must be ratified by the First Volksraad, whose members are elected by the first-class burghers, comprising the male whites who were resident in the republic previous to 1876 or who have borne arms in the war of independence of 1881, the Malaboch war, or the Swaziland expedition in 1894, or in the operations against the Jameson raiders in 1896. The Second Volksraad is elected by burghers of both classes. Second-class burghers are adult male whites who obtain naturalization after two years of residence by taking the oath of allegiance, registering themselves in the books of the field cornet, and paying a fee of £2. Only first-class burghers can vote in the election of the President or the Commandant General. The State President, whose term is five years, is S. J. Paulus Krüger, elected for the third time in 1893. The Vice-President and Commandant General is Gen. P. J. Joubert, elected in 1896. The Executive Council was composed in 1898 of the Vice-President; Dr. W. J. Leyds, the State Secretary, elected in 1897 for the third time; P. A. Cronje, Superintendent of Natives; J. H. M. Kock, Keeper of the Minutes; and J. M. A. Wolmarans and S. W. Burger, non-official members.

The Transvaal was occupied and annexed by

Great Britain in 1877, but revolted in 1880, and in the treaty of peace, signed on March 21, 1881, was recognized as independent once more in all internal affairs, though subject to the suzerainty of Great Britain, which assumed the control and management of external affairs and appointed a British resident. On Feb. 27, 1884, a new convention was signed, from which the clause relating to suzerainty was omitted. A diplomatic agent replaced the British resident under this convention, but all treaties with foreign powers, save the Orange Free State, or with native tribes to the north or west of the Transvaal, were required to be submitted to the British Government, which has six months in which to approve or reject them. In token of its regained independence the Republic, previously known as the Transvaal, was recognized under the new title of the South African Republic.

Area and Population.—The area of the Republic is 119,139 square miles, and the white population, according to the census of 1896, is 245,897, of whom 137,947 are males and 107,450 females. The native population is estimated at 622,500. The white population of Pretoria, the capital, is about 10,000. The total population of Johannesburg, the mining center, on July 15, 1896, was 102,078, divided into 79,315 males and 22,763 females, and consisting of 50,907 whites, 5,759 Indian coolies, Chinese, and Malays, 2,879 of mixed races, and 42,533 Kaffirs.

Finances.—The revenue for 1896 was £4,807,513, and the expenditure £4,671,393. For six months of 1897 the revenue was £1,805,226, and the expenditure £1,865,714, against £1,734,728 for the whole year 1894. The provisional estimates for the whole year 1897 made the revenue £4,886,499, and the expenditure £4,702,028, including large extraordinary expenditures, as £1,054,028 for public works, £527,800 for armaments, £500,000 for explosives, and £150,000 for prevention of the spread of the rinderpest. There was an unexpended balance of £591,118 on June 30, 1897. The chief part of the revenue is derived from the gold fields in the shape of mining licenses and royalties, duties on imports destined for the mining regions, railroad revenue, receipts from the dynamite monopoly, etc., land sales, quit rents, the hut tax, stamps, transport dues, and customs produce the rest of the revenue. The revenue collected from the mines in 1895 was £1,848,571. The gold fields at Barberton are on lands belonging to the Government. The import duties collected in 1896 amounted to £1,355,486. The amount of the public debt in 1897 was £2,678,690.

Defense.—All able-bodied citizens belong to the militia and can be mustered, all armed and mounted, for active service at any time. The only standing force is the artillery, numbering 32 officers and 368 men. Since the Jameson raid the Government has paid part of the expenses of 3 volunteer corps of infantry and 6 of cavalry, numbering 2,000 men.

Commerce and Production.—One third of the inhabitants of the Republic are engaged in agriculture, but stock raising is the principal industry. There are 12,245 farms, of which 3,636 belong to the Government, 1,612 to absent owners and companies, and 6,997 to resident owners. The gold mines employed 9,375 whites and 64,012 natives in 1896. The claims cover an area of 442,000 acres. There are 200 mining companies, having a nominal capital of £57,000,000 and £21,000,000 of invested capital. The total production of gold from the first discovery in 1884 to the end of 1896 was £42,384,248. The output for 1896 was £8,608,821, compared with £8,569,555 in 1895, £7,667,152 in 1894, £5,480,498 in 1893, £4,541,071 in 1892, £2,924,305 in 1891, and £1,869,645 in 1890.

The coal mines in the eastern part of the Trans-

vaal are being developed rapidly, and the deposits in the Witwatersrand produce a steady output of excellent coal. The total quantity raised in 1896 was 1,437,297 tons, valued at £612,561.

The total value of dutiable imports in 1896 was £14,088,130, of which £9,264,378 came from over sea and £4,823,752 from neighboring countries. The total value in 1895 was £9,816,304, and in 1894 it was £6,440,215. The extent of the gold exports is seen in the Cape Colony returns. Other chief exports are wool, cattle, hides, grain, ostrich feathers, ivory, tin from Swaziland, and coal.

Communications.—The continuation of the railroad crossing the Orange Free State to Pretoria by the construction of 78 miles from the Vaal river places the Boer capital in direct communication with Cape Town, 1,040 miles distant. The Delagoa Bay line to Pretoria, 295 miles long, has been in operation since the beginning of 1895. A line from Natal enters the Transvaal and has its present terminus at Charlestown. A line to Selatje, 191 miles in length, is approaching completion. The total length of railroads within the Transvaal was 716 miles in September, 1897, when there were 270 miles additional partly constructed and 252 miles more projected.

The telegraphs within the Transvaal have a total length of 1,952 miles, connecting with all the telegraphs and cables of South Africa.

Political Affairs.—Cecil Rhodes, who, when Prime Minister of Cape Colony, was the originator and prime mover in the conspiracy for the overthrow of the Transvaal Government that was rendered abortive by the vigilance and decision of the Boer authorities, by resuming his political activity in South Africa strengthened the position of President Krüger and made the Boers more determined and unyielding in their resistance to the demands of the Uitlanders. What still more aroused the fears of the Boers and excited their jealous love of independence was Mr. Chamberlain's dispatch of Oct. 16, 1897, roughly asserting the continuance of British suzerainty. Before the presidential election several hundred Uitlanders, who had volunteered to fight the Jameson raiders and the Johannesburg revolutionists, were admitted to full burgher rights. The English Government intervened in behalf of Indian Banyans, who were required to live and to trade outside of towns, but only to secure an interpretation of the law, since these British subjects were placed under similar disabilities in Natal and lately in Rhodesia. On Jan. 19, in accepting one of the new forts round Pretoria, the President said that readiness for war was the best guarantee of peace. The popular vote for President, which was given near the end of January, resulted in the triumphant re-election of Stephanus Johannes Paulus Krüger, who received 12,858 votes, to 3,753 for Schaalk Burger and 2,001 for Gen. Joubert. About two thirds of the electorate voted.

A constitutional conflict between the President and Chief-Justice Kotze began in September, 1895, when the case was pending of Brown, an American citizen, who had been ousted by operation of this resolution from a mining claim and had brought suit for damages against the State Secretary. The High Court having given judgment for Brown on Jan. 22, 1897, denying the validity of a resolution of the Volksraad rescinding the proclamation on which Brown based his claim, the Volksraad as soon as it met passed Law 1, 1897, declaring that the testing power does not exist and never did exist; requiring the judges of the High Court to take oath that they will carry out all laws and resolutions of the Volksraad and not presume to test them by the *Grundwet*, or Constitution; and furthermore

empowering them to dismiss any judge from office who in answer to formal interrogatories will not undertake to observe Volksraad laws and resolutions. By a written agreement made on March 22, 1897, through the mediation of Sir Henry de Villiers, Chief Justice of Cape Colony, the judges promised not to exercise the testing power, and the President undertook to introduce a draft constitutional law providing that the *Grundwet* can be altered only by special legislation and safeguarding the independence of the judiciary. He promised in his negotiations with Sir Henry Villiers to have a commission appointed, but Mr. Kotze assumed that a bill was to be introduced forthwith, and when the commission protracted its deliberations, and the session of 1897 passed without any action being taken by the Volksraad in the matter, he wrote to President Krüger on Feb. 5, 1898, that he considered the understanding between them as having lapsed and no longer existing. The President held that he was not bound to carry through such legislation as the judges demanded, but that they had engaged themselves not to test acts of the Volksraad. He regarded Chief-Justice Kotze's letter as a virtual refusal to answer or an insufficient answer to the question that he had put to him on March 4, 1897, under the law passed by the Volksraad, and accordingly on Feb. 16, 1898, he dismissed him from office in accordance with a decision of the Executive Council. Mr. Kotze replied that Law 1, 1897, was no law, and claimed that he was still Chief Justice, having been appointed for life, and not being liable to removal under the *Grundwet* except on charges of grave misdemeanor. He assumed to adjourn the court, but Judge Gregorowski was appointed acting Chief Justice and opened court immediately. Mr. Kotze addressed a manifesto to the people of the Republic, and afterward went to England and appealed to the British Government to interfere as suzerain to prevent the property rights and liberty of Uitlanders being overridden by the Boer oligarchy. He had been appointed Chief Justice for life by the British when they were in occupation of the Transvaal. Justice Ameshoff, who had stood by the ex-Chief Justice in all his contentions, and who looked for the succession to the presidency of the court, resigned his office. Judge Gregorowski was sworn in as Chief Justice on March 31.

The session of 1898 was opened on May 2. A proposal to raise a state loan of £6,000,000 to build railroads and extensive irrigation works was postponed to be considered at the next session. President Krüger was sworn in for the new term on May 12. He proposed to withdraw the licenses from banks that oppressed poor people and increased the existing depression, and suggested, for the prevention of spurious mining companies, that a certificate from a Government engineer be required before a company can be floated. Of the draft laws submitted one provides for the infliction of one to six years' imprisonment upon officials revealing the contents of documents which in the interest of the state should remain secret. The alien's expulsion law, to which the British Government objected, was amended in compliance with Mr. Chamberlain's demand, so that an Uitlander accused of acts endangering the security of the state, and therefore liable to expulsion by executive order under the act as it stood, must first be placed by the Government in a position to bring forward his interests. Another bill enabled the executive authority to decide what is a dishonoring sentence. A third virtually prohibits any alien not a burgher of the Orange Free State from bringing firearms into the Transvaal without a permit from the State Secretary. There was a bill authorizing the Gov-

ernment to give £100 to any needy burgher having twelve sons living. A bill was passed establishing a school of mines at Pretoria; another provides for technical schools in all districts, open only to burghers' sons. Another bill extends the municipal franchise to non-resident owners of property worth £100, and at the same time disqualifies Uitlanders for the office of municipal councilor, unless a separate law allows them the privilege, as in Johannesburg. The discovery of a diamond mine near Pretoria of similar formation to the Kimberley deposits led to the adoption of a bill limiting ownership to 40 claims 80 feet square and prohibiting the leasing and amalgamation of claims. Subsidies to Uitlander schools were continued for three years more, the condition of receiving a subsidy being that South African history is taught, and Dutch up to a certain standard.

Dr. Leyds resigned in May the State Secretaryship and went to Europe as diplomatic representative of the South African Republic to Berlin, the Hague, Paris, Lisbon, Rome, and St. Petersburg. Judge Reitz, formerly President of the Orange Free State, was chosen to succeed him as State Secretary.

Controversy regarding Suzerainty.—When the British withdrew from the Transvaal after their defeat at Majuba Hill they restored complete self-government to the inhabitants subject to the suzerainty of the Queen, as was set forth in the preamble of the convention of Pretoria of 1881. The term suzerainty was chosen to describe superiority of a state possessing independent rights of government subject to reservations with reference to certain specified matters. The most material of the reserved rights of England in the Transvaal was the control of the external relations of the reconstituted Transvaal state, including the conclusion of treaties and the conduct of diplomatic intercourse with foreign powers. In 1883 a deputation was sent to London to secure the abolition of British suzerainty and the stipulations in regard thereto. This deputation negotiated a new convention in 1884, from which the word suzerainty was removed and the reserved rights of England were foregone, save that all treaties concluded with foreign powers, except the Orange Free State, or with native tribes beyond the borders, can be vetoed by the British Government at any time within six months of their conclusion. In the draft of the London convention Lord Derby expunged every reference to suzerain rights contained in the convention of Pretoria. The preamble of 1884 expressly acknowledges a new state, the South African Republic, in the place of the Transvaal territory, subject to the suzerainty of her Majesty.

The right of British suzerainty was first asserted anew by Mr. Chamberlain in his dispatch of Oct. 16, 1897. He had contended that the alien law as first passed by the Volksraad in 1896 was a breach of the London convention. The Transvaal Government demurred to this and refused to revoke the law or suspend its operation, holding that every state has the right to restrain foreign elements that are dangerous to the peace and safety of its inhabitants; refused also the invitation to discuss the question with the British agent, but offered to submit it to arbitration. Notwithstanding this declaration, the law was revoked, with a view to legislation being introduced anew. Mr. Chamberlain in his answer on Oct. 16, 1897, maintained the claim of the British Government to be consulted before legislation is introduced restricting the entrance of aliens other than natives. The rights invoked from the general principles of international law were dismissed as not applying in this case, which was "not that of a treaty between two states on an equal

footing, but a declaration by the Queen of Great Britain and Ireland of the conditions upon which she accorded complete self-government to the South African Republic, subject to her suzerainty." He contended that the preamble of the convention of 1881 was not replaced by the preamble of the new convention, but was still in force, though the articles of the latter were substituted for the articles of the Pretoria convention. In his view, under the two conventions, the Queen held toward the South African Republic the relation of a suzerain who had accorded to the people of that Republic self-government upon certain conditions, and he held it to be incompatible with that position to submit to arbitration the construction of the conditions on which she accorded self-government to the Republic. Dr. Leyds replied to this dispatch on April 16, 1898, recounting the negotiations, with Lord Derby's explanations and elisions, showing that not only by its terms, but in its intent, the convention of 1884 put an end to British suzerainty. Lord Derby said that by the omission of those articles of the convention of Pretoria which assigned to her Majesty and to the British resident certain specific powers and functions connected with the internal government and foreign relations of the Transvaal State, the Government of the South African Republic would be left free to govern the country without interference and to conduct its diplomatic intercourse and shape its foreign policy, subject only to the requirement embodied in the fourth article of the new draft, that any treaty with a foreign state shall not have effect without the approval of the Queen. The report of the deputation that the obnoxious provisions of the Pretoria convention were revoked, on the strength of which it was ratified by the Volksraad, had never been challenged on the part of the British Government until now by Mr. Chamberlain. Dr. Leyds pointed out that the two preambles were in direct opposition to each other, and could not be both in force at the same time. Lord Derby in his letter covering the draft of the new convention said that this was proposed in substitution for the convention of Pretoria. Dr. Leyds proposed that the question of suzerainty be arbitrated by a friendly third power. The present independence of the South African Republic derives its formal acknowledgment, but in no sense its real origin, he held, from an international agreement, acknowledged as equally binding on both parties. Great Britain had acknowledged the international character of the convention by agreeing to refer the first article to a friendly power, and could not contend that the interpretation of agreements between powers not on the same footing is not to be referred in case of disagreement to international law in the same manner as treaties between powers of the same standing, since there is no other law to which it can be referred; otherwise the British Government would constitute itself the sole judge of a document to which it is a party.

In a dispatch dated May 7, 1897, the State Secretary had proposed the abrogation of the convention of London, arguing that Great Britain had violated it by the armed incursion of Dr. Jameson. Mr. Chamberlain, in his dispatch, asserted that the raid was the act of private individuals, for which the British Government was in no wise responsible. Dr. Leyds, in his reply, pointed out that the troops which raided the territory of the Republic were British troops, serving under the British flag, enlisted, armed, and equipped in British territory under the orders of the Administrator, who derived his authority from the British Crown, commanded by officers holding her Britannic Majesty's commissions, and that the raid was prepared with the aid and advice of Cecil Rhodes, who was Prime

Minister of Cape Colony, with the connivance of Sir Graham Bower, imperial secretary to the High Commissioner for South Africa.

Mr. Chamberlain complained that an extradition treaty negotiated with Portugal in 1893 had not been submitted to the British Government in accordance with the fourth article of the London convention, requiring treaties on their completion to be submitted to the approval of the Queen. The Portuguese Cortes did not ratify the treaty, being unwilling to offend the British Government, and Dr. Leyds seized upon this fact to justify the attempted evasion of the convention, arguing that a treaty is not completed until it is ratified. In the beginning of March, 1898, the Volksraad passed a resolution empowering the Government to hand over any fugitive demanded by any state with which no regular extradition treaty exists, the Government to decide whether his extradition is *prima facie* justifiable. By this act and a reciprocal one on the part of the Portuguese Government the necessity of a treaty of extradition was avoided, but since the proceedings were formally correct the British Government raised no objections. The Government declined to enter into a treaty of extradition with Rhodesia. In June the British military authorities restored to their former rank the thirteen subordinate officers who took part in the Jameson raid and who had been allowed to resign their commissions after their trial and conviction. They had been led to believe that their leaders had the secret sanction of the Imperial Government for the expedition. Sir John Willoughby and Col. Frank Rhodes, who were deeply involved in the planning and execution of the raid and were in confidential relations with its authors, were not reinstated in the army.

Swaziland.—The native territory on the east of the Transvaal inhabited by the Swazis, an offshoot of the Zulu nation, was recognized as independent in the London convention of 1884, but the convention of 1890 vested the Government of the increasing white population in a government committee, and a new convention concluded between the South African Republic and Great Britain on Dec. 10, 1894, placed Swaziland under the protection and administration of the Republic. The area of this territory is about 8,500 square miles, with a population of about 50,000 Kaffirs and 1,000 whites, Boer graziers for the most part, with some British traders and miners. The natives are ruled by their paramount chief, Bunu, otherwise called Ngwane, born in 1877, who has an army of 18,000 warriors. Tin of the value of £11,500 and £4,344 worth of gold were produced in 1896. The Transvaal authorities, who were not allowed to impose a native hut tax till 1898, have collected not over £3,000 annual revenue, while the deficit of about £47,000 a year has been paid out of the treasury of the Republic.

The three years' grace fixed by the Swaziland convention having expired, the Transvaal Government in the beginning of 1898 made arrangements to collect a hut tax from the natives. Bunu, the king, at first evaded notice by running away into the mountains, but in March he held an *indaba*, at which he announced that he would collect the tax if it were insisted upon, and hand it over to the Government. In May a burgher force marched into Swaziland to bring to terms the Swazi king, who had killed his head *induna*. Bunu, who was summoned to attend a judicial inquiry on July 5, fled over the Natal border. An *indaba* was held on July 14, at which the chiefs and the Transvaal commissioner agreed temporarily to recognize the queen mother as regent. The British authorities delivered up Bunu for trial. The collection of the hut tax was begun on Aug. 1.

British South Africa.—The total area of the territories committed in 1891 to the administration and commercial exploitation of the British South Africa Company, including British Central Africa, or North Rhodesia, is about 600,000 square miles. The part south of the Zambesi, known as South Rhodesia, is 350,000 square miles in extent. The pioneers of the company in 1890 settled in Mashonaland, then a province of Matabeleland, by permission of Lobengula, the Matabele chief, having built 400 miles of roads through Bechuanaland to reach this country, which was reputed to be rich in gold. In 1893 the colonists ousted the Matabeles, and the company took possession of their country also. Matabeleland has an area of about 61,000 square miles, with an estimated population of 240,000, while Mashonaland is 80,000 square miles in extent and its population is about 210,000. The gold regions are believed to cover 5,250 square miles, but their development is slow and their actual value uncertain. There were 5,708 white persons in the country at the time of the Matabele rising in 1896.

Silver, copper, tin, antimony, arsenic, lead, coal, and other minerals have also been found. The British and Boer volunteers who aided in the conquest of the Matabeles were allowed to peg out 1,070 farms of 6,000 acres each. In Mashonaland about 5,000 square miles have been surveyed. The capital of Rhodesia is Salisbury. Other towns are Buluwayo, the old Matabele capital, Umtali, Victoria, Gwelo, Enkeldoorn, and Melsetter. Telegraphs connect these places with Mafeking and Cape Colony, and the line has been extended north of the Zambesi to Blantyre, in Nyassaland. This extension, establishing telegraphic communication between Cape Town and Blantyre, a distance of 2,000 miles, was opened on April 20, 1898. A further extension was built to Kotakota, 263 miles north of Blantyre, and is being carried through to Lake Tanganyika. The company's telegraph system on Sept. 30, 1897, consisted of 1,856 miles of line, with 2,538 miles of wire. The railroad built by the company from Kimberley to Vryburg in British Bechuanaland, 126 miles in length, has been transferred to the Cape Government, and the line has been extended to Buluwayo, 453 miles. The whole cost of the railroad, 579 miles in length, was £2,000,000. Another railroad company has constructed a railroad from Beira, on the east coast, to Chimoio and Umtali. It was expected to reach Salisbury in the beginning of February, 1899, giving a total length of 1,086 miles of railroads established by the British South Africa Company. To the Bechuanaland Railroad the Imperial Government gives a subsidy of £20,000 a year for ten years and the Chartered Company gives £10,000 a year.

The capital of the British South Africa Company, originally £1,000,000, was increased in 1895 to £2,500,000, and in November, 1896, to £3,500,000. There is also a 5-per-cent. debenture debt of £1,250,000. The company derives its revenue from mining, trading, and professional licenses, the sale of stands for business in the towns, and the postal and telegraph services.

The revenue for the year ending March 31, 1895, was £118,883, of which £53,047 were derived from the sale of stands. In 1896 the total receipts were £399,090, including £211,676 from the sale of stands. The receipts exceeded the expenditure by £69,650, but in 1897, owing to native disturbances and the rinderpest, the revenue fell away to £122,542, while the expenditure on account of the rebellion alone was £2,266,976. The Mashonaland uprising was not finally quelled before September, 1897. The rebellion of the Matabele and Mashonas cost £3,000,000, including the cost of the local volunteer forces and of the imperial troops, £360,000 paid in

compensation to settlers and the cost of food distributed among the natives after the war was over. The casualties among the whites numbered 639, about 10 per cent. of the whole population, including 264 murdered or missing, 187 who lost their lives through wounds or other causes, and 188 wounded. The revenue for 1898, exclusive of stand sales, amounted to £196,653, the highest figure yet reached. After all the expenses connected with suppressing the rebellion were paid out of the new capital raised in London, a balance of £500,000 remained to meet the ordinary expenses of the company. The suspense account, consisting of money spent on the Jameson raid which Mr. Rhodes and his associates have promised to repay, amounted to £91,000. At the meeting of the shareholders in April, 1898, it was decided to increase the capital to £5,000,000, issuing for the present only 250,000 shares to the shareholders *pro rata* at £2 a share and reserving 1,250,000 shares to be issued from time to time when additional capital is needed to promote the commercial interests of the company. When the shares were offered, instead of £500,000 the public subscribed £1,250,000. Cecil J. Rhodes, Alfred Beit, and Rochfort Maguire, who retired from the directorate in 1897 on account of their connection with the Jameson raid into the Transvaal, were re-elected in 1898. In anticipation of the erection of South Rhodesia into a self-governing colony, it was decided to keep separate accounts of the commercial business of the company and the amounts received and expended by it in discharge of its duties as a government, with a view to having the aggregate deficits assumed by the people as a public debt when they assume full responsibility for the administration of the country. The accumulated annual deficits in the ordinary budget up to March, 1897, amounted to £1,145,000, to which must be added the cost of suppressing the native insurrections and of combating the rinderpest, railroad guarantees and deficits, and other items.

The British Government after the Jameson raid transferred the control of the military forces to the High Commissioner and decided to divest the company of a great part of its political and administrative responsibilities and privileges, the directors having already, in 1895, suggested that a voice in the administration be given to the inhabitants as a step toward full responsible government. The plan adopted by the Secretary of State for the colonies was announced in January, 1898. The High Commissioner before had control over legislation and administration, but it was not exercised. In the future all legislation will be passed locally by the Legislative Council of South Rhodesia, comprising 2 elective members for Mashonaland, 2 for Matabeleland, and 5 members nominated by the company, insuring it a majority so long as it remains responsible for the finances. Ordinances passed by the Legislative Council may be disallowed within a year by the Colonial Secretary, either of his own motion or at the request of the board of directors of the Chartered Company in London. All orders or resolutions of the board must be submitted to the Secretary of State for his approval. He will have power, moreover, to remove any director or official of the company in London. Administrators are appointed, one for Matabeleland and one for Mashonaland, each having an executive council and each being a member and one of them president of the Legislative Council. An imperial officer will be appointed and paid by the Crown, styled the Resident Commissioner, who will control the employment of the armed forces, but have no power to deal directly with the officials of the administration. He has a seat and a voice in the Legislative Council, but no right to vote. On information furnished by him the High

Commissioner will act in disallowing ordinances and in giving or withholding his approval of appointments and removals from office. In extraordinary cases the High Commissioner shall have power to legislate by proclamation. The commandant of the forces is appointed and paid by the Crown. In employing the forces for police purposes, including the suppression of internal disorder, he shall ordinarily be guided by the wishes of the administrator and his subordinates, referring to the Resident Commissioner for instruction in cases when he thinks it undesirable to comply with their requirements, and in no case undertaking military operations without his authority.

After Cecil Rhodes and his companions, J. W. Colenbrander, Dr. Hans Sauer, Mr. Stent, and John Grootboom, went to the rebellious Matabele in the Matoppos hills and secured their final submission, they surrendered an enormous number of arms and have since remained perfectly loyal. Native commissioners were brought from Natal. Salaried *indunas* exercise a limited control in the different districts. Natives indentured to white landowners are protected by the native commissioners from wrong, and for the remainder of the native population a reserve of tillable land has been set apart in each district. The pegging of farms has been prohibited within the limits of the reservations. Local government had its first trial in the establishment of municipalities at Salisbury and Bulawayo in virtue of regulations that came into operation in September, 1897.

The establishment of railroad communication with the seaboard in both directions has enabled the mining companies to carry out development work on some of the properties which Mr. Hammond pronounced to be true fissure veins and to import machinery and begin crushing. Six quartz mills were started in 1898. There were 156,235 registered mining claims on Jan. 31, 1898, covering 4,438 miles of reef, exclusive of claims abandoned after registration. The South Africa Company has decided to take a more active part in the development of minerals. Under the peculiar mining law adopted for this country a prospector is not restricted to a single claim, but is allowed to stake out twenty, on which no monthly license or other tax or royalty is paid until the mine is developed. Instead of this, when a company is floated to work the mine, the Chartered Company receives 50 per cent. of the purchase money. In arrangements with companies already started the company has reduced its share of the vendor's scrip. In order to hasten the development of the gold mines the South Africa Company will appoint engineers to examine promising claims, and on the starting of a new company will subscribe a part of the working capital. The total amount of capital raised in England, first and last, by the Chartered Company is about £8,000,000, including debenture bonds, but not including £2,000,000 guarantee for the Bechuanaland Railroad, the cost of telegraph lines and of the Mashonaland and Beira railroads, and other items which would bring the total amount of capital invested up to £10,000,000. This £8,000,000 Cecil Rhodes proposes to shift to the colonists of Rhodesia in the form of a public debt, leaving the company in possession of its commercial privileges and its right to half the minerals. The British South Africa Company in 1895 offered to incorporate in the Rhodesian Constitution a provision to give preferential tariff rates to British goods, but the proposal was rejected by the Liberal Cabinet, which wished to have the provision cover imported goods from any country. In 1898 it was renewed and was accepted by Lord Salisbury's Government, the provision being that the duty to be charged on British goods shall never

exceed the duty at present levied by Cape Colony, which is a tariff for revenue only, averaging about 9 per cent.

The administrators appointed under the new charter are Mr. Milton at Buluwayo and Capt. Lawley at Salisbury. Sir Marshall Clarke was appointed Resident Commissioner.

British Central Africa.—The territory north of the Zambesi that was given over to the administration of the British South Africa Company in 1891 has an area of about 250,000 square miles, with an estimated population of 650,000. There are now over 350 Europeans in this region, which has lately been invaded by East Indian traders. Settlements under British administration have been established in the Tanganyika district, on Lake Mweru, and near Bangweolo on the Luapula river. The territory includes the populous Barotse kingdom. The boundary on the west between the British sphere and the Portuguese territory is to be determined by an Anglo-Portuguese commission appointed under a provisional agreement terminating in July, 1898. The head of the administration and representative of the Chartered Company is Major P. Forbes.

British Central African Protectorate.—Nyassaland was declared a British protectorate in May, 1891. The British commissioner and consul general is Alfred Sharpe. The area of the protectorate is about 38,000 square miles. The population in 1897 numbered 300 Europeans, 263 Indian traders, and 844,995 natives. Blantyre, in the Shire Highlands, the chief town, has a population of 6,000 natives and 100 Europeans. In this district the settlers have coffee plantations, producing 850,000 pounds in 1897. They also grow rice, wheat, oats, and barley, and raise sheep and ponies. The imports were valued in 1896 at £82,760, and exports at £19,870; imports in 1897 at £80,064, and exports at £23,299. Steamboats convey goods between the river and lake ports and the British concession in Chinde, at the mouth of the Zambesi. There are 5 English gunboats kept on the Shire and Zambesi rivers. The armed force employed in the protectorate to preserve order and check the slave trade consists of 185 Sikhs and 800 native troops, besides 200 police. A telegraph line connects Blantyre with Zomba, Tete, Fort Salisbury, and the Cape system.

The Angoni Zulus, who number about 40,000 fighting men and inhabit the country on the borders of British Central Africa, Portuguese East Africa, and Northern Rhodesia, under their King, Mpseni, lived in peace with the white settlers in their country until at the beginning of 1898 the warlike ardor of the young men could no longer be restrained by the old King. The British Central Africa rifles and a force of Sikhs relieved Fort Jameson, whence Capt. Brake, setting out on Jan. 18, with 300 Atonga riflemen and 50 Sikhs, marched to the aid of Mr. Wiese, who was besieged at Loangweni, in the heart of the Angoni country. After a skirmish Capt. Brake occupied Loangweni, and remained there until nearly 1,000 troops, under Col. Manning, regular Sikhs and natives, with field guns and Maxims, were concentrated in the territory. Dividing into four columns, the force devastated the country, capturing all the cattle and destroying the villages and cultivated spots. After Singu, their leader, was taken prisoner the Angonis gave up the contest, having made but a feeble resistance. Mpseni surrendered on Feb. 9. After this campaign, in which only two whites lost their lives, Europeans settled freely on the land of the Angonis within the Nyassaland limits and in the neighboring Charterland. In April the southern Angonis of the Domwe district of North Rhodesia,

who had remained quiet since their subjugation in 1896, assembled to the number of 6,000 to resist the occupation of their country by white immigrants. Troops were sent from Zomba to punish them.

German Southwest Africa.—The German protectorate has a total area of 322,450 square miles, with a population of about 200,000 Hottentots, Damaras, Bushmen, and Kaffirs. The whites in June, 1897, numbered 2,628. Of the male population, 1,221 were Germans and 333 British and Boers. The local revenue in 1895 was 27,740 marks, and the Imperial Government appropriated 1,000,000 marks, leaving still a deficit of 1,429,840 marks, for the expenditure was 2,457,580 marks. The local revenue for 1898 was estimated at 790,200 marks, to which the Imperial Government added a contribution of 3,015,000 marks to meet the estimated expenditure of 8,805,200 marks. The imports through the British port of Walvisch Bay, hitherto the only available seaport in this part of the country, were valued at 944,695 marks in 1894, and the exports at 106,833 marks. The trade overland is much greater. The Germans have planned to build a harbor at Swakopmund and are building a railroad to connect it with Windhoek, the seat of the administration, which is 180 miles inland. The natives of Damara-land rear cattle in great herds. Goats of the native breed are raised, and sheep have been introduced from Cape Colony. The country is comparatively barren and waterless except in the north, where an Anglo-German company has obtained a concession. In December, 1897, the Zwartberg Hottentots in the northern part of the territory, where the Germans have undertaken to rear cattle, attacked the whites and were dispersed by the troops after a fight in which one German was killed and Capt. von Estorf, the commander, and another were wounded.

Portuguese Possessions.—Portuguese East Africa is the coast region north and south of the Zambesi lying east of British Central Africa and British South Africa. It is divided into the provinces of Mozambique, Zambesia, and Lourenço Marques, the military district of Gaza, and the districts of Inhambane, Manica, and Sofala. The two last have been committed to the administration of the Mozambique Company, which received in 1891 a royal charter granting sovereign power for fifty years. The country between Lake Nyassa, the Rovuma, and the Lurio is administered under a royal charter by the Nyassa Company. The Zambesia Company is authorized to carry on industrial, commercial, agricultural, and mining operations. Another company has sugar plantations on the lower Zambesi.

The revenue of the colony for 1898 was estimated at 3,952,820 milreis, and the expenditure at 3,700,040 milreis. The imports at the port of Mozambique were £87,760 and the exports £59,418 in value in 1896; imports at Quillimane in 1894 were valued at £94,537, and exports at £76,344; imports at Beira amounted to £160,570, exports to £17,950, and the transit trade to £142,960; and at Lourenço Marques in 1896 the imports amounted to £638,410, exports to £17,857, and the transit trade to £1,518,970. The number of vessels that called at Mozambique in 1896 was 101, of 204,834 tons, and at Lourenço Marques 391, of 559,646 tons. Englishmen and others have located 1,325 claims for gold mining in Manicaland, but have not developed them, owing to lack of means of communication. The Delagoa Bay Railroad runs 57 miles to the Transvaal border, whence it is continued for 290 miles to Pretoria. The Beira Railroad has been completed from Fontesvilla to Massikesse, 118 miles, and the end sections from Beira to Fontesvilla and from Massikesse to Umtali and Salisbury are under construction. There are 950 miles of

telegraph lines within the colony. In January, 1898, the Portuguese force in Gasaland had a conflict with the natives on the Limpopo, who had captured a party of soldiers that was sent to arrest an unruly chief. Major Mousinho de Albuquerque was succeeded as Governor by Col. Ferreira in the autumn. Arrangements were made for the sale of Delagoa Bay to Great Britain in order to relieve the Portuguese colony from financial embarrassment. Germany recognized the British right of preemption, having come to a general understanding with England in regard to the African question. The impending decision of the Swiss arbitrators in the matter of the seizure by the Portuguese Government of the Delagoa Bay Railroad made the sale of the port and railroad almost a necessity, the arbitrators being expected to award over £1,000,000 to the American claimant, the widow of Col. Edward McMurdo, the original promoter and chief owner of the railroad.

CHEMISTRY. Chemical Theory.—In 1888, Mr. William Crookes, presenting a theory of the generation of the elements (in accordance with the periodical system) by successive evolutions, devised a graphic representation of the process, in which he supposed the space projection of the scheme to be spiral. In this figure the elements were placed along the spiral line in the order of their atomic weights, and so fitted themselves that the successive members of each group fell, as they should, one beneath another, in the line of an ordinate drawn vertically across the spiral. In order to find places for the new elements, argon, helium, and krypton, Mr. Crookes has modified his figure and made it, instead of a plain spiral, to run in the form of a succession of figure 8s. Such a figure will result from three very simple simultaneous motions (of the supposed primal matter): an oscillation to and fro (suppose east and west); an oscillation at right angles to the former (suppose north and south); and a motion at right angles to these two (suppose downward), which, in its simplest form, would be with unvarying velocity. "Let me suppose," he says, "that at the birth of the elements, as we now know them, the action of the *vis generatrix* might be diagrammatically represented by a journey to and fro in cycles along a figure-of-eight path, while, simultaneously, time is flying on, and some circumstance by which the element-forming cause is conditioned (e. g., temperature) is declining (variations which I have endeavored to represent by the downward slope). The result of the first cycle may be represented in the diagram by supposing that the unknown formative cause has scattered along its journey the groupings now called hydrogen, lithium, glucinum, boron, carbon, nitrogen, oxygen, fluorine, sodium, magnesium, aluminum, silicon, phosphorus, sulphur, and chlorine. But the swing of the pendulum is not arrested at the end of the first round. It still proceeds on its journey, and had the conditions remained constant, the next elementary grouping generated would again be lithium, and the original cycle would eternally reappear, and again the same fourteen elements. But the conditions are not quite the same. Those represented by the two neutrally rectangular horizontal components of the motion (say chemical and electrical energy) are not materially modified; that to which the vertical component corresponds has lessened, and so, instead of lithium being repeated by lithium, the grouping which forms the commencement of the second cycle is not lithium, but its lineal descendant, potassium. It is seen that each coil of the lemniscate track crosses the neutral line (the vertical joining the central points of the 8s) at lower and lower points. This line is neutral as to electricity, and neutral as to chemical action.

Electro-positive elements are generated on the northerly or retreating half of the swing, and electro-negative elements on the southerly or approaching half. Chemical atomicity is governed by distance from the central point of neutrality, monatomic elements being one remove from it, diatomic elements two removes," etc. The newly discovered inert elements, according to this scheme, fall into places as they stand on the neutral line: "Helium, with an atomic weight of 4, fits into the neutral position between hydrogen and lithium; argon, with an atomic weight of about 40, naturally falls into the neutral position between chlorine and potassium; while krypton, with an atomic weight of about 80, will find a place between bromine and rubidium. Of the later discovered elements, neon, with an atomic weight of about 22, may fall into the neutral position between fluorine and sodium; while metargon, with an atomic weight of about 40, may share the third neutral position with argon.

An attempt has been made by W. L. T. Addison to deduce atom forms from the crystalline modifications of the elements. Mitscherlich had observed that similar chemical compounds had the same forms, and could intercrystallize in the same crystals. Thus, calcium, magnesium, manganese, ferrous and zinc carbonates crystallize and intercrystallize in rhombohedra of apparently the same proportions. Form is thus consequent on chemical grouping and is a function of the groups of atoms. There is in the carbonate group, the author affirms, a central atom, carbon, about which the other atoms are grouped; and these outer atoms are the outer portions of the molecule, or those of easiest and first contact. The grouping is at four attractive places, and the form of the crystal being constant, the form of the molecule and the position of those areas of attraction must also be constant. The author discusses in considerable detail the form properties of the carbon crystal, and also those of the crystals of a number of other substances, drawing therefrom illustrations of his theory; and infers that malleability has a coincidence with atomic forms, permitting of interatomic mobility in their arrangement. Thus the atoms of carbon are of regular tetrahedral form, and any loose solid angle is as an apex to a tripod of equal limbs. Hence the stability of form and the rigidity of the diamond. If one angle of an aluminum atom becomes free, it may, unless checked by some other atom, rotate circularly about a line joining the two remaining angles. Thus aluminum shows a marked interatomic mobility by its malleability and its tendency to a variable crystalline form. If, in an atom of an element in Group II, Mendeleff's table, one of its areas of attraction be free, it may, unless checked by some other atom, rotate spherically about its stationary area of attraction. The interatomic mobility of such elements is shown by their increase of malleability over the elements of Group III. The interatomic mobility and malleability of the elements of Group I are increased over those of Group II by a joint in their rod form. Another factor in interatomic mobility is intensity of attraction. If chemical and crystal attractions be different manifestations of the same attraction, then, with the decrease of chemical affinity, there will be a decrease of rigidity and stability of form, with an increase of interatomic mobility and malleability. The relations described are well shown in the following comparisons: The diamond, very crystalline and hard; tin, malleable, breaking with crystalline structure; lead, soft and malleable; iron, nickel, and cobalt, brittle as compared with platinum; magnesium, zinc, cadmium, and mercury, increasing in softness with increase of atomic weight and decrease of

chemical activity; copper, silver, and gold, increasing in malleability with increasing atomic weight and decreasing chemical activity. Thus is given a set of relations evidencing the unity of chemical and crystal attractions.

In an address concerning his investigations with regard to the elements thorium, praseodymium, and neodymium, his revision of the atomic weights of the latter elements, and their probable positions in the periodic table, Prof. B. Brauner drew attention to the scientific importance of further investigation among rare earths, a field of research which promised results of the highest value. Prof. Ramsay, following, pointed out that the work described by Prof. Brauner was a monument of careful experiment and extraordinary industry. Although it might appear to many that an enormous amount of labor has been expended on an obscure corner of chemistry, it must be remembered that it was precisely such work which bore upon the whole of chemical theory, and indeed which might be expected to influence chemical manufactures at a future date.

Writing on the kinetic theory of gases, Prof. Ramsay shows how the observation by Lord Rayleigh of a discrepancy in the density of atmospheric nitrogen "has resulted in the discovery of a new constituent of air, argon; its discovery has led to that of a constituent of the solar atmosphere, helium; speculations on the ultimate nature and motion of the particles of which it is believed that gases consist have provoked the consideration of the conditions necessary in order that planets and satellites may retain an atmosphere, and of the nature of that atmosphere; the necessary existence of an undiscovered element was foreseen, owing to the usual regularity in the distribution of the atomic weights of elements not being attained in the case of helium and argon; and the source of neon was therefore indicated. This source, atmospheric air, was investigated, and the missing element was discovered."

Reviewing a number of experiments in which nascent hydrogen was concerned, D. Tommasi observed that if the properties exhibited by the substance were incident to an allotropic state of the gas, we ought always to obtain the same reactions, whereas the experiments prove that the reducing power of nascent hydrogen varies according to the reaction which has produced it. "And if this gas in the nascent state possesses a greater affinity than in the ordinary state, that is caused simply by the fact that the hydrogen at the moment of being set free is accompanied with all the heat which is produced while it is being set free. Consequently, nascent hydrogen is synonymous with $H + \text{cal.}$, and the differences that we observe between hydrogen produced by different chemical reactions have their reason in that these reactions do not all give off the same quantity of heat."

J. J. Van Laar attempts to explain a discrepancy in the operation of the law discovered by Ostwald for weak electrolytes—in that it does not hold for substances which, like HCl , are to a great extent dissociated in aqueous solution—by an assumption supported by several arguments, that the electrical conductivity of a good electrolyte is not an exact measure of its degree of dissociation. He believes that the degree of dissociation of a good electrolyte is modified by the passage of the current, the temperature of its ions and molecules being much higher than that of the surrounding medium.

Chemical Physics. Liquefaction of Hydrogen and Helium.—Prof. Dewar communicated his success in liquefying hydrogen to the Royal Society May 12, and to the Chemical Society May 19, 1898. He had already, in 1895, contrived an apparatus for

the production of a jet of hydrogen containing liquid, and shown how such a jet could be used to cool bodies below the temperature that could be reached with liquid air; but all attempts to collect the liquid hydrogen had failed. So far, no investigator had improved upon the results then described. He had constructed a larger apparatus on a similar type with the one then used, and on May 10 of the present year hydrogen was liquefied by allowing the gas, cooled down to $205^{\circ} C.$ and under a pressure of 180 atmospheres, to escape continuously at the rate of from 10 to 15 cubic feet per minute from the nozzle of a coil of pipe in a double silvered vacuum vessel of special construction surrounded with a space kept below $-200^{\circ} C.$ Liquid hydrogen began to drop from this vacuum vessel into another doubly isolated by being surrounded with a third. On this occasion 20 cubic centimetres of liquid hydrogen were collected in about five minutes; and on May 12, 50 cubic centimetres were obtained before the hydrogen jet froze up from the solidification of air in the pipes. The yield of liquid was about 1 per cent. of the gas. Hydrogen in the liquid condition is clear and colorless, showing no absorption spectrum, and the meniscus is as well defined as in the case of liquid air. The liquid is supposed to have a relatively high refractive index and dispersion, and the density appears to be in excess of the theoretical value, 0.18 to 0.12, deduced respectively from the atomic volumes of organic compounds and from the limiting density found by Amagat for hydrogen gas under infinite compression.

Helium was placed in liquid hydrogen, and a distinct liquid was seen to condense. A similar experiment made with the same helium tube in liquid air under exhaustion instead of in liquid hydrogen gave no condensation. It would thus appear that there can not be any great difference in the boiling points of helium and hydrogen. All known gases have now been condensed into liquids which can be manipulated at their boiling points under atmospheric pressure in suitably arranged vacuum vessels. With hydrogen as a cooling agent, it will be possible to get within 20° or 30° of the zero of absolute temperature, and its use will open up an entirely new field of scientific inquiry.

The study of fluorine has until recently been embarrassed by its intense chemical activity, which has proved destructive to the vessels in which the manipulation of it was attempted. It has been found, however, that chemical affinities are suspended at extremely low temperatures, and this encouraged the hope, which has been verified, that a means might thus be found for examining this substance in glass vessels. The earlier experiments proceeded on the supposition that fluorine approached hydrogen in volatility. Later investigations give it a critical value only a few degrees lower than that of oxygen, and a position as to volatility somewhere between that of oxygen and that of nitrogen. In the experiments of M. Moissan and Mr. Dewar, performed at the Royal Institution, in liquefying fluorine, the apparatus being cooled down to the temperature of boiling liquid oxygen ($-183^{\circ} C.$), the current of fluorine gas passed through without becoming liquid. It had, however, lost its chemical activity at this low temperature, and no longer attacked the glass. On lowering the temperature of the liquid oxygen by exhaustion, a yellow liquid was seen collecting, while gas no longer escaped from the apparatus. At this moment the tube by which the gas had been escaping was stopped, so as to prevent air from entering and liquefying, and the glass bulb soon became full of a clear, yellow liquid, possessed of great mobility. The color of this liquid was the same as that of

fluorine gas when examined in a stratum one metre thick. Fluorine thus becomes liquid, according to this experiment, at about -185°C . When the bulb containing the liquid fluorine was lifted above the surface of the liquid oxygen, the yellow liquid began to boil with an abundant disengagement of gas having all the energetic reactions of fluorine. Silicon, boron, carbon, sulphur, phosphorus, and reduced iron, cooled in liquid oxygen and then placed in an atmosphere of fluorine, did not become incandescent. At this low temperature fluorine did not displace iodine from iodides. The chemical energy, however, was still sufficiently great to decompose benzene or oil of turpentine with incandescence. A current of fluorine gas passed into liquid oxygen was observed on some occasions to give a flocculent white precipitate, which quickly settled to the bottom. It possessed the curious property of deflagrating with violence upon any rise of temperature. With freshly prepared liquid air instead of oxygen, fluorine easily became liquid at -190°C . With liquid oxygen as a refrigerant, the liquefaction took place at a temperature corresponding to the evaporation of the oxygen under a pressure of 437 millimetres of mercury. From these experiments it results that the boiling point of fluorine is very close to -187°C ., a number identical with Olszewski's boiling point of argon. By causing the liquid oxygen serving as a refrigerant to boil rapidly, a temperature of -210° was reached, at which temperature the liquid fluorine showed no sign of solidification. Some air which was accidentally admitted was immediately liquefied. In a few moments two distinct layers of liquid were seen; the upper, colorless layer, consisted of liquid air; the lower one, of a pale-yellow color, was fluorine. The density of the liquid was determined at 1.14; its capillarity was less than that of liquid oxygen; it was found to have no absorption spectrum, and is not magnetic.

The results of three experiments by J. H. Kastle and W. A. Beatty go to prove that light causes the combination of hydrogen and bromine at 196°C ., with an amount of change proportional to the time of exposure. In the dark at 196°C . the combination of the two gases is exceedingly slow, whereas in the sunlight the change is fairly rapid. Certain results that have been obtained would, moreover, seem to indicate that light causes the combination of the two elements even at 100°C .; but further experiments will be necessary to establish this point fully. The results seem to strengthen the analogy existing between chlorine and bromine. The difference in the temperatures necessary to enable the light to cause the combination of these elements with hydrogen is regarded as simply another rough measure of their relative affinities.

Experiments by W. J. Russell have shown that certain metals have the property of giving off, even at ordinary temperatures, vapor which affects the sensitive photographic plate, that this vapor can be carried along by a current of air, and that it has the power of passing through thin sheets of such bodies as gelatin, celluloid, collodion, etc.; in fact, so transparent are these bodies to the vapor that, even after it has passed through them, it is capable of producing clear pictures of the surface of the metal from which it came. Curiously, the most active metals are not the most volatile, and this and other facts make it evident that much still remains to be discovered on this subject. The experiments have been extended to active organic substances, and very interesting and various results have been obtained with oils, essential oils, mineral oils, liquors, etc.

The fact that the luminosity of phosphorus in air is increased by certain gases and inhibited by others

was investigated by Thomas Graham and later by Joubert, who demonstrated that luminosity and oxidation go hand in hand, and that inhibited phosphorescence could be, as in the case of pure oxygen, resuscitated by a reduction of pressure. The investigation has been extended by Herr Centnerzwer to embrace a large number of organic substances; and it has been found that the specific influence of the substances admits of certain general conclusions. Thus it increases in a homologous series as the number of carbon atoms increases; it is approximately the same for isomers; it is increased by a double linkage of carbon atoms; it is not generally affected by the substitution of chlorine or bromine for hydrogen; but is increased in a high degree by the replacement of hydrogen by iodine. The results have, however, not given any clear idea of the mechanism of the process by which the oxidation is suspended.

In his investigations of the thermal properties of gases and liquids, Prof. Sydney Young determined the vapor pressures and specific volumes of a number of substances both as liquids and as saturated vapor, from low temperatures to their critical points. Twenty-six substances were examined, including paraffin, benzene and its haloid derivatives, esters, alcohols, and acetic acid, and the data obtained allow of a simple classification in respect to their physical constants. Among other points of interest results show that the molecules of the alcohols at moderate temperatures are polymerized in the liquid state but not in the gaseous, while there is polymerization in both states in the case of acetic acid; also that the molecules of the alcohols and acetic acid appear to be polymerized to a considerable extent at the critical point. Ample proof was obtained in the course of the investigations that the views of Andrews regarding the behavior of a substance in the neighborhood of the critical point are correct, and also that the vapor pressure of a pure substance is independent of the relative volumes of liquid and vapor.

Having already found that nitrogen and oxygen gases, properly purified, form clear, transparent liquids, Prof. Dewar devised an apparatus for ascertaining the proportion of any gas in air that is not condensable at -210° , under atmospheric pressure or is not soluble in liquid air under the same conditions. It was found that 1 part of hydrogen in 1,000 of air was just detectable by his method. Ordinary air, containing 4 parts of carbonic acid per 11,000 parts, gave a turbid liquid from the solidification of the carbonic acid, and oxygen containing traces of chlorine behaved in a similar manner.

It is observed by A. Liversidge that when solid carbon dioxide is examined under the microscope it presents along its edges projecting wirelike crystals which have branching filaments issuing from them, apparently at right angles, resembling somewhat the groups of minute crystals seen in crystallized iron, gold, and ammonium chloride. The rapidity with which the carbon dioxide evaporates makes it difficult to catch the form of the crystals, either by photography or other means.

The property of producing a beautiful red coloration with nitro-prussiate of sodium and potash, either with or without the subsequent addition of acetic acid, is shared, Louis Simon has shown, by ordinary ethylic aldehyde with a large number of aldehydic and ketonic bodies; the addition of a few drops of aqueous methylamine and a few drops of dilute nitro-prussiate to a weak solution of ordinary ethylic aldehyde gives a beautiful characteristic blue color.

In a series of experiments made simultaneously by M. and Mme. Vallot at Chamounix (altitude

3,550 feet) and at Montanvert (altitude 6,256 feet) considerably more decomposition of oxalic acid by sunlight took place at the higher station, the mean difference being 2.1 to 1 for a difference of level of 2,697 feet. The result of the experiments shows that temperature plays a more considerable part than was suspected, but that in the combined action of the two the greatest influence is exercised by light.

In an experiment described by H. Pillat, a small iron ring was laid directly on the sensitive surface of a bromo-gelatin plate; at its side another similar ring was placed, but separated from the sensitive surface by a very thin sheet of microscopic cover glass. The latter was covered by a bell jar fastened to the plate with paraffin. The whole was left in the dark for four months. After developing the plate it was found that the iron ring under the jar had made no impression, but that the ring placed directly on the sensitive film had produced an image slightly larger than the ring itself, and therefore extending beyond the line of contact. The experiment is interpreted as showing that the phenomenon is not due to radiation but to a volatile body produced by the iron.

Experiments by T. Wiborgh for determination of the reducibility of iron ore indicate that every mineral giving a degree of oxidation of 77.8 at a low temperature will be easily reducible—that is, can be transformed into metallic iron by the ordinary furnace gas. This degree of oxidation corresponds to a particular and definite molecular condition, by reason of which no metallic iron is formed till it has been reached; but as soon as it has been reached the reduction proceeds very rapidly and the degree of oxidation diminishes.

New Substances.—M. Henri Moissan has obtained by the direct union of calcium and hydrogen a transparent crystalline hydride, with the formula CaH_2 . The hydride is stable at a high temperature, and is an energetic reducing agent. By its violent decomposition in contact with cold water it strongly resembles the definite crystallized carbide of calcium prepared by the author in the electric furnace. In this compound the hydrogen is comparable to the metalloids (carbon or phosphorus), and not to the metals. Even the appearance of the hydride distinguishes it from the hydrides of MM. Troost and Hautefeuille and the hydrogenized palladium of Graham. The author finds that there are in reality two series of hydrides, some in which the hydrogen seems to be in solution in the metals, and the others forming at a more or less elevated temperature, and presenting all the characteristics of definite chemical compounds.

Besides its curious action on water, M. Henri Moissan says, carbide of calcium acts as a powerful reducing agent, and, by virtue of this property, can furnish a number of new compounds by double reaction, but only when in contact with the body in a liquid state, or in a state of fusion at a sufficiently high temperature. In a state of fusion it acts energetically on the oxides, and if the metal will not unite with carbon—as is the case with lead, tin, and bismuth—it is set at liberty and can be separated or combined with other bodies, according to the condition of the experiment. If the metal or metalloid is capable of being carburized, a double decomposition takes place according to the formula $\text{RO} + \text{CaC}_2 = \text{RnC} + \text{CaO}$, in which R represents a metal and n a variable number of atoms of carbon. By this method definite crystallized carbides of aluminum, manganese, chromium, molybdenum, silicon, etc., have been prepared.

Carbide of sodium is obtained by Camille Matignon in the form of a white powder, with a density at 15° C. of 1.575, and appearing quite insoluble.

Dry air and oxygen have no effect on it at ordinary temperatures, but on gently heating combustion takes place, leaving a residue of CO_2Na_2 . In the presence of chlorine gas it becomes incandescent, and with bromine the reaction is almost of explosive violence. Iodine has a more moderate action, and C_2I_4 , melting at 185° C., can be obtained. Hydrogen has no action. When thrown into water, carbide of sodium explodes violently, giving a deposit of carbon. It also becomes incandescent in contact with CO_2 and SO_2 . It acts in the cold on a large number of organic substances. The primary and secondary alcohols give off acetylene, giving rise at the same time to a corresponding alcoholate.

Among other compounds of glucinum prepared by M. P. Lebeau is anhydrous fluoride, which is found in the form of a vitreous, transparent mass, or as a sublimate consisting of very small deliquescent crystals, melting in a similar manner to glass, but becoming very fluid and notably volatile at 800° C.; an oxyfluoride of practically constant composition, an almost transparent white body, completely soluble in water, and a borocarbide, which occurs in brilliant crystals with a metallic luster and a density of about 2.4, which does not change in the air at the ordinary temperature, but oxidizes superficially when heated to redness. The author was not able, in the reduction of glucina by boron in the electric furnace, to obtain any compound free from carbon.

By the action of hydriodic acid on carbide of glucinum, F. Lebeau has obtained an iodide of the formula GHI_2 , in beautiful transparent crystals. The new iodide reacts on a large number of bodies, and serves for the easy preparation of new compounds of glucinum, such as the phosphide, the sulphide, and the cyanide. It also readily unites with organic compounds.

Heating emerald in a carbon tube in the electric furnace for a few minutes, M. P. Lebeau found that the greater part of the silica distilled off, leaving a melted mass having a metallic luster; this consisted of a mixture of carbide of aluminum, carbide of glucinum, silicide of iron, and silicide of carbon. It is attacked by dilute acids, giving a solution containing glucina and alumina. By using hydrofluoric acid a fairly pure solution of fluoride of glucinum can be obtained at once, fluoride of aluminum being insoluble. If half its weight of carbon is added to the emerald a complete reduction is soon arrived at; the silica is completely eliminated either by volatilization or the formation of silicide of carbon, a body almost as unassailable as diamond.

A double iodide of potassium and lead, $\text{PbI}_2 \cdot 2\text{KI}$, has been observed by F. C. H. Brooks, of Queensland, Australia, to be formed by the addition of an excess of potassium iodide to a lead salt. It occurs in silky, acicular, almost white crystals, and possesses the property of being decomposed by water, with the formation of iodide of lead and potassium iodide. This property makes it a most delicate test for water. It even begins to decompose, losing its white color and becoming distinctly yellow, when exposed to the air of a room for a few minutes. It also becomes yellow when gently heated, but assumes its original color on cooling. Heated more strongly, it is partially decomposed, with the appearance of iodine vapors. While pure water decomposes this compound, a strong solution of potassium iodide dissolves it.

Among the subjects referred to by Dr. Charles Symes in his presidential address at the British Pharmaceutical Conference was the production of sympathetic esters and odorous substances closely related to the odors of flowers, plants, and animal matters. Besides artificial musk, vanillin, and the amyl, butyl, and ethyl compounds resembling fruit

flavors, with which the public have become familiar, there have been introduced heliotropine (resembling heliotrope), ionine and iraldine (violet), cumarine (new-mown hay), terpineol (lilac), bergamiot or linaloyl acetate (bergamotte), nerolin (neroli), jasmin oil, anesic aldehyde (hawthorn), geranol (rose geranium), carvol (caraway oil), safrol (oil of sassafras), etc. These products are used for toilet soaps, and also enter largely into the composition of the essences named after the flowers. They are more persistent than the natural odors. While these artificial scents may deceive the public and even be preferred by them, those who are accustomed to handling delicate perfumes have not much difficulty in distinguishing between the artificial and the real; and "it still taxes the skill of the chemist and the art of the perfumer to obtain that subtle delicacy of fragrance manufactured and elaborated in Nature's own laboratory."

Prof. Ramsay, who was assisted in his experiments by Morris W. Travers, communicated to the French Academy of Sciences June 6 and to the Royal Society June 9 the discovery of a fifth gas in the atmosphere, krypton. Having been furnished by Dr. Hampson with about 750 cubic centimetres of liquid air and having allowed all but 10 cubic centimetres to evaporate away slowly, on collecting the gas from that small residue in a gasholder, the authors obtained, after removal of oxygen with metallic copper and of nitrogen with a mixture of pure lime and magnesium dust, followed by exposure to electric sparks in presence of oxygen and caustic soda, 26.2 cubic centimetres of a gas showing the argon spectrum feebly, and, in addition, a spectrum which, they believed, had not been seen before. This spectrum was characterized by two very brilliant lines, one almost identical in position with D, and almost rivaling it in brilliancy. There was also a green line, comparable with the green helium line in intensity, and a somewhat weaker green. With these and other data of the spectrum given in their communication, the authors felt justified in characterizing the gas as a new one. Its density was determined at from 22.47 to 22.51 as a minimum, with a probable density of 40. The authors concluded from these and their other observations that the atmosphere contained a hitherto undiscovered gas with a characteristic spectrum, heavier than argon and less volatile than nitrogen, oxygen, and argon, monatomic, and therefore an element. The name krypton, or "concealed," was given to it, with the symbol Kr. Its atomic weight was calculated to be about 80, and it is placed in the helium series.

The authors continued these experiments in the search for gases in the atmosphere of a higher density than ammonia, as supposed by Dr. Johnstone Stoney. On June 16 they communicated to the Royal Society the results of experiments in fractionation of liquid argon. When the argon was separated as a liquid from liquid air, a considerable quantity of a solid was observed to separate partially round the sides of the tube and partially below the surface of the liquid. The liquid was evaporated slowly and the solid was volatilized. Two fractions of gas were collected from the liquid, the spectrum of the first of which was found to be characterized by a number of bright-red lines, among which one was particularly brilliant, and a brilliant yellow line, while the green and blue lines were numerous but comparatively inconspicuous. The wave length of the yellow line was found to be different from that of those of sodium, helium, and krypton, all of which equaled it in intensity. A new gas was therefore indicated which was named neon or "new." Its density was estimated at 14.67, a figure approaching

what the authors had hoped to obtain (10 or 11) to bring it into its position in the periodic table. The density has in fact been reduced by continued purification. Unlike helium, argon, and krypton, neon is rapidly absorbed by the aluminum electrodes of a vacuum tube, and the appearance of the tube changes, as pressure falls, from a fiery red to a most brilliant orange, which is seen in no other gas. With a density of 9.6 and consequent atomic weight of 19.2, neon would follow fluorine and precede sodium in the periodic table. The gas obtained by the volatilization of the white solid that remained after the liquid had boiled away, showed, when introduced into the vacuum tube, a very complex spectrum, totally differing from that of argon, while resembling it in general character. The density of this gas was determined to be 19.87, and it was found to be monatomic. The name metargon was given to it, and it was regarded as a distinct elementary substance, holding apparently the position toward argon that nickel does toward cobalt, having approximately the same atomic weight, yet different properties.

In a paper read before the British Association, Prof. Ramsay described still another gas as found in the last fractions of liquefied argon—a heavier gas than the others, which it was proposed to name xenon. It is very easily separated, for it possesses a much higher boiling point, and remains behind after the other gases have evaporated. This gas, which has been obtained comparatively free from krypton, argon, and metargon, possesses a spectrum analogous in character to that of argon, but differing entirely in the position of the lines. All the gases described are present only in very small amount.

Prof. Charles F. Brush described to the American Association experiments with a supposed new gas, a constituent of the atmosphere, for which he proposed the name of etherion. He had discovered it a year and a half previously while looking for occluded hydrogen in glass, and after many months of experiment had effected a partial separation of it from the air by diffusion. Its chief characteristic, as thus far determined, is its enormous heat conductivity at low pressure, which, even when it is mixed with a large excess of other gases, is about a hundred times that of hydrogen, the best gaseous conductor hitherto known. Evidence was cited by the author in his paper to show that etherion is a mixture of at least two different gases. Prof. Brush believes that it is related to the cosmic ether, whence the name he has given it. Sir William Crookes has remarked that the properties attributed by Prof. Brush to etherion are similar to those presented by the vapor of water under certain conditions.

In his presidential address at the British Association, Sir William Crookes described a new element, monium, as discovered by him among what he called the "waste heaps of the mineral elements." In the course of his spectroscopic researches with the rare earths he found a group of lines high up in the ultra-violet, faint at first, but which grew stronger with further purification, while the other lines of yttrium, samarium, ytterbium, etc., became fainter and "at last practically vanishing, left the sought-for group strong and solitary." As the group of lines that betrayed its existence stood almost at the extreme end of the ultra-violet spectrum, the author proposed to name the new element monium, from the Greek *μόνος*, alone. It offers a direct contrast to the recently discovered gaseous elements by having a strongly marked individuality, and exhibiting readiness to combine. Sir William Crookes estimates the atomic weight of monium as being not far from 118—greater than

that accepted for yttrium, and less than that for lanthanum.

A new compound described by J. H. Aherson in the "Berichte" of the German Chemical Society as occurring in many species of *Crassulaceae* has the chemical composition and molecular weight of malic acid, $C_4H_6O_5$, but differs from it to a very marked degree in behavior when heated. Ordinary malic acid under such circumstances yields water and fumaric acid or maleic anhydride, whereas the new isomeride is converted into a volatile double anhydride or malide, $C_8H_8O_5$, formed from two molecules of the acid, while small quantities of fumaric and maleic acids and other products are also formed. The new acid is, moreover, more strongly dextro-rotatory than ordinary malic acid, and yields salts that differ considerably from the malates. The author considers that the new compound is geometrically isomeric with ordinary dextro-malic acid, but that in it the free rotation of the two carbon atoms has in some way been arrested, so that the atoms and groups attached to them are not in that "most favored" position by the aid of which Wislicenus has been able to formulate the production of fumaric and maleic acids from the ordinary acid.

Compounds analogous to those formed by the combination of the green sulphate of chromium with sulphuric acid, but combined with chromic acid and the chromates, are described by A. Recoura. The existence of these compounds can easily be shown by adding a solution containing one molecule of the salt to a solution containing one molecule of chromic acid or chromate of potash. The combination takes place immediately, and that the sulphuric and chromic acids are both assimilated is proved by the fact that neither chloride of barium nor nitrate of silver will give a precipitate. The same combination of the green sulphate can be shown with two molecules of chromic acid or chromate of potassium; and the chromo-sulpho-dichromate of potassium, when dried at $150^\circ C.$, is, like the monochromate, insoluble in water. In a similar manner chromo-sulpho-trichromic acid can be obtained; but the combination stops here, for if four molecules be added a precipitate is obtained by nitrate of silver, when all the other conditions are exactly the same as before.

Adding a solution of carbonate of sodium in boiled water to well-washed and still moist chromous acetate, G. Baugh finds that the acetate immediately goes into solution and a reddish-brown body is precipitated. This is chromous sodic carbonate, and it forms two hydrates—one containing ten molecules of water and the other only one. The former, when examined under the microscope, appears in the form of little reddish-brown lozenges, either isolated or grouped together like the leaves of a book. It is very effervescent and is an energetic reducing agent. It decomposes water below $100^\circ C.$, with the disengagement of hydrogen, and is soluble in cold water, but its solubility decreases on keeping. The salt containing one molecule of water is a yellow powder which changes to brown when heated in a vacuum or in a current of hydrogen, and regains its yellow color on cooling. It decomposes at about $300^\circ C.$ into green chromium sesquioxide and carbonate of sodium. Heated in the air, it quickly oxidizes, forming chromate of sodium. Cold boiled water gradually transforms this salt into the one containing ten molecules of water.

By exhausting ordinary white bedding feathers with warm ether and leaving the etherized extract to cool, M. E. Drechsel has obtained a substance, fusible at $52^\circ C.$, easily soluble in chloroform, very slightly soluble in alcohol, and soluble in ether. On

analysis it gave figures corresponding to the formula $Si(OC_{26}H_{53}O)_4$. This substance may therefore be the orthosilicic ether of a bivalent alcohol, $C_{26}H_{53}O_2$, a homologue of cholesterine. The author has tried to procure a homologous ether from a solution of chloride of silicon in chloroform and cholesterine; he obtained a body with analogous properties, melting at $59^\circ C.$

It has already been shown that aniline and its derivatives, such as the bases of the pyridic series, were able, like ammonia, to combine with the haloid salts of zinc and cadmium and give well-crystallized bodies, the compositions and proportions of which have been described by D. Tombeck. This author has now found that compounds analogous to those used before give corresponding compounds with nickel, cobalt, magnesium, and manganese salts under conditions only slightly different. Aniline again, like ammonia, combines with several oxygenated salts. The general method for the preparation of the compounds formed in this case consists in pouring an excess of aniline into a solution of the metallic oxygenated salt; on agitation the crystalline precipitate is formed.

It is observed by W. Colebrook Reynolds that when the salts of certain other metals are added to a concentrated solution of potassium carbonate double salts are formed which are sometimes, as in the case of iron, copper, nickel, and cobalt, soluble in the solution, instead of the normal or basic carbonates which are formed when a dilute solution is employed. These double salts and their solutions are decomposed by pure water. To obtain them, the chloride, nitrate, or preferably the acetate, is added to a concentrated solution of potassium carbonate, and the liquid is left to crystallize.

A number of new cyclic ketones are obtained from the heavy oils distilled from Stockholm tar, by A. Behal, by first treating them with alkalis for removal of the acids, phenols, etc. The supernatant oil, after washing with distilled water, is shaken up with hydrochloric acid in proportions variable according to experience, until when diluted and adulterated with carbonate of soda, none remains unacted upon. Treating this solution two or three times with a current of steam, a slightly yellow liquid, smelling of menthol, remains. The ketones are separated from this liquid by means of hydrochloric acid. Pure ketones are very numerous and belong for the most part to the series of benzenic tetrahydrides.

Prof. Nasini, of Padua, and Signori Anderlini and Salvadori have been occupied for a considerable time with a study of the gases emanating from the earth in various parts of Italy, with the object of detecting the presence of argon and helium, and possibly of other elements they may contain. They reported to the French Academy of Sciences in July that they had observed in the spectrum of the vapors of the Solfatara di Pozzuoli, which contain argon, a bright line with a wave length corresponding to that of corona 1474 K, attributed to coronium, an element never before observed in terrestrial products, which should be lighter than hydrogen. Other lines were discovered in the spectra of various vapors, showing coincidences or proximity only, with some unimportant lines of various elements, which open further fields for investigation.

M. and Madame Curie, having observed that certain uranium and thorium minerals, such as pitchblende, chalcocite, and uranite, emit the Becquerel rays even more actively than the metals themselves, inferred that they contain some especially active unknown substance. Their chemical researches on the subject, as communicated to the French Academy of Sciences, Dec. 26, point to the presence of some body which they have been unable, indeed, to

isolate from bismuth, but which they call *polonium*. In experimenting with pitchblende they discovered a substance having still more than polonium the power of discharging electrified bodies at a distance by making the air a conductor, and of instantly impressing sensitive plates, and which has 900 times more active properties than uranium. The authors and M. Bémont, who has also studied this substance, have named it *radium*.

Hamilton P. Cady, of the University of Kansas, has obtained, by adding iodine to liquid ammonia, a dark, opaque liquid which changes to olive green and deposits a dark-green crystalline precipitate. This substance, dried over sulphuric acid, dissolves in ether, alcohol, and chloroform, but is insoluble in dilute acids, and is decomposed by them, generally with explosive violence. It is instantly decomposed by strong acids. Potassium-iodide solution dissolves the crystals, and they are decomposed and dissolved by hydrogen sulphide, sulphurous acid, and potassium hydroxide. The composition of the substance agrees well with the formula HN_3I , and the formation of the compound is supposed to take place according to the equation $11\text{NI}_2 + 9\text{I} = \text{HN}_3\text{I} + 8\text{NI}_2$.

In a third contribution to the Royal Society by R. T. Baker and H. G. Smith respecting the essential oils of the genus *Eucalyptus*, the species investigated are arranged according to their chemical, economic, and botanical affinities. It is shown that the essential oil of the red stringy bark *Eucalyptus macrorrhyncha*, besides containing a large percentage of edesmol (the stearoptene of eucalyptus oil), gives an oil of excellent quality, containing more than 50 per cent. of eucalyptol, and answering all the requirements of the British Pharmacopœia excepting that of specific gravity.

Well-burnt charcoal reacts readily, with considerable rise of temperature, with fuming nitric acid. When boiled for twenty-four hours with this acid, G. Dickson and T. H. Easterfield found that the charcoal passed entirely into solution and, on dilution with water, a black, amorphous substance was precipitated, while mellitic and non-crystalline acids remained in solution. The black, amorphous substance resembled the mellogen of Bartoli and Papasogli. It was easily soluble in alkali, and on oxidation by alkaline permanganate yielded oxalic and mellitic acids in about equal proportions. From charcoal 25 per cent. of its weight of crystalline ammonium mellitate can be obtained. Coal gives only a small yield of mellitic acid.

A new dyestuff is described by Mr. Henry G. Smith, of Australia, as obtained from the leaves of the "red stringy bark," *Eucalyptus macrorrhyncha*. This material, which in some respects is allied to arondendrin, is described as belonging to the quercetin group of dyes. Myrticolorin, as this new dye is named by the author, is a glucoside of quercetin, and breaks up, on boiling with dilute sulphuric acid, into quercetin and a sugar.

New Processes.—A new process for the manufacture of salts of the higher oxides described by H. N. Warren consists in the conversion of such alloys as spiegeleisen, ferromanganese, chromeisen, etc., by the direct contact of aqueous solutions of the alkalis, aided by electric energy, into their corresponding salts, such as chromates, manganates, etc. The baths for the conversion of these alloys have so far been constructed of glass and partially covered with graphite plates, which constitute the negative electrolyte, while the alloy in question is attached to the positive.

In the electrolytic process for preparing potassium chlorate at Villers-sur-Hermès, in Switzerland, thin platinum-iridium anodes and iron cathodes are employed, and the solution is maintained, by the

heat evolved by the passage of the current, at a temperature of from 50° to 60° C. The electrolytic cell is divided by a diaphragm of porous earthenware into a smaller cathode and a larger anode compartment, in order to prevent as far as possible the reduction of the chlorate by the hydrogen evolved at the cathode. With the proper electric current, the caustic potash formed at the cathode is transferred to the anode compartment fast enough to absorb all the chlorine evolved. The potassium chlorate crystallizes out in the anode compartment, its solubility being diminished by the employment of a saturated solution of potassium chloride as electrolyte. The diaphragm may be dispensed with, according to Oertel, if the solution is alkaline, because in that case potassium chlorate is not reduced, to any appreciable extent, by nascent hydrogen.

In the manufacture of phosphorus in the electric furnace siliceous material is added to the naturally occurring phosphates which are used to furnish a readily fusible slag. The finely powdered mixture of these substances with carbon is fed in through a hopper at the top of a brick-lined trough, through opposite sides of which the carbon electrodes are introduced. The fused slag collects at the bottom of the furnace, whence it is run off from time to time the same as from a blast furnace, while the mixture of phosphorus vapor and carbonic oxide passes to the condensing apparatus through an opening placed near the top of the furnace. More than 80 per cent. of the phosphorus contained in the materials is obtained. The loss that occurs is largely due to the presence of iron, which combines with phosphorus to form a phosphide that remains in the slag.

It is observed by M. P. Yvon that when coarsely powdered carbide of calcium is brought into contact with concentrated alcohol (from 90 to 95 per cent.) the carbide is attacked with considerable vigor, and continues to give off acetylene as long as any water remains in the alcohol. When the latter is quite anhydrous the disengagement of gas ceases. The use of carbide of calcium, therefore, enables us to determine whether or not an alcohol is anhydrous. It also furnishes a method of preparing absolute alcohol, for which a quantity of alcohol of 90 or 95 per cent. strength is placed in a flask and one fourth its weight of powdered carbide of calcium is added. The disengagement of gas, at first very vigorous, soon calms down. The flask is next frequently shaken up during two or three hours, and afterward left alone for twelve hours. The mixture is then transferred to a distilling apparatus and the separation of the alcohol is proceeded with, the first portions collected being put aside, because they contain small quantities of acetylene in solution; or, all the alcohol may be collected in the same receptacle, and afterward shaken up with a small quantity of dried sulphate of copper, which takes up all the acetylene held in solution. A second distillation can then be proceeded with without separating the acetylides of copper which is formed.

In the electrolysis of potassium and sodium chlorides, to produce, according to the conditions employed, caustic alkalis and chlorine, hypochlorites or chlorates, it is necessary to keep the primary products of the decomposition separate, and this is accomplished either by the use of a porous diaphragm or by means of mercury. It is not easy to make a diaphragm that shall be sufficiently durable with a solution of caustic soda on one side of it and of chlorine on the other, but diaphragms are successfully used. A more serious drawback is the impossibility of separating the caustic alkali from the chloride, but this is avoided to a great extent

in a very ingenious way by a process devised by Hargreaves and Bird, and in another process by Hulih, which is similar to it. When mercury is employed as the cathode the diaphragm becomes unnecessary, the mercury taking up sodium in contact with the salt solution and giving it up to pure water in another vessel. Several devices have been contrived for causing the mercury to perform these functions alternately, among which one by Mr. Castner is described by Mr. Thomas Ewan as being the most effective. The caustic soda obtained in this way is practically pure. If instead of keeping the products of the electrolysis of a salt solution separate they are mixed together in the cold, a solution of hypochlorite is formed.

Of two methods described by M. Moissan by which crystalline calcium may be prepared containing less than 1 per cent. of impurities, one depends upon the property possessed by calcium of dissolving in liquid sodium at a dull-red heat and separating in crystals on cooling. By treating the mass cautiously with absolute alcohol the sodium is removed and the calcium is obtained in brilliant white hexagonal crystals. In the other method similar white crystals of calcium are obtained by the electrolysis of fused calcium iodide. Calcium has been described by previous workers as a yellow metal, but in the light of M. Moissan's experiments that color was probably communicated by impurities.

Considering the production of volatile fatty acids from the washing waters of wool as now of practical importance, A. and P. Buisine give an abstract of the method of procedure by which the acids are distilled and entangled with watery vapor and condensed by it. The waters are first allowed to ferment for eight days, then boiled to drive off the ammonia, then acidulated with sulphuric acid and distilled. The volatile fatty acids found in the largest quantities are acetic and propionic, but we also get a fair percentage of butyric, valeric, caproic, and benzoic acids, with traces of formic and caprylic acids and phenol. Among other applications, this mixture of raw fatty acids is particularly suitable for the production of acetone, methyl-ethylacetone, and the higher acetones comprised by the mixture known as "oil of acetone."

In the commercial extraction of thorium by M. Wyronhoff and A. Verneuil the mineral is worked up by one of the usual methods as far as the production of the oxalates; these are precipitated by sodium carbonate and hydroxide, and the precipitate is dissolved in hydrochloric acid. This liquid is treated with small portions of barium peroxide until hydrogen peroxide no longer gives a precipitate. The deposit, which is of a reddish-orange color owing to the presence of cerium, contains all the thorium, together with from about 20 to 30 per cent. of impurities. Further treatment with hydrogen peroxide after a similar set of operations readily gives a very pure thorium. The method has been applied on the large scale, starting with five tons of monazite, with good results.

Hite's boiling-point apparatus is described by H. C. Jones as one in which the condensed solvent is not returned directly into the boiling solution. It consists of a tube about one fourth filled with glass beads, on which rests a platinum cylinder. The thermometer is immersed in the solvent inside the cylinder which serves to separate the condensed solvent and the boiling solution.

J. Hausser has found that of all the substances he has tried for the purification of water by filtration, the infusorial earth called *Kieselguhr* has given the best results. It is prepared by first finely sifting to remove all large particles, and then heating to about 800° or 1,000° C. On cooling, it must

be pulverized and levigated to obtain an impalpable powder—though this last operation is not necessary in the case of all the substances dealt with. To use it, the powder is mixed with a little water and thrown on a filter; as the liquid passes through, the powder remains, and forms a perfect layer for filtration and sterilization.

Having prepared cuprous iodide by one of the usual methods or by sprinkling iodoform in small quantities at a time upon a hot surface of copper, Bevan Lean and W. H. Wheatmough most conveniently separate iodine from it by heating in a stream of dry air at from 220° to 240° C. and condensing the vapors upon a cold surface. But although the greater proportion of the iodine in a given quantity of cuprous iodide is quickly expelled, it is not easy to expel the whole, and the authors are making further experiments upon this point. The action of air on cuprous iodide is shown not to be dependent upon the presence of moisture. Iodine liberated as described from cuprous iodide at 240° C. leaves no residue when volatilized at 75° C. If examined spectroscopically, no evidence of the presence of copper can be found. The melting point uncorrected is from 112.5° C. to 114° C.

In M. R. Metzner's process for preparing selenic acid with copper selenate, selenium is converted into selenious acid, and this is oxidized in solution with chlorine. Copper oxide is added to this liquid and evaporation gives fine prisms of copper selenate. Pure selenic acid is obtained from this by electrolysis.

Atomic Weights.—The variations in determinations of the atomic weights of nickel and cobalt have led to suggestions that these metals contained another new element, for which Krüss offered the name of gnomium. The results of analyses of the two metals by Richards and Cushman and by Richards and Baxter fail to confirm this supposition, and demonstrate that properly purified nickel and cobalt are homogeneous. Analyses of the bromides of the two substances gave as the identical values of their respective atomic weights, from 3 determinations each, for nickel, 58.69, and for cobalt, 58.99; O = 16.

A theory of valency is explained by Dr. Joachim Sperber which presumes the existence of elements that can not enter into chemical combination because their atoms have a prevailing tendency to transverse vibrations; there is, too, the author suggests, substantial proof of this, for the cosmic ether is without doubt such an element, since it does not enter into chemical combination, and its vibrations are transversal. Moreover, the chemically negative elements argon and helium have recently been discovered, and if they can not be made to enter into chemical combination—as up to the present time is the case—this, in accordance with the author's theory of valency, is to be attributed to a prevailing tendency on the part of their atoms to vibrate transversely. Julius Thomsen supposes that if the chemical character of the element is altogether a periodic function of the atomic weights, such a function must also obey their general laws. The periodic functions—the transition from negative to positive values, and inversely—must take place either by way of zero or of infinity; in the former case the transition is gradual, but in the latter case sudden. The former case corresponds to the gradual modification of the electrical character with the increasing atomic weight in the individual series of elements; but the latter case corresponds to that of the transit from one series to the next. Hence it may be supposed that the transit from one series of elements of the periodic system to the next takes place by way of an ele-

ment which is electrically indifferent. The valency of such an element would be null; it would, in this direction, form the transition between the two successive monovalent elements, the electro-negative and the electro-positive. Assuming that the transition between the various series of elements as the author has arranged them in his treatise on the systematic grouping of the elements is formed by such elements, it follows directly that their atomic weights expressed in whole numbers would be 4, 20, 36, 84, 132, 212, and 292, and the periodic system would then contain 7 series of elements. With such an arrangement of the elements the periodicity in their properties appears as a continuous function.

A determination of the atomic weights of praseodymium and neodymium by Harry C. Jones gave for the former substance 140.47 when $O = 16$, or 139.41 when $O = 15.88$; and for neodymium 143.6 when $O = 16$, or 142.52 when $O = 15.88$. The method of procedure adopted in the case of praseodymium consisted in reducing the superoxide to the sesquioxide in an atmosphere of hydrogen and converting the sesquioxide into the sulphate. For neodymium the oxalate was prepared from the double nitrate of neodymium and ammonium, and converted into the oxide by heating. Lanthanum, which was present in the salts of both the metals, was separated from them, but praseodymium in the neodymium salt could not be got rid of, and had to be calculated for. Absolute accuracy is not claimed for either of the determinations, because of the impossibility of effecting complete separations of the rare elements; but the author believes that his determinations do not vary more than 0.2 from the correct atomic weights. His determinations differ widely from those made by Von Welsbach, which give 143.6 for praseodymium and 140.8 for neodymium, O (presumably) = 16; but the author observes that if the values were reversed they would nearly correspond, and suggests that there may have been a typographical error in Von Welsbach's paper as published.

A. Rosenheim and P. Noge support the bivalence of glucinum, because it forms with the binoxalates compounds the preparation and properties of which they describe, and which are ordinary double salts. On the contrary, glucinum, like the bivalent metals, forms with the bitartrates complex compounds which are not double salts. The trivalent metals do not form the double salts. The molecular weight of chloride of glucinum, by the ebullition method, gives a number corresponding to the formula $GlCl_3$.

B. Brauner has been led in the course of experiments upon fractional crystallization to conclude that cerium is associated with an element which possibly has an atomic weight of 110; another earth of lower atomic weight is perhaps present. From experiments made upon ammonium thoroxalate, a new salt which he describes, the same author deduces the atomic weight of thorium as $Th = 232.44$, a result agreeing with the number obtained by Krüss and Nilson. Prof. Brauner has also contributed experimental data concerning praseodidymium and neodidymium, in the light of which he supposes that the eighth series of the periodic system may assume the form:

Cs	Ba	La	Ce	Pr	Nd
133	137.4	138.2	139.7	141	143.6.

Starting from the chloride and using the purest materials, F. P. Venable has calculated the atomic weight of zirconium— $H = 1.008$, $O = 16$, and $Cl = 34.45$ —in three equations, viz.: maximum, 91.12; mean, 90.78; minimum, 90.61. The atomic weight as determined by Bailey is 90.95. The mean value given in Clarke's recalculation is 90.40. The author

purposes repeating the determinations with the oxychloride.

The equivalent of cyanogen has been determined by G. Dean as 26.065; hence, if the atomic weight of carbon be 12.01, that of nitrogen is 14.055. Mr. Dean's method was by determining the amount of potassium bromide that will react with a known weight of silver cyanide dissolved in nitric acid.

The atomic weight of boron is calculated by F. P. Armitage, from determination of the water of crystallization of borax as 10.

The atomic weight of cobalt has been revised by T. W. Richards and E. P. Baxter, using the method of the analysis of cobaltous bromide, and determined by them at 58.99, oxygen = 16.

Chemical Analysis.—The principal difficulty in the analysis of silicates is the passage of the silica through the gelatinous state. The evaporation to dryness, to which recourse is ultimately had, tends to the partial entanglement of the bases in the residue. The analogies which exist between silicon, titanium, and tin would lead us to suppose that it is possible to obtain silica directly in the insoluble state by attacking a silicate, which would not become hydrated during its decomposition with sufficiently concentrated nitric acid. A. Leclère has shown that this result can be obtained by previously melting natural silicates with oxide of lead, a base which at a moderate temperature forms very fusible compounds with all the elements found as silicates, and retains the alkalies in a well-marked and characteristic manner. Porphyzied silicate is mixed with oxide of lead and is heated for half an hour or a little longer in a muffle at a reddish-orange heat to fusion as a liquid enamel, which is easily detached from the platinum of which the crucible is made if the bottom is cooled quickly. The enamel is decomposed by a mixture of not less than ten times its weight of equal parts of ordinary and of fuming nitric acid. By dilution with boiling water the lead is dissolved while the silica is collected on a filter. The insoluble hydrate obtained by this method retains about 10 per cent. of moisture when dried at $100^{\circ}C$. If we operate on pure silica and prepare the enamel in sufficiently thin sheets, so that there is no swelling under the action of the acid, we can obtain plates that show all the characteristic colors of the opal. The acid liquor containing the nitrates is concentrated to get rid of the excess of nitric acid, after which alcohol is added. On the addition of hydrochloric acid, slightly in excess, the lead precipitates immediately.

The application of Nessler's solution for the detection of ammonia gas in a gaseous atmosphere has been found defective when amines of the fatty series are present, since such substances deprive the mercurio-potassic iodide in alkaline solution of its special power. A more specific reaction for ammonia is recommended by S. Denigès, which consists in plunging the extremity of a glass stirring rod, wet with hypobromite of soda, into the gas to be tested. On contact with ammonia gas the wet part of the rod gives off a large number of small bubbles of nitrogen gas, so small that they appear as a white sheath round the extremity of the stirrer. At the same time the hypobromite loses its color. The property of behaving in this manner to hypobromite of soda belongs only to ammonia; the primary amines give a yellowish precipitate with this reagent, while the other fatty amines cause no notable phenomenon. M. Denigès describes two other reactions which are less characteristic than this one of the hypobromite of soda, but are interesting on account of their sensitiveness. But, like that of the mercurous nitrate, they belong as much to the fatty amines as to ammonia gas. One is the

invert reaction of formol, and is obtained by submitting a drop of commercial formol to the contact of ammoniacal vapors and then plunging it into a cubic centimetre of bromine water acidulated with a drop of acetic acid. In this manner a cloudiness or a yellow precipitate is obtained, which is produced by a bromine derivative of hexamethylene tetramine. Another reaction is based on the intense carmine coloration which one drop of an aqueous solution of hæmatoxyline or of extract of logwood takes in contact with even very small quantities of ammonia gas.

Finding that the numbers given by different investigators for the composition of the gases formed by the explosion of gun cotton are very variable, Christian Götting made a careful investigation of the solid and gaseous products arising from the explosion of a specimen having the composition, barium nitrate, 9.83 per cent.; nitrotoluol, 22.22 per cent.; and nitrocellulose, 67.96 per cent. The solid products consist of carbon, 9.51 per cent.; barium carbonate, 64.45 per cent.; and a residuum insoluble in acid, 26.05 per cent. The gaseous products consist of oxide of nitrogen, 10.75 per cent.; carbon dioxide, 27.48 per cent.; carbon monoxide, 36.02 per cent.; methane, 9.01 per cent.; hydrogen, 1.94 per cent.; and nitrogen, 14.8 per cent.

Oechsner de Coninck has given the results of experiments on the oxidation of some of the nitrified functions of the amides. Hydroxylamine is instantaneously decomposed with disengagement of nitrogen by solutions of hypochlorites of calcium, sodium, and potassium in an excess of alkali; acetaldoxime is easily decomposed in excess of the base. The diamines do not give off much nitrogen, but ammonia is separated. Carbonate of *guanidine* is immediately decomposed by the hypochlorites. The reaction is very distinct with the hydrazines, nitrogen beginning to come off at once and continuing to do so till cold. Cyanic and cyanuric acids are immediately destroyed by hypochlorites; but the results with most of the alkaloids, such as piperidine, nicotine, cocaine, etc., were negative. With antipyrine a certain quantity of nitrogen was given off.

A process for the decomposition of the bromides founded on the action of a mixture of permanganate and a soluble salt of copper has been devised by H. Baubigny and P. Rivals, and the authors have sought for a practical means of deciding if the decomposition is complete at any given moment. For this they use fluoresceine paper. Fluoresceine is prepared by heating for three hours the desired proportions of orthophthalic acid and resorcin to from 190° to 200° C. It is purified and treated with pure acetic acid at from 40° to 50° per cent. Paper is plunged into the filtered solution and allowed to dry. To use this paper it is moistened when the least trace of bromine gives a distinct rose color. Organic matter must be excluded.

For a simple qualitative research for small quantities of iodides or bromides in the presence of a large excess of an alkaline chloride, M. A. Carnot recommends the following procedure: Separate the iodine in a small quantity of the neutral solution by nitrous-sulphuric acid, and collect it in a few drops of sulphide of carbon. The violet or rose coloration is extremely sensitive. The iodine having been eliminated, add to the liquid a little of chromic and sulphuric acids; then heat to boiling, while keeping the flask covered with yellow fluoresceine paper. The very smallest quantities of bromine will be revealed by the characteristic rose color.

For the detection and estimation of carbonic oxide in the atmosphere, M. Armand Gautier passes air deprived of all dust, acid gases, and water,

through two tubes, one containing iodic anhydride, and the second pure powdered copper. The two tubes are so sealed together that they can both be placed in an air oven and heated to from 100° to 109° C.

Chemical Synthesis.—In the study by Losanitsch and Jovitschitsch of the action of the silent electric discharge in effecting chemical synthesis, the discharge being turned upon mixed gases led through the apparatus, carbon monoxide and water and carbon dioxide and hydrogen were condensed to formic acid; carbon dioxide and water yielded formic acid and free oxygen; carbon monoxide and hydrogen gave formaldehyde, which quickly polymerized; carbon dioxide and methane condensed to acetaldehyde, which soon formed aldol; nitrogen and water condensed directly to ammonium nitrate. Other interesting syntheses were obtained with sulphur compounds and with ammonia. In general, the reactions appeared to be the reverse of those produced by heat.

Another advance in the synthesis of albuminous substances has been made by Dr. Leo Liliensfeld, who, by means of the condensation of phenol and amidoacetic acid with phosphoric oxychloride, has succeeded in producing pepton, a substance which it had hitherto been believed could be obtained only from organic matters. The process was demonstrated by the author before the International Congress of Organic Chemistry.

Miscellaneous.—In a study on the sedimentation of turbulent liquids, M. W. Spring observes that water will sometimes hold finely divided matter of greater density than itself in suspension for an indefinite time, but that the presence of small quantities of salts in solution, or heating the liquid, will suffice to bring about precipitation. A medium formed of pure water containing finely divided silica or other non-electrolytic matter begins to clarify gradually as soon as two platinum electrodes are plunged into it and a current is passed through them. From this experiment the author proposes to develop a theory according to which the turbulent state is determined by a modification of the electric state of the finely divided particles, caused by the change in the energy of attraction of the matter forming them, consequent on disintegration. The presence of a dissolved salt or acid renders the liquid a conductor, and the discharge of electricity causes the particles to collect in flocculent masses, an explanation in accordance with Bodlander's view that only electrolytes are capable of producing clarification. Again, convection currents produced by warming the liquid give rise to electric currents which have the same effect. M. Spring proposes to explain the fall of rain accompanying thunderstorms on the same theory.

The results of a study by W. F. Hillebrand of the distribution and quantitative occurrence of vanadium and molybdenum in rocks of the United States indicate that vanadium occurs in quite appreciable amounts in the more basic igneous and metamorphic rocks, up to 0.08 per cent. or more of V_2O_5 , but seems to be absent, or nearly so, from the highly siliceous rocks. The limited evidence thus far obtained points to the heavy ferric aluminous sulphates as its source—the biotites, pyroxenes, and amphiboles. Limestones and sandstones seem to contain very small amounts of vanadium. From the few tests for molybdenum it appears as if this element were confined to the more siliceous rocks. It is present in no observed case in amount sufficient for quantitative measurement when operating on 5 grammes of material. The rocks examined were so selected as to represent many widely separated localities and numerous varieties.

In an investigation of the influence of certain inorganic salts on the rate of oxidation of sulphurous acid Mr. S. L. Bigelow observed that the oxidation of a sodium-sulphite solution by a current of air is hindered to a remarkable extent by the presence of a small quantity of alcohol. One part of alcohol in 10,000 of a one hundredth normal solution of sodium sulphite had a perceptible influence. In another case it was found that the admixture of mannitol with sodium sulphite in the proportion of one molecule to 800 diminished the rate of oxidation 50 per cent. Great difficulty was experienced in obtaining constant results, and it was found that the small quantities of impurity in the water used as solvent produced very large variations, and perfectly constant conditions could not be obtained.

Pure crystallized calcium, as prepared by M. Moissan, has a melting point at 760°C . The metal can be cut, but is much less malleable than sodium or potassium, as it can be broken and shows a crystalline fracture. When wholly free from iron nitride its color is brilliantly white, recalling that of silver. The density is about 1.85, and the metal is hard enough to scratch lead but not calcium carbonate. Neither chlorine, bromine, nor iodine attacks calcium in the cold, though the corresponding haloid salts are formed at higher temperatures. Calcium burns brilliantly in oxygen, and the temperature resulting from the combustion is so high that a part of the quicklime produced is melted and volatilized. When burned in air, the calcium unites with both of its constituents together and nitride and oxide are simultaneously formed. At a dull-red heat the metal combines with carbon with great energy, forming CaC_2 . The reducing power of calcium at high temperatures is remarkable, oxygen being readily removed by its action from sulphur dioxide, phosphoric anhydride, boron trioxide, silica, and the oxides of carbon.

Mr. Albert Granger has published an important research on the metallic phosphides, in which he reviews the different methods of preparing compounds of the metals with phosphorus and describes a number of them. He has found as general characteristics that phosphides are solid bodies, usually possessed of a metallic luster; that they are all more or less easily decomposable by heat, so that they almost all partly yield to heating in a current of gas. Chlorine and bromine attack them energetically and oxygen transforms them into phosphates. Some phosphides, such as the sesquiphosphides of iron, nickel, and cobalt, are oxidized with difficulty, and resist the action of aqua regia. Melted potash and bromide potash oxidize all the phosphides. The author attempted to prepare alkaline phosphides, but was stopped by the impossibility of separating the phosphide formed, either from the excess of phosphorus or the excess of metal. These impure phosphides, prepared by direct action, are brownish bodies, waxy in consistence, very inflammable, and decomposed by moisture. Electrolytic methods were used with success for the separation of phosphoric acid from the metals.

W. A. Shenstone and W. T. Evans have observed that when air is submitted to the silent electrical discharge it first contracts to a remarkable extent and then re-expands rapidly until it very nearly occupies its original volume. The residue contains a trace of nitric peroxide. Among the conclusions arrived at from the study of these phenomena are, that oxygen, when diluted in nitrogen, as in the air, yields a very large proportion of ozone; that from 80 to 85 per cent. of the oxygen present may readily be ozonized in the presence of moisture, and if great care be taken, as much as 98 per cent. of the oxygen may be converted into ozone. If the ozo-

nizing of the oxygen be not pressed too far, no nitric peroxide will be formed, but at a certain stage, which probably coincides or nearly coincides with the point at which the amount of ozone is at its greatest, that substance appears. In the presence of nitric peroxide, ozone is rapidly destroyed by the silent discharge, and its destruction is accompanied by a considerable destruction of nitric peroxide. The presence of watery vapor promotes the formation of ozone, but retards that of nitric peroxide. It was found to be impossible to ozonize the oxygen of air in the presence of a trace of nitric peroxide.

Carborundum, a compound of carbon and silicon in equal atomic proportions, having a hardness inferior only to that of the diamond, is prepared by electrically heating a mixture of powdered coke and sand, to which a little sawdust and salt are added to make the mass more porous, in a furnace through the end walls of which bundles of carbon rods are inserted and connected inside the furnace by a cylindrical core of small pieces of coke. The core is surrounded on all sides by the mixture of sand and coke. The passage of the current through the core gives rise, as Mr. Thomas Ewan describes it, to a cascade of small arcs between the pieces of coke, which soon raise the whole core to a very high temperature; and this is communicated to the surrounding charge. The carborundum is obtained in the form of steel gray to brownish green crystals, the coloration of which is due to iron. It is a valuable abrasive, cutting the hardest steel without destroying its temper, and is largely used in place of emery.

Prof. Noel Hartley and Mr. Hugh Ramage having found gallium to be a very widely distributed element in the earth, and to be present also in meteoric bodies, it was natural that they should inquire if it was also to be found in the sun. By the use of the photographic process and the radiating spectroscope they determined the wave length of the two principal lines and found it to correspond with that of two lines in Rowland's map of the solar spectrum, one of which had been recorded as an aluminum line. It is pointed out that gallium is present in every bauxite and shale examined by the authors, who therefore believe that this line in the spectrum of aluminum is really a gallium line. The two gallium lines are therefore regarded as identical with these two lines in the solar spectrum.

An account of the presence of titanic oxide in a cinderlike mass found near Monticello, Va., and in the soil was published by F. F. Dunnington in the "American Journal of Science" for December, 1891. The mass proved to contain 5.4 per cent. of titanic oxide, and subsequently, upon analysis, to be of identical composition with the soil upon which it was found; and the special formation of the mass was supposed to be the result of lightning. Other soil in the neighborhood was examined for titanic oxide, and it was found in all; and subsequently it was found in as many as eighty specimens of soil in different parts of the globe. Since the publication referred to, Mr. Dunnington has obtained samples of soil from parts of the earth's surface not then represented, and in them he has estimated the amounts of titanic oxide as a percentage of the original soil and also of the ignited soil, which latter figures should be compared with what is found in igneous rocks. Among these soils he specifies red and dark-gray loams from Brazil; gray sandy loam from Liberia; gray-brown loam from St. Helena; dark-gray and light-brown clays from Cerraloo, Mexico; light-brown and white clays from Sydney, Australia; brown-yellow loam from Launceston, Tasmania; brown-gray loam from Auckland, New Zealand; light-yellow clay from Arako, and dark-gray loam



The Naval School.

THE HARBOR OF VALPARAISO.

from Kanaja, Japan: fine brown and green gravel from earthquake eruption, Nayaya, Japan; eleven specimens from different provinces of Canada; and drillings from the deep well at Wheeling, W. Va. The total averages of all the percentages found are 0.57 for air-dried, and 0.66 for ignited soils; or, omitting the estimation of the St. Helena specimen, which was exceptional, 0.515 and 0.588. These facts are regarded by the author as pointing very plainly to the universal distribution of titanic oxide over the earth's crust. It appears strange, he observes, that any body existing in so considerable an amount in the soil should have been overlooked in the numerous analyses of soils that have been made.

Prof. J. B. Farmer and Mr. W. G. Freeman have demonstrated the action of germinating peas, cress, and barley in causing the deoxidation of a watery solution of methylene blue to a colorless liquid on shaking up the latter with air, while on adding a drop of hydrogen peroxide the blue color was restored. Green plants placed in the solution acted in a manner precisely similar to the seedlings, though the action could be modified by assimilation in sufficient light.

Grains of maize were sterilized by Jules Laurent by being kept in a weak solution of bichloride of mercury for two hours, and were then cultivated in a solution containing nitrate of lime, chloride of potassium, sulphate of magnesia, mono-potassic phosphate, and a few drops of a dilute solution of perchloride of iron. The maize developed normally, even to the complete opening of the flowers. On adding to the solution a known weight of glucose, and again of inverted sugar, it was found that the quantity of sugar absorbed is in relation with the dry weight of the plant.

Contamination of water by zinc is not very frequent. An instance is cited by Percy A. E. Richards in the "Chemical News," in which water drawn from a Berkshire (England) district and after being stored in a reservoir, supplied to a private residence for drinking purposes by a galvanized-iron pipe about two miles long, developed, on being exposed to the air for about an hour, a distinct scum on the surface. On analysis this was found to contain 5.12 grains of zinc carbonate per gallon. The presence of the zinc was easily detected in the unconcentrated water by both the ammonium sulphide and potassium-ferrocyanide tests. Upon boiling the water a precipitation of carbonate of zinc took place.

Of the chemical modifications that take place in fruits during their growth M. C. Gerber finds that the acids disappear, giving off at the same time more carbonic-acid gas than they can borrow from atmospheric oxygen and forming hydrates of carbon. The tannins disappear when the respiratory quotient is below unity, and do not form hydrates of carbon. So long as the tannins exist the fruits will not soften. As soon as they have disappeared, softening begins. Then follows obstruction of the intercellular meatns, alcoholic fermentation, and the formation of the perfumed ethers. At the same time the respiratory quotient becomes greater than unity.

CHILI, a republic in South America. The national Congress consists of a Senate and a House of Deputies, each elected by the votes of the male citizens able to read and write, the Senators by the provinces and the Deputies by the departments, in the proportions of one Deputy to 30,000 of population, and one Senator to three Deputies. The President of the republic is elected for five years by a college of electors. Federico Errazuriz was elected President for the term ending Sept. 18, 1901. His Cabinet at the beginning of 1898 was composed as follows: Premier and Minister of the Interior, An-

tonio Valdez Cuevas; Minister of Foreign Affairs, Worship, and Colonization, Raymundo Silva Cruz; Minister of Justice and Public Instruction, Domingo Amunátegui Rivera; Minister of Finance, Elias Fernandez Albano; Minister of War and Marine, Carlos Palacios Zapata; Minister of Industry and Public Works, Domingo Toro Herrera.

Area and Population.—The following table gives the area and population of the provinces and territories, according to the census taken on Nov. 28, 1895, compared with the population in 1885:

PROVINCES.	Square miles.	POPULATION.	
		1885.	1895.
Atacama.....	43,180	76,566	59,713
Coquimbo.....	12,906	176,344	160,898
Aconcagua.....	5,840	144,125	113,165
Valparaiso.....	1,637	208,320	220,756
Santiago.....	5,223	329,753	415,636
O'Higgins.....	2,524	87,641	85,277
Colchagua.....	3,796	155,687	157,566
Curicó.....	2,913	100,002	103,242
Talca.....	3,678	133,472	128,961
Linares.....	3,568	110,652	101,858
Maule.....	2,930	124,145	119,791
Nuble.....	3,556	149,871	152,935
Concepción.....	3,535	182,459	188,190
Bio-Bio.....	4,158	101,788	98,749
Malleco.....	2,856	59,492	96,032
Cautín.....	3,126	33,291	78,321
Arauco.....	4,248	73,658	59,237
Valdivia.....	8,315	50,938	60,667
Llanquihue.....	7,822	62,809	78,315
Chilo.....	3,995	73,420	77,750
Magallanes territory.....	75,292	2,085	5,170
Antofagasta.....	60,968	21,213	44,066
Tarapacá.....	19,300	45,096	59,751
Tacna.....	8,665	22,523	24,160
Total.....	293,970	2,527,320	2,712,145

Antofagasta was ceded to Chili by Bolivia after the war with Peru and Bolivia, and Tarapacá by Peru, and Tacna also on condition that its inhabitants should decide by a majority vote at the end of ten years whether they should become citizens of Chili definitively, or whether the province should be retroceded to Peru on payment of an indemnity. When the term was past, Peru was unable to act, owing to political disturbances, and hence the question has remained undecided. Serious differences have existed between Chili and the Argentine Republic relative to the boundary line in Patagonia, and the arbitration of the British Queen has been invited.

The census of 1885 was notoriously imperfect, and that of 1895 probably understates the actual population by at least 15 per cent. The number of marriages in 1895 was 14,779; of births, 110,154; of deaths, 92,197; excess of births, 17,957. The immigrants do not average over 600 a year. In 1896 Congress appropriated 867,000 pesos for the encouragement of immigration.

Finances.—The total revenue in 1894 was 83,436,000 pesos, and the expenditure 78,482,000 pesos. For 1897 the revenue was estimated at 79,200,000 pesos, of which import duties were expected to produce 22,500,000 pesos, export duties on nitrates 38,600,000 pesos, export duties on iodine 250,000 pesos, railroads 14,000,000 pesos, posts and telegraphs 1,000,000 pesos, rentals and sales 1,900,000 pesos, stamps 550,000 pesos, and other sources 400,000 pesos. The expenditure for 1897 was set down as 79,155,971 pesos, of which 8,905,713 pesos were assigned to the interior, 2,442,396 pesos to foreign affairs, worship, and colonization, 9,348,000 pesos to justice and public instruction, 18,035,083 pesos to finance, 11,864,456 pesos to war, 8,546,983 pesos to marine, and 20,013,840 pesos to industry and public works. For 1898 the revenue was estimated at 76,250,000 pesos, and expenditure at 76,205,164 pesos.

The foreign debt on June 30, 1897, amounted to

£17,639,270 sterling, and the internal debt to 30,169,042 pesos. The interest charge on the foreign debt is 12,675,733 pesos.

The Army and Navy.—The standing army, in accordance with the law of Dec. 31, 1896, consists of 9 regiments of infantry, 8 of cavalry, 5 of artillery, and a corps of engineers, with a total strength not to exceed 9,000 men. The roster contains 10 generals and 613 officers of other grades. The National Guard, formerly a volunteer force, has since 1896 been reorganized. Every Chilian from twenty to forty years of age is required to serve, and about 25,000 receive military instruction every year, the total strength being 432,000 men.

The Chilian fleet contains the first-class cruiser "Esmeralda," of 7,020 tons, the powerful small battle ship "Capitan Prat," of 6,900 tons, the iron-clad "Almirante Cochrane," of 3,500 tons, the old "Huascar," the new armored cruiser "O'Higgins," of 8,500 tons, the fleet new "Blanco Encalada," of 4,400 tons, the second-class cruisers "Presidente Errazuriz" and "Presidente Pinto," of 2,080 tons, the recently launched "Ministro Zenteno," of 3,600 tons, 11 gunboats of various sizes, 4 new English-built destroyers of more than 80 knots, and 15 first-class and 4 second-class torpedo boats.

Commerce.—The total value of imports in 1896 was 74,082,805 pesos, and of exports 74,359,414 pesos. In 1895 the imports were valued at 69,206,552 pesos, and the exports at 72,919,882 pesos. The values of the chief exports were 45,528,000 pesos for nitrate, 4,918,000 pesos for silver, 4,881,000 pesos for copper, 3,599,000 pesos for cereals, 1,561,000 pesos for coal, 1,443,000 pesos for iodine, 1,022,000 pesos for leather, and 948,000 pesos for gold.

Navigation.—There were 2,021 vessels in the foreign trade, of 2,732,000 tons, entered and 1,919, of 2,969,000 tons, cleared at Chilian ports in 1895. The tonnage entered coastwise was 6,232,000.

The commercial navy on Jan. 1, 1896, numbered 42 steamers, of 29,931 tons, and 146 sailing vessels, of 75,711 tons.

Communications.—There were 2,504 miles of railroad in operation in 1896, of which the Government owned 1,076 miles. The capital expenditure on the Government railroads and 600 miles that will become Government property at the end of their concessions was 77,540,011 pesos. On the completion of 46 miles over the Andes, Chili will be connected by an international railroad between Mendoza and Santa Rosa, 18 miles having already been built on the Argentine side and 18 on the Chilian side.

The Government telegraph lines, on Jan. 1, 1896, had a length of 6,965 miles, with 8,330 miles of wire. The number of dispatches in 1895 was 1,159,553. There were 2,613 miles of lines belonging to railroad and telegraph companies.

The post office in 1895 carried 56,465,924 internal letters and newspapers and 4,977,598 in the foreign service. The postal receipts were 1,749,021 pesos, and expenses 1,930,935 pesos.

Financial Crisis.—The state of armed peace maintained for two years on account of the Patagonian boundary dispute was more trying to Chili than to the Argentine Republic, with its growing wealth and population. Hence the Chilians were anxious to have the conflict come soon if the question must be decided by arms. The decline of the nitrate industry and other causes of depression, in connection with the unsettled state of the currency, led to a financial crisis which grew more severe as the year advanced. A ministerial crisis occurred on March 22, when all the members of the Cabinet resigned. Several weeks were passed in negotiations before a new ministry was formed. It was constituted on April 15 as follows: Premier, Carlos

Walker Martinez; Minister of Foreign Affairs, Juan Latorre; Minister of Justice, Augusto Luco; Minister of Finance, Dario Zanartu; Minister of War, Patricio Alcalde; Minister of Industry and Public Works, Emilio Bello Codecido. In order to clear the way for developments in the Argentine dispute, the new Cabinet made haste to arrange the old difference with Peru in respect to the conquered provinces of Tacna and Arica, the inhabitants of which should have decided in 1894 by a plebiscite whether they would remain under Chilian administration or return to Peruvian allegiance. A protocol was signed in the beginning of May for the execution of the treaty of Ancon, any differences arising as to the conditions of voting to be settled by the arbitration of the Spanish Government. In the beginning of July a monetary panic resulted from the continued withdrawal and exportation of gold in large amounts. The Government, on July 7, closed all the banks until July 12, and meanwhile discussed the advisability of issuing a paper currency. A *moratorium* of thirty days was next declared. Congress empowered the President to issue \$50,000,000 of paper money, partially guaranteed on the import duties, to borrow £4,000,000 sterling for the purpose of redeeming the notes after three and a half years, and to lend \$20,000,000 at 4 per cent. to the banks on good security. This law soon made gold go up to a premium of 46 per cent. and over, and caused merchants to countermand their orders for goods from Europe. The Government parted with its hoard of gold. Its military expenditure had exhausted its resources and the balance of the conversion fund. The periodical advances from the state to the Bank of Chili, which never had been in a position to meet its liabilities since the establishment of conversion in June, 1895, had also contributed to the financial straits of the Government. The failure of conversion and the return to a depreciated paper currency caused such indignation in financial circles that the Minister of Finance resigned, and Rafael Sotomayor was appointed in his place. Although the income for 1896 was estimated at \$83,000,000, and the expenditure at only \$76,000,000, the Minister of Finance asked Congress to re-establish the inheritance and donation duties, and to impose taxes on foreign insurance companies, tobacco, matches, and alcohol. The Chilian and Argentinian boundary commissioners met at Santiago in August. Barros Arraua, who had charge of the Chilian interest, took offense because President Errazuriz and Admiral Latorre insisted upon taking part in the conferences, and on Aug. 19 he resigned. His place was taken by Alberto Gonzales Errazuriz.

CHINA, an empire in eastern Asia. The Government, as defined in the collected regulations of the Tsing dynasty, is based on the Government of the family, and the Emperor exercises supreme paternal authority. The acts of the Government are largely regulated by precedents extending back thousands of years. The imperial administration is directed by a Cabinet composed of 2 Chinese and 2 Manchu members, advised by 2 delegates of the Hanlin College, who watch against any contravention of the dynastic regulations or Confucian precepts. The highest governing body is the Grand Council, which issues laws and regulations for the empire. Subordinate to the Cabinet are the boards of administration, presided over each by a Chinese and a Manchu. One board supervises the conduct and administration of the officials, another directs the finances, the third enforces the laws relating to the duties and ceremonies of the people, the fourth has charge of military matters, the fifth of public works, the sixth is the high court of criminal jurisdiction, and the seventh directs naval affairs. The Board of Censors, presided over by a Chinese and a

Manchu, watches over all the other bodies and reports to the Emperor shortcomings and delinquencies occurring in any branch of the public service. The Tsung-li-Yamen, or Foreign Office, is a modern body, which since 1861 has conducted all affairs with the Western nations and with the institutions directed by foreigners, such as the maritime customs and the Peking University.

The present Emperor reigns under the name of Kwangsu, signifying "continuation of glory." He is the son of Prince Chun, the seventh son of the Emperor Taokwang, and was born on Aug. 2, 1872, succeeded his cousin Tsaichun on Jan. 12, 1875, under the regency of his aunt, the dowager Empress Tsu-Hsi, born Nov. 17, 1834, and assumed the Government on March 4, 1889.

Area and Population.—The area of the 18 provinces of China proper is 1,338,841 square miles, with a population estimated at 386,000,000. The Chinese Empire, including besides these Manchuria, Mongolia, Tibet, Jungaria, and Eastern Turkestan, has a total area of 4,218,400 square miles, with 402,680,000 inhabitants.

The number of foreigners residing in the treaty ports on Jan. 1, 1897, was 10,855, of whom 4,362 were British subjects, 1,439 Americans, 933 French, 871 Portuguese, 870 Germans, 852 Japanese, 410 Spaniards, 407 Swedes and Norwegians, and 1,011 of other nationalities.

Finances.—The revenue and expenditure of the Peking Government were previous to the Japanese war estimated at about 89,000,000 taels a year. The expenses of the imperial province, including the cost of the Manchu garrisons and of the imperial household, were 19,478,000 taels, the cost of the northern naval squadron 5,000,000 taels, contributions for the southern squadrons were 5,000,000 taels, the annual expenditure on forts and guns for coast defense 8,000,000 taels, the cost of garrisoning Manchuria was 1,848,000 taels, that of the defense of Kansu and the Central Asian districts 4,800,000 taels, contributions to the provinces of Yunnan and Kweichow were 1,655,000 taels, interest and repayments of foreign loans 2,500,000 taels, railroad construction cost 500,000 taels, the cost of river embankments and other public works was 1,500,000 taels, the expense of the customs administration, including lighthouses and revenue cruisers, was 2,478,000 taels, and 36,220,000 taels were distributed among the 18 provinces for administrative expenses and the maintenance of the troops.

The receipts of the board of maritime customs for 1896 were 7,669,640 taels from imports, 8,455,528 taels from exports, 1,306,346 taels from the coasting trade, 611,026 taels of tonnage dues, 617,067 of commuted *likin* taxes, and 3,919,759 taels of opium *likin*; total, 22,579,366 taels.

The public debt at the beginning of 1897 consisted of a loan of £627,675 obtained in 1874, a loan of £1,604,276 raised in 1878, a silver loan for £1,505,000 raised in 1886, a German loan of £250,000

contracted in 1887, another silver loan of £1,635,000 raised in 1894, a gold loan of £3,000,000 obtained in 1895, various other loans of that year amounting to £2,000,000, the Anglo-German loan of 1896 amounting to £16,000,000, bearing 6 per cent. interest, and



TEMPLE AND PRIESTS' DWELLING ON A ROCK IN THE YANGTSE-KIANG, NEAR HANKAU.

about £5,000,000 of internal loans contracted in 1895; total, £49,691,951 sterling.

Communications.—The railroad from Tientsin to Peking, 73 miles, was opened on June 30, 1897. One 12 miles long has been built to connect Shanghai with Wusung. The railroad that brings coal down from the Kaiping mines to the Petang river has been continued through Taku to Tientsin and Linsi and is being carried through to Shanhaikwan.

Pekin has telegraphic communication with Europe by a connection with the Russian overland line in the Amur valley, as well as by the cables. The imperial system of telegraphs consists of lines joining the capital with Tientsin and the chief towns of Manchuria up to the Russian frontier, with Niuchwang, Chifoo, Shanghai, Yangchau, Suchau, all the ports on the Yangtse-Kiang, Canton, Wuchau, Lungchau, and the other principal cities of the empire, and, by the line running from Canton inland to the capital of Yunnan, with the Indian telegraph system, with which a connection is made at Manwyne, on the frontier of Burmah. From Shanghai a line runs to Amoy, Fuchau, Kashing, and Ningpo. Fuchau is also connected with Canton. From Taku a line runs through Port Arthur to the Korean capital.

Commerce.—The total value of imports in 1896 was 202,589,994 taels, and of exports 131,081,421 taels. The imports of cotton cloth were valued at 47,233,000 taels; cotton yarns, 32,010,000 taels; opium, 28,652,000 taels; rice, 15,022,000 taels; kerosene, 9,083,000 taels; sugar, 7,002,000 taels; woolen cloth, 5,080,000 taels; sea products, 4,988,428 taels; iron, 3,680,000 taels; coal, 3,540,000 taels; fish, 3,-

128,000 taels; tin, 2,357,000 taels; matches, 2,100,000 taels; machinery, 2,064,000 taels. The exports of raw silk amounted in value to 81,672,000 taels; tea, 30,157,000 taels; silk goods, 10,418,000 taels; cotton, 5,018,000 taels; hides and skins, 4,471,000 taels; straw goods, 3,907,000 taels; beans, 3,881,000 taels; clothing and shoes, 2,088,000 taels; paper, 1,858,000 taels; fireworks, 1,828,000 taels; pottery, 1,628,000 taels; sugar, 1,478,000 taels; wool, 1,448,000 taels; tobacco, 1,445,000 taels; oil, 1,422,000 taels. The exports of tea were 1,712,841 piculs, against 1,865,680 piculs in 1895.

The value in taels of the trade with different countries in 1896 is shown in the following table:

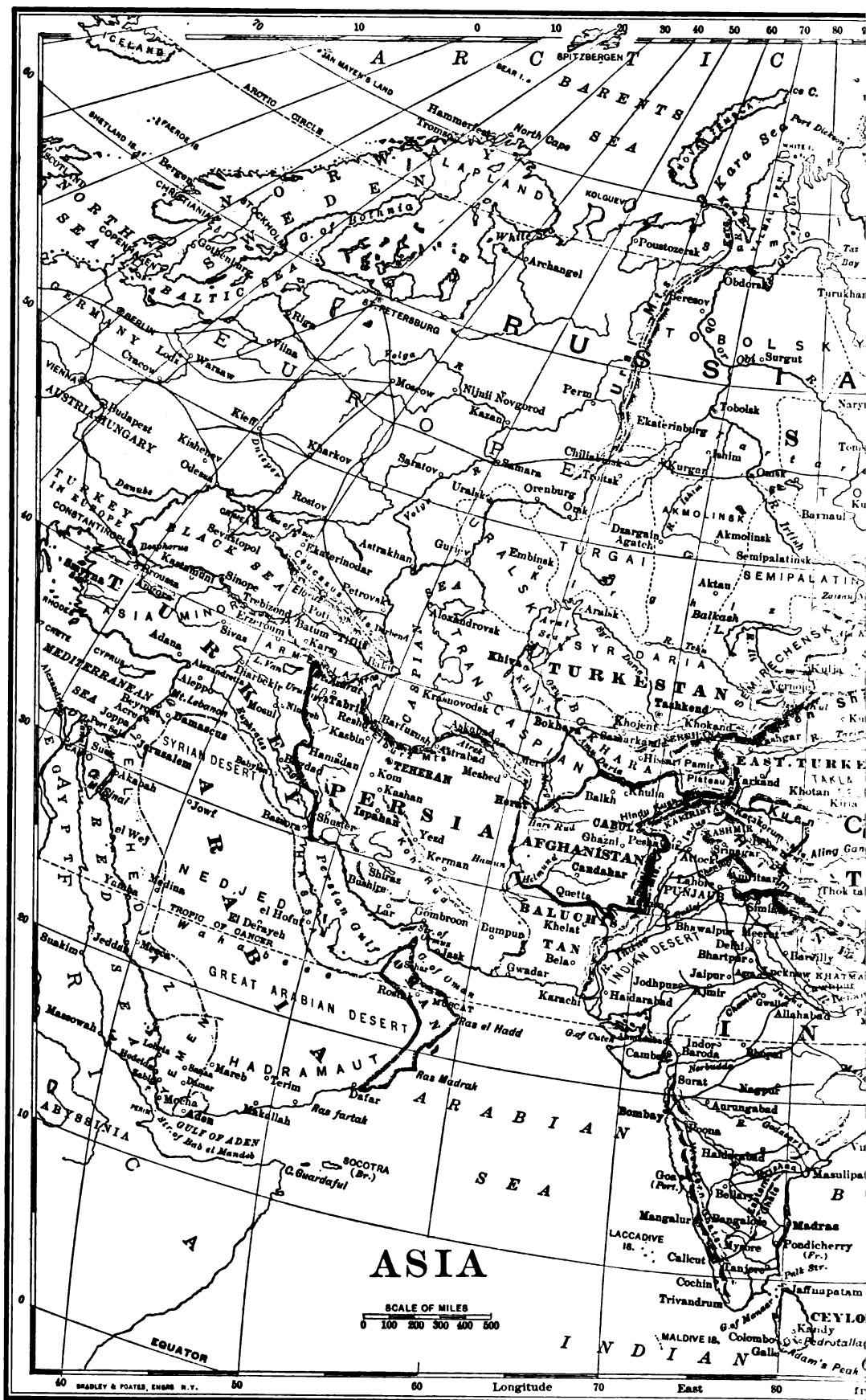
COUNTRIES.	Imports.	Exports.
Hong-Kong.....	91,357,000	54,053,000
Great Britain.....	44,571,000	11,282,000
Japan.....	17,390,000	11,379,000
Continent of Europe.....	9,432,000	18,078,000
India.....	23,027,000	2,178,000
Russia in Europe.....	2,082,000	4,266,000
Russia in Asia.....	197,000	10,641,000
United States.....	11,930,000	11,124,000
Macao.....	3,964,000	2,223,000
Straits Settlements.....	3,240,000	1,739,000
Other countries.....	4,468,000	4,120,000
Total.....	211,623,000	131,061,000

The imports include re-exports to the amount of 9,033,000 taels. In the figures for Japan are reckoned 5,821,000 taels of imports from and 666,050 taels of exports to Formosa, the former Chinese dependency, which was ceded to Japan in accordance with the treaty of peace and formally transferred on June 2, 1895.

Navigation.—There were 40,495 vessels, of 33,490,857 tons, entered and cleared at the ports of China during 1896. Of this number, 19,711, of 21,847,082 tons, were British; 15,969, of 7,251,292 tons, Chinese; 2,090, of 1,945,019 tons, German; 546, of 565,992 tons, Japanese; 427, of 434,415 tons, French; and 143, of 165,578 tons, American.

Lease of Kiauchau to Germany.—The Germans, who obtained settlements in Tientsin and Canton in October, 1895, have for years been in quest of a coaling-station on the China coast to serve as a *point d'appui* for their political influence and growing commercial interests, just as Hong-Kong had done for the English. Such a station had been offered in southern China, but it was not accepted for fear of offending English and French susceptibilities. At length Kiauchau, which would open to German enterprise the mineral and other resources of the Shantung peninsula, was selected as a central point where German activities would find a promising field without trenching upon the British sphere of interest that centers in Shanghai or on the recognized Russian sphere in the north. A missionary outrage opportunely afforded a pretext for action. Two German Roman Catholic missionaries in Yeng-tu were brutally murdered about Nov. 1, 1897. The outrage was charged to a gang of bandits by the Chinese, but the evidence of a missionary who had managed to escape proved the falseness of this explanation and the complicity of the authorities, who had been prompted by the anti-European expressions of Li-Ping-Heng, the Governor of Shantung province, just promoted to be Viceroy of Szechuan. The German flagship "Kaiser," with the "Prinzess Wilhelm" and "Arcona," on instructions from Berlin, proceeded to the north from Shanghai, and anchored in the harbor of Kiauchau. Admiral Diederichs sent word to the general commanding the garrison that he had come to obtain satisfaction for the murder of the missionaries and that he intended occupying the forts. These were hastily evacuated as the Germans lowered their boats for landing, and the general sent word that

he yielded to superior force. The Germans landed 600 marines on Nov. 24 and ran up their flag. The "Comoran" and "Irene" arrived later, and before the middle of November the crews of the German ships had built themselves warm quarters on the shore. The Germans had chosen Kiauchau for a permanent naval station and commercial *entrepôt* on account of its prospective value as a railroad terminus, as the rich coal fields of Shantung are easy of access and lines can be built at the least cost westward into Honan and the great coal fields of central China and northward to Peking. There is river and canal communication with the interior, and the harbor is safer and better than the Chifu roadstead, though the entrance has become silted and the whole coast is upheaving. Kiauchau was a flourishing seaport until first the completion of the Grand Canal and afterward the development of Chifu as a treaty port diverted its whole trade in other directions. Railroads, which from the configuration of the country can find no other outlet, are expected to make it again the chief port of the peninsula. Prince Heinrich of Prussia sailed for China with re-enforcements on the "Gefion" and "Deutschland," after a parting speech of the Emperor at Kiel vaunting achievements to be wrought with the "mailed fist." His ships were detained by accidents at Suez, and long before his arrival the Chinese Government acceded to the German demands. These were that Li-Ping-Heng be dismissed from office and never be employed again; that a Catholic church be built and an imperial tablet erected; that the murderers be punished, expiatory chapels be erected in memory of the murdered priests, and residences built for missionaries at seven new stations; that the Government promise that such attacks should never occur again; that, should railroads be established in any part of Shantung, Germans should be allowed to open coal mines; that German capitalists should have the privilege of building railroads and operating mines throughout the province; and that China should pay 1,000,000 taels expenses incurred in the settlement of the case. The Chinese Government demurred to this last demand and to the one for the degradation of Li-Ping-Heng, and agreed to all the other propositions. It consented to have a line of railroad built by a German syndicate from Kiauchau to Tsi-Nang-Fu, with the prospect of connecting it with the projected trunk line, both Germans and Chinese being at liberty to take shares in these lines. While the Chinese were pressing for the evacuation of the occupied fort fresh missionary outrages gave the Germans an excuse for continuing the occupation, while renewing their demand for the punishment of Li-Ping-Heng, which was in the end conceded. Meanwhile negotiations were going on both at Peking and at Berlin, looking to a cession of Kiauchau Bay and adjacent territory in return for the service performed by Germany, in conjunction with Russia and France, in securing the retrocession of Leao-tong by the Japanese. As a result of long discussions the Tsung-li-Yamen agreed to lease to Germany for ninety-nine years the Bay of Kiauchau and a strip of territory, the sovereignty to continue to vest in China. In the event of Germany thereafter being desirous to hand Kiauchau back to China, the latter country agreed to reimburse all moneys expended and to give Germany another suitable port. The treaty, which was signed at Peking on March 6 by Baron von Heyking, the German minister, and Li-Hung-Chang and Weng-Tung-Ho, gives the right of free passage to German troops throughout a zone of 50 kilometres surrounding Kiauchau Bay, in which zone the Emperor of China, while retaining all rights of sovereignty, will undertake no measures, issue no ordinances, nor station troops or undertake any





military act without the previous consent of the German Government. In particular he promises to oppose no obstacle to the regulation of the water courses. The lease embraces the territory on both sides of the entrance to the bay, where Germany undertakes to construct fortifications for the protection of the buildings to be erected for repairing and equipping ships and storing materials and supplies for them. Chinese ships of war and merchantmen will have the same facilities for entering and leaving Kiauchau Bay that may be extended to the shipping of other nations and will be subject only to the same dues. The delimitation of the customs boundary and the levying of customs were left to be arranged by future agreement in such manner as to preserve all the interests of China. In a secret agreement China granted commercial and industrial concessions and monopolies to Germany covering the whole peninsula of Shantung. Marines were brought on transports from Germany until the garrison numbered 3,000. The killing of a German sentry on Jan. 24 at Tsimo, in the neutral zone, 80 miles from Ching-Tau-Kau, the German headquarters, was made the ground for demanding another railroad concession. The administration of the Kiauchau territory was intrusted to the German Naval Department. The railroad concessions were for lines from Kiauchau to Tsi-Nang-Fu and to Ichau, near the border of Kiangsu, and for a third line connecting the two. These railroads, which will have a total length of 700 miles and will cost about 90,000,000 marks, are to be connected with the projected Chinese trunk line, and they will tap the Wei-Hsien and Poshan coal fields, the working of which is granted to Germans. In the province of Shansi a German syndicate had obtained concessions of coal and iron mines, petroleum, and tar deposits. Capt. Rosendahl was appointed Governor of Kiauchau and commander of the naval forces there.

In reply to the inquiries of the British ambassador, the German Minister of Foreign Affairs, Herr von Bülow, on Jan. 28 said that he was convinced that Kiauchau would be opened to the commerce of the world, that the German Government shared the English view of colonization and believed that system to be the best in the interests of the colonies themselves. This was interpreted by the English as an assurance that it would be made a free port like Hong-Kong. The English Government, just before occupying Wei-Hai-Wei, intimated that it had no intention of injuring or of calling in question German rights or interests in the province of Shantung, or of creating any difficulties for the German Government; that in particular it did not intend to lay down railroad communications with the interior from Wei-Hai-Wei. When Prince Heinrich of Prussia was received in audience he did not, like European princes and envoys heretofore, have to prostrate himself in humble *kowtow* as a suppliant vassal, below eighteen rows of Chinese nobles and officials of descending ranks, before the Emperor, sitting aloft, veiled in clouds of incense, within the dim recesses of the gorgeous Hall of Harmony. He was received by Kwangsu and the dowager Empress in the Summer Palace on apparently equal terms.

Loan Negotiations.—China applied for financial advice and aid to the British, Russian, and other governments to enable her to raise the money to meet the last installment of the Japanese war indemnity and secure the evacuation of Wei-Hai-Wei, which the Japanese held as a pledge until the debt should be finally paid. Japan, on account of her own financial difficulties, pressed for a prompt payment of the balance.

The British Government offered to provide a loan

of £12,000,000 at par to run fifty years, at an annual rate of 4 per cent., including interest and sinking fund. The conditions attached to the loan were, besides a lien on the unpledged customs revenues and certain *likin* duties in the event of default, that all the rivers and inland waters of China be thrown open to free steam navigation; that Talienwan, Siang-Yin, or Yuen-Chau-Fu in Hunan, and Nanning should be opened as treaty ports; that the Chinese Government should enter into a covenant with Great Britain never to alienate any part of the Yangtse-Kiang valley to any other power. As the opening of Talienwan to foreign commerce would checkmate Russia's design to obtain possession of that port as the southern terminus of the Trans-Siberian Railroad, the British proposal aroused the most active opposition on the part of Russia. For similar political reasons France regarded the proposed opening of Nanning as designed to hem in the expansion of her influence in the south. It is close to the border of Tonquin, in the province of Kwangsi, on an important southern tributary of the Si-Kiang, or West river, the free navigation of which had been long resisted by the French Government in opposition to British demands. The Russian *chargé d'affaires*, M. Pavloff, threatened reprisals and the withdrawal of Russia's friendship and protection if China should make Talienwan an open port. The Japanese minister supported the British demands. M. Pavloff offered to provide a loan guaranteed by the Russian Government on terms as favorable as those offered by the British Government. He was supported by M. M. Dubail, French *chargé d'affaires*, and French banks offered to provide a part of the funds. The Chinese Government, deterred by Russian menaces and for fear of English resentment from accepting either offer, approached the two governments with the suggestion of a compromise whereby each power would provide one half of the loan on its own financial terms, the other conditions to be adjusted by agreement between the two powers. In their answer on Jan. 31 to Sir Claude MacDonald the Tsung-li-Yamen said that Russia had used such threats that they saw no way out of the difficulty but coming to an arrangement with Japan and borrowing neither from England nor Russia. They said that a promise of protection against Russia was the only thing that would help them. The proposal to divide the loan with Great Britain was rejected by Russia. The Chinese Government authorized an internal loan of 100,000,000 taels, which met with no response. Japan could not be induced to postpone the date of payment. At length, in the latter part of February, a loan of £16,000,000 was arranged with the Shanghai and Hong-Kong Banking Corporation and the German Asiatic Bank, to be taken at 90 and pay 4½ per cent. interest, redeemable in forty-five years by means of a sinking fund. It is secured on the unpledged customs, estimated at 3,000,000 taels a year, and on the *likin* of certain districts and ports of the Yangtse valley and the province of Chekiang and the salt *likin* of certain districts, which are placed under the control of the maritime customs. These *likin* revenues are estimated at 5,000,000 taels, making the total hypothecated revenue about 80 per cent. above the interest and sinking fund of the loan, amounting to £835,232 annually. The remaining portion of the Japanese indemnity, amounting to 78,000,000 taels, or 119,000,000 yen, was paid over on May 7 in a lump sum by the transfer in London and Berlin of £12,008,857, the value at the treaty rate of 39.48d. to the tael, the market rate having fallen meanwhile to 33d. The Japanese Government took £2,000,000 of the new loan.

Lease of Port Arthur and Talienwan to Russia.—Great Britain had refused to join Russia, France, and Germany in demanding the evacuation of Leao-tong at the close of the China-Japanese War, as it was contrary to her policy to alienate the rising naval power of Japan or to help Russia to obtain political control over Manchuria and access to the sea, which, it was known, was the object of the intervention. To keep Russia from obtaining an ice-free port in the Pacific has been the settled policy of England since the Russians first appeared on the Amur and began to push southward in order to get below the line of winter ice. This persistent Russian policy the English thought they had finally defeated when they seized Port Hamilton in 1886, and under threat of war compelled the Russians to evacuate Port Lazareff and give a pledge that they would not occupy Korean territory under any circumstances whatever. After the Siberian Railroad was seen to be a success and the military power of Russia in the far East had become formidable, the British opposition to a winter outlet for the railroad was continued with less hope of effectually barring the way. The Rosebery Cabinet shrank from an alliance with Japan to uphold the Shimonoseki treaty in defiance of the powers, whose intervention was ostensibly designed to protect the integrity and independence of China, but really to keep the door to the Pacific open for Russia. The Salisbury Cabinet, desiring Russian support in coercing the Sultan to introduce reforms in Armenia, directed its attention to the conciliation of Russia. Mr. Balfour declared in February, 1896, that, so far from regarding with fear and jealousy a commercial outlet for Russia in the Pacific Ocean which should not be icebound half the year, he would welcome such a result as a distinct advance in this far-distant region. Lord Salisbury scouted as a superstition of antiquated diplomacy the idea that there was any necessary antagonism between Russia and Great Britain.

When Kiauchau Bay, which the Russian minister at Peking had warned the Chinese Government to fortify lest it should fall into the hands of the Germans, was seized by them with the apparent acquiescence of Great Britain, Russia began to suspect a hostile Anglo-German alliance in the far East. When the British Government made the opening of Talienwan as a treaty port a condition of the proposed loan she found herself confronted once more by the danger that threatened her in the treaty of Shimonoseki, for Talienwan was the prospective terminus of the Manchurian Railroad, the only available harbor between the Yalu and Port Arthur.

While the loan negotiations were proceeding the Russian squadron, which the year before had wintered in Kiauchau Bay, now occupied by the Germans, was anchored at Port Arthur, having on Dec. 22, 1897, obtained permission to winter there and a prior right of anchorage from the Chinese Government. British men-of-war proceeded to that fortified harbor while the British minister, Sir Claude MacDonald, was pressing the British loan on the Chinese Government. Under the treaties foreign war ships had the right to enter any Chinese harbor. Nevertheless, the Russian ambassador at London complained on Jan. 12 of the presence of British ships at Port Arthur, and received the reply that they would soon move. On Jan. 19 Count Muravieff complained again, saying that the action of the British gunboats in entering Port Arthur was looked upon as so unfriendly as to set afloat rumors of war. The demands for the withdrawal of the ships were repeated, and on Jan. 26 the Russian ambassador in London was informed that the last gunboat had left. The British admiral had

acted in compliance with the assurance given to the Russian ambassador that the vessels were not likely to remain, so that Sir Claude MacDonald was able to assure the Chinese that the report that the ships had been ordered to leave on account of Russian representation was a pure invention.

In the previous October, when insisting on the replacement by Russian engineers of the Englishmen employed in building the northern Chinese railroads, M. Pavloff, in reply to a British remonstrance, stated that the Russian Government intended that the provinces of China bordering on the Russian frontier must not come under the influence of any nation except Russia. On Jan. 19 Count Muravieff said that if it were true that the opening of Talienwan as a treaty port was to be one of the conditions of the British loan he could not regard it as a friendly action. In consequence of the vigorous stand taken by Russia the claim that Talienwan should become a treaty port was waived on condition that Port Arthur, if retained by Russia, should be opened on the same conditions as Kiauchau, and finally, on Jan. 21, the demand was withdrawn on the understanding that it might be made a treaty port if the railroad was constructed down to the peninsula. Count Muravieff telegraphed an assurance on Jan. 27 that any port which Russia might obtain for the outlet of her trade in those regions would be an open port. Lord Salisbury, mistaking the character and the language of the communication, said in Parliament that he had the written assurance that Talienwan, when it came into Russian possession, would become a free port, which was better than a treaty port. M. de Staal, the Russian ambassador, wrote to correct him, stating that the assurance was verbal and that the Russian Government, in the event of its acquiring an outlet into Chinese waters, would be free to decide whether to establish a free port there or to assimilate the port in question to the treaty ports of the Chinese littoral.

The Chinese Government, anxious to preserve Manchuria, requested Great Britain to enter into friendly negotiations with a view of protecting China against foreign pressure. This was regarded by British statesmen as tantamount to a request that the British Government should guarantee the territory of China, which that Government was not prepared to undertake. On March 8, after the conclusion of the Anglo-German loan, Russia made a peremptory demand for the cession of Port Arthur and Talienwan on the same terms the Germans received in respect of Kiauchau, one of the reasons advanced being to assist in protecting Manchuria against the aggression of other powers. The Chinese ambassador at Berlin, Hsu-Ching-Cheng, was ordered to St. Petersburg to endeavor to obtain a withdrawal of the demand. The Russian Government allowed an extension of the time given for the answer until he could be heard. The Tsung-li-Yamen still looked to England for help, but received only an assurance that the British Government had no designs on Manchuria or on any part of China unless driven thereto by the aggression of other powers. On March 13 the British ambassador at St. Petersburg asked for an assurance that Port Arthur, equally with Talienwan, would be open to foreign commerce. Count Muravieff replied that the Czar had decided to regard Port Arthur as a strictly military port. The Russian minister explained that his Government did not in any way desire to abrogate the sovereignty of China over the ports, but only required a lease, considering that China owed this to Russia for the services rendered in the war with Japan. Later the Czar authorized his minister to give an assurance that the Russian Government had no intention

of infringing the rights and privileges guaranteed by existing treaties between China and foreign countries, and that both Port Arthur and Talienwan would be opened to foreign commerce. Lord Salisbury on March 22 expressed grave objections to the lease of Port Arthur, describing it as useless for commercial purposes, its whole importance being derived from its military strength and strategic position, the occupation of which would be considered in the East as a standing menace to Peking and a commencement of the partition of China. On March 24 M. de Staal explained to Mr. Balfour that Talienwan was the outlet to Russian commerce, but that it must be protected: therefore Port Arthur, which entirely dominated it, could not be left in the hands of another power. When Sir Nicholas O'Connor suggested that an understanding with England would secure the safety of the Russian fleet at Talienwan without Port Arthur, Count Muravieff complained that England alone of all the powers stood in the way of Russia and resented in any degree her proposed action. Why should not Russia, when every other great maritime power possessed a naval station in the China seas, have a safe harbor for her fleet that would not be at the mercy of the elements at Vladivostok or dependent upon the good will of the Japanese. On March 28 Mr. Balfour in a long dispatch embodied the British views on the Russian concessions, which were that a railroad under Russian management connecting ports on the Pacific with the Russian commercial and military system would revolutionize the political and economic state of Manchuria, but would not be regarded with dissatisfaction so long as the natural flow of trade was not obstructed nor diverted by fiscal or administrative regulations; that the occupation of Port Arthur, however, a naval base of great natural and artificial strength, dominating the Gulf of Pechili and menacing Peking, was likely to have political consequences of great international importance, and that it was unfortunate that it had been thought necessary by a great military power which is continuous for 4,000 miles with the land frontier of China, and never likely therefore to be without a due share of influence on the councils of that country, to obtain in addition control of a port which, if the rest of the Gulf of Pechili remained in hands as helpless as those of the sovereign power, commanded the maritime approaches to its capital. The British Government, its proposal to abstain from occupying a port in the Gulf of Pechili so long as other powers did the same having been rejected, retained entire liberty of action to take what steps it thought best to protect its interests and diminish the evil consequences that it anticipated. Abandoning the policy of the open door to which it was committed, the preponderant interest and priority of claim in China asserted by Mr. Curzon, the principle just declared by the House of Commons that it is of vital importance for British commerce and influence that the independence of Chinese territory shall be maintained, the British Government ended by claiming as its share the port of Wei-Hai-Wei.

The arrangement for the lease of Port Arthur and Talienwan, with the right to connect them with Petuna, on the Trans-Manchurian Railroad, by way of Mukden, was signed on March 27. Great Britain made a great naval demonstration in the Gulf of Pechili, which did not deter the Tsung-li-Yamen from acceding to the Russian demands. The imperial ratification had previously been given, and the Russians immediately took possession of Port Arthur. The Emperor received the Russian *chargé d'affaires*, who as a novel mark of distinction was allowed to ascend the throne, and in his speech in answer to the Czar's message he spoke of

a treaty of alliance, lately concluded, that strengthened the cordial friendship existing since two centuries between the two states. The Russo-Chinese agreement, which was signed by M. Pavloff and by Li-Hung-Chang and Chang-Yin-Huan, provides that Port Arthur and a part of Talienwan shall be reserved as naval ports for the sole use of Russian and Chinese men-of-war. It left the delimitation and the railroad route to be settled with the Chinese envoy in St. Petersburg, Hsu-Ching-Cheng, who was Chinese director of the Eastern China or Trans-Manchurian Railroad. North of the leased territory a neutral zone was to be measured off, within which China should exercise jurisdiction, but not quarter troops without the consent of Russia. Within the Russian jurisdiction the Chinese inhabitants had the option of remaining, and any Chinese charged with a criminal offense must be handed over to the nearest Chinese official. The term of the lease was originally intended to be ninety-nine years, but was altered to conform to the German precedent. In the Russian lease it is provided that it may be extended further by common accord. The Russians reserved to themselves the right of collecting the customs duties at Talienwan, agreeing as a temporary arrangement to pay all moneys collected in excess of the cost of collection over to the Chinese Government, so that the imperial customs revenue shall not suffer loss when Talienwan supplants Niuchwang as the chief port of Manchuria.

On April 1 Count Muravieff, in answer to a request that his assurances should be recapitulated in writing, explained that the ideas confidentially expressed previous to the conclusion of the arrangements with China were not assurances. Now that concrete assurances could be given, he affirmed that Russia intended to maintain the rights of sovereignty of China and to respect existing treaties. The substitution of the usufruct of Russia for the possession of China had not impaired the interests of the other powers; on the contrary, by agreement with China, Talienwan would be made a treaty port. As regards all other points, the *status quo* would be scrupulously maintained, and Port Arthur would be open to English ships on the same conditions as it has always been, but Russia would not abuse the lease by transforming a closed and principally military port into a commercial port like any other. In April the leased territory at Talienwan was extended so as to include Kinchau Bay. Fortifications were added speedily to the works at Port Arthur, the strong forts built by German engineers. At Talienwan, the southern part of the port was laid out as a military harbor and closed to merchant vessels. The area taken under Russian administration embraces 800 square miles, including Kinchau and all the harbors between Port Arthur and Talienwan. The effective occupation of the leased territory was begun on March 28 by Rear-Admiral Dubasoff. The Russian garrison at the end of June was 5,000, and before the close of 1898 it was arranged to bring it up to 20,000 men, in addition to the 50,000 picked soldiers who will act as guards for the protection of the railroads. Japan was reconciled to the Russian occupation of Leao-tong when the Russian financial advisers and military instructors were withdrawn from Korea, where a political agitation against the Russians had hindered their work and the Korean Government had said that it could do without foreign assistance. The Russian Government gave warning that if the Koreans could not maintain order and preserve their independence it would take measures for the protection of the interests and rights of Russia. Subsequently Russia and Japan entered into an engagement to join in preventing

any foreign intrusion in Korea and not to impede the commerce and industry of each other's subjects in that country.

Lease of Wei-Hai-Wei to England.—In the early part of the year the British Government announced a policy of firm opposition to territorial occupation that would lead to the dismemberment of the Chinese Empire, and declared that it would defend, even at the cost of war, Sir Michael Hicks-Beach, the Chancellor of the Exchequer, said, the "open door" by which freedom of access for the commerce of Great Britain and other nations should be preserved in China under the Treaty of Tientsin. When Germany imposed on China the condition that German engineers should have the preference in building railroads and working mines in Shantung, Lord Salisbury demanded equality of treatment for British subjects under the treaties. On Feb. 25 Sir Claude MacDonald telegraphed that the Chinese Government was ready to lease Wei-Hai-Wei to Great Britain. Lord Salisbury answered that the policy pursued by the British Government at that time aimed at discouraging any alienation of Chinese territory, and that it was premature to discuss such a lease unless the existing position should be materially altered by the action of other powers. On March 25, after offering a pledge to Russia not to occupy any port in the Gulf of Pechili so long as other powers pursued the same policy, and after Russia, in defiance of its grave objections, persisted in demanding Port Arthur, as well as Talienwan, the British Government made a formal demand for the lease of the military harbor of Wei-Hai-Wei upon its evacuation by the Japanese. In order not to disturb the good relations with Germany, the spontaneous assurance was given that the interests of Germany in the Shantung peninsula would not be interfered with. On April 1 the Japanese Government expressed concurrence in the lease of Wei-Hai-Wei to Great Britain after evacuation. On April 2 the Tsung-li-Yamen consented to lease Wei-Hai-Wei to Great Britain on the terms on which Port Arthur was leased to Russia, the lease to continue until Russia should cease to occupy the Leaotong peninsula. The evacuation by the Japanese army of occupation was completed on May 23. The place was taken over by the Chinese, who on May 24 delivered the arsenal and fortress to the British. The territory leased comprises Liukung and the other islands of the bay and a belt of land, 10 miles broad, along its entire coast line. In addition, Great Britain has the right to erect fortifications, station troops, or take other measures necessary for defensive purposes at any points on or near the coast east of 120° 40' east of Greenwich, within which zone Chinese administration shall not be interfered with; also within the walled city of Wei-Hai-Wei Chinese jurisdiction continues unless it shall be superseded for military reasons. Chinese war vessels retain the right to use the leased waters.

Concessions to France.—In compensation for the advantages secured by Russia and other powers France presented the following demands, which the Chinese Government on April 13 conceded: The lease of a bay on the southern coast of China; the concession of a railroad connecting Tonquin with Yunnan-Fu by the Red river; an agreement by China not to alienate the territories of the Chinese provinces bordering on Tonquin; an engagement not to cede the island of Hainan to any other power; an arrangement for placing the Chinese postal service under the direction of a Frenchman. The bay chosen by France for a naval station was that of Kwangchau, in the Leichau peninsula. Great Britain opposed no obstacle to the railroad concession, assuming the right to continue the

Burmese Railroad when it reaches the frontier, into Yunnan by virtue of the declaration signed by M. Courcel and Lord Salisbury on Jan. 15, 1896, whereby all privileges or advantages obtained by either France or Great Britain in Yunnan or Szuchuan shall be extended and rendered common to both powers. China had already promised France by the convention of June 12, 1897, never to give up Hainan to any other power. The Bay of Kwangchau-Wan was occupied by Admiral de la Bedollière on April 22. The lease was of the same kind as that of Kiauchau to Germany. The concession for a railroad from Lao-Kai to the city of Yunnan was on the same general terms as the one for the Trans-Manchurian Railroad, with accompanying exclusive mining privileges throughout the area traversed. The provinces which China promised never to alienate, offering to enter into the same engagement with England in regard to them, are Kwangtung, Kwangsi, and Yunnan.

Concessions to Japan.—The integrity of the whole of China proper was assured, so far as the present Pekin Government can do so by promises, when Japan in April demanded and obtained the non-alienation of the province of Fokien, opposite Formosa, fearing that the French might secure a foothold there. Asserting the rights which she secured by the protocol of October, 1896, Japan notified China that she required settlements to be established for the exclusive use of the Japanese at Fuchau, Wusung, Shasi, Fanning, Yochau, and Ching-Wan-Tao, but agreed to the postponement of her claims in Fuchau, and also assented to the contention of China that in ports voluntarily opened, such as Wusung, there should be a common settlement for foreigners, which shall remain under Chinese control.

Extension of Hong-Kong.—To balance the French occupation of Kwangchau-Wan as a coaling station, Great Britain demanded and obtained the extension of British territory at Kaulung, opposite Hong-Kong, which military experts had been urging for a long time as necessary to the safety of the British arsenal and military harbor from the land side. An extension was needed also for the industrial expansion of the colony. The Tsung-li-Yamen acceded to the British demand on May 2, and the convention was signed on June 9. The boundaries of the colony were enlarged so as to include a part of Kaulung on the mainland by the Pekin convention of 1860. The territory now added by a lease running for ninety-nine years from July 1, 1898, embraces about 200 square miles, reaching back from Kaulung 15 miles, up to a line joining Mirs Bay and Deep Bay, leaving the north shore of both bays to China. It includes the whole promontory of Kaulung and a considerable part of the peninsula from which it projects. The island of Lantao and all the islands and waters of the two bays are embraced in the lease, China reserving the right to use them for her own ships, whether belligerent or neutral. The native city of Kaulung remains under Chinese jurisdiction. To prevent Chinese revenue from suffering from the change, it was stipulated that a Chinese commissioner of customs should be empowered to collect duties in Hong-Kong on all goods carried on Chinese junks from or to Chinese ports, as also in the German territory of Kiauchau the Chinese have been allowed to erect a customhouse.

The Manchurian Railroad.—In Manchurias where the Eastern China Railroad was being built as a short cut of the Siberian line to Vladivostok, the Russians already had and exercised all the rights and privileges they could desire. They had the right to mine, the right to build houses and import all kinds of machinery for railroad and min-

ing purposes, the right to navigate all the inland waters, and the right to protect themselves by force, independently of the Chinese. It was on Sept. 8, 1896, that the Chinese Government entered into an agreement with the Russo-Chinese Bank, an institution that is controlled by the Russian Ministry of Finance and backed by the financial resources of the Russian Government for the creation of the Eastern China Railroad Company, practically an agent of the Russian Trans-Siberian Railroad organization. This branch company undertook to connect the Siberian Railroad from a point near Nertchinsk, in the Trans-Baikal, with the terminal section near Vladivostok by a line carried across Manchuria. The route as surveyed is 946 miles, running through Hailar, Petuna, Kirin, and Ninguta. The railroad is to be completed before Aug. 28, 1903, and at the end of eighty years is to become the property of the Chinese Government. It is being built with Russian capital by Russian engineers out of Russian material and is guarded by Russian soldiers, who are already recognized as the masters of northern Manchuria.

By a secret treaty known as the Cassini convention Russia obtained in 1896 the right to carry a branch down through the Leaotung peninsula to a port on the Gulf of Pechili. This right was openly claimed in the agreement of March 21, 1898, for the lease of Talienwan and Port Arthur, which stipulated for a branch line of the Eastern China Railroad to Talienwan, or, if necessary, a branch line to the most suitable point on the coast between Niuchwang and the Yalu river. This stipulation enables Russia to connect the Siberian system with the projected Korean railroad terminating at Wiju, for which a French company has obtained a concession, as well as with the north China extension from Shan-Hai-Kwan.

The route of the railroad down to Talienwan was planned so as to leave Niuchwang, an important *entrepôt* for American cottons and petroleum as well as for English goods, a few miles on one side. A branch was run down to the port to carry the railroad materials.

The Struggle for Concessions.—Although the guaranteed loan had fallen through, Great Britain still pressed for the concessions demanded in the interest of trade. In the end the Chinese Government consented to the following arrangements: The internal water ways of China would be opened to British and other steamers in the course of June, 1898, so that wherever the use of native boats was permitted by treaty foreigners should be allowed to employ steamers or steam launches, whether owned by them or by Chinese; the post of Inspector-General of Maritime Customs shall in the future, as in the past, be held by a British subject so long as British trade with China at the ports continues to exceed that of any other power; a port will be opened in Hunan within two years. Before negotiations were concluded China agreed to open three new treaty ports—Chingwing-Peitalho, situated on the Gulf of Pechili close to the place where the Great Wall of China abuts on the sea; Funing, on the Sam-Sa inlet of the southeast coast; and Yochau, situated on the Tungting lake, in the province of Hunan. China of her own accord declared Wusung a treaty port, dismantling the forts there. The voluntary opening of new ports was intended to induce England to acquiesce in a revision of the tariff in accordance with the Treaty of Tientsin. Sir Robert Hart, on account of the fall in exchange, which was the ground for asking an increase of the general tariff, obtained an increase in the salaries of the customhouse officers, which were doubled for the foreigners and increased 50 per cent. for Chinese employees.

The placing of the administration of the *likin* taxes pledged for the Anglo-German loan under the administration of the maritime customs was regarded as the opening wedge for a great reform by the British commercial community. A commutation of *likin* by payment at the port of entry of a 2½-per-cent. *ad valorem* tax, in addition to the regular import duty of 5 per cent., was introduced in the last commercial treaty concluded with England. The importer obtained thereby a certificate of exemption, but the Chinese provincial authorities effectually circumvented it by reviving the obsolete terminal tax called *loti shui* and imposing various duties on the native purchasers. They laid down the doctrine that the immunity attached only to the foreign importer, not to the goods after they had left his hands. Consequently, in southern China at least, the treaty provision proved a dead letter. Baron von Heyking, the German minister, obtained a general concession with regard to *likin* which enables the merchant who has paid the commutation duty of 2½ per cent. in lieu of *likin* and cleared goods for a fixed destination to sell them at intermediate points without paying the local *likin*. The regulation and collection of the *likin* duties by the Maritime Customs Department, presided over by Sir Robert Hart, is an object for which the British representative has striven for several years. The *likin* is a 10-per-cent. tax upon all goods in transit, which may become a 20-per-cent. tax, or even more, if they go through more than one province, and may be lessened by bribing the collectors. It is usually levied 2 or 3 per cent. at a time at successive barriers in each province. It is supposed that a third of the money collected is pocketed by the local mandarins and another third consumed in the cost of collection, while the imperial treasury gets the rest. The revenue from the salt monopoly, which is likewise diminished by speculations, is derived from the profit on the sale of the salt by the Government to licensed dealers and a tax on their sales to the consumers.

Considerable correspondence took place over the British demand for a declaration of the non-alienation of the Yangtse region, but the English minister could obtain no more definite assurance than the statement that "it has to observe that the Yangtse region is of the highest importance as concerning the whole position of China, and it is out of the question that territory in it should be mortgaged, leased, or ceded to another power." This was described as a binding engagement by the responsible ministers in England, who claimed this central part of China, the largest, wealthiest, most populous, and richest in undeveloped resources, as the British "sphere of interest," as contradistinguished from the "spheres of influence" which Russia, Germany, and France sought to set up elsewhere. International lawyers held the Chinese declaration to be nothing but an expression of opinion, carrying no obligation with it. The Chinese Government early in the year had dismissed many of the German military instructors, and had appointed Col. Woronoff, a Russian, its chief military adviser. When the English took possession of Wei-Hai-Wei permission was asked to place Chinese naval cadets under their tuition, as was already done at Port Arthur. Sir Claude MacDonald broached a scheme for the complete reorganization of the military forces and the building up of a powerful Chinese army and navy under British officers, stipulating as a condition precedent that these should have full power and control. This proposition was not considered at all. When M. Pavloff asked later that on new Chinese ships Russian instructors be employed exclusively and that all future army and navy instructors should be Russian the Chinese demurred. The Chinese wanted

to send their new cruisers to Port Arthur, but were told that only Chinese ships whose foreign officers were exclusively Russian would be admitted.

The regulations for the steam navigation of Chinese inland waters when first promulgated by imperial decree were disappointing. They restricted the privilege to the waters of provinces containing treaty ports and forbade towing. After further negotiations these limitations were swept away and the right of using steamers was permitted to foreigners on all the rivers, lakes, and canals, and even in the coast waters.

The competition for railroad enterprises in the middle of the year caused greater friction than the loan negotiations or the occupation of Port Arthur and led the British to prepare their fleet once more for war. The Russians, all-powerful at Peking, not only blocked their scheme of invading the Russian sphere by extending the line built under British auspices from Tientsin to Shan-Hai-Kwan to the Manchurian port of Niuchwang, but obtained control of the concessions for the projected trunk lines penetrating to the center of the Yangtse region that was supposed to be reserved for British enterprise and aiming to join hands with the French, who were pushing their railroad enterprises up from the south. The English mercantile community called upon their Government to provide capital for Chinese railroads, as the Russian Government was doing, lest their commercial supremacy vanish like the British political predominance. Mr. Chamberlain, applying to Russian diplomatic methods the proverb that to sup with the devil one wants a long spoon, suggested an alliance with Germany, saying that without a powerful military ally England could never seriously injure Russia.

Ten years have elapsed since Li-Hung-Chang and Chang-Chi-Tung undertook in rivalry to provide China with railroad communications. Li-Hung-Chang was for extending the line he had lately begun from Tientsin toward Peking in one direction and Manchuria in the other. Chang-Chi-Tung disapproved of railroads near the coast, which might be used by an enemy, and of employing foreign capital, engineers, or materials, for fear of political encroachments. He was authorized to build his trunk line from Peking to Hankau in his own way, but used up the capital he raised and the 2,000,000 taels a year given by the Government in opening the necessary coal and iron mines without being able to build a mile of the great Lu-Han Railroad, so called from the initial syllables of the two terminal towns. Sheng, as Director-General of Railroads, took up the project, but accomplished no more. Li-Hung-Chang's projected line from Tientsin to Peking was completed by Hu, the Governor of Peking, after Sheng had failed to obtain the capital from the various syndicates—American, Belgian, and English—with which he treated. A projected line from Shanghai to Suchau and Nankin collapsed with the Hooley loan. Chang-Chi-Tung built the short line from Shanghai to Wusung. The extension of the Peking-Tientsin line to Shan-Hai-Kwan was accomplished under the direction of the English engineer Kinder. Under Russian auspices a line running southward from Peking has reached Pao-Ting-Fu and is being extended to Ching-Ting. These are the only existing railroads in China. A Belgian syndicate in 1896 obtained a concession for the construction of the famous Lu-Han line, of which this was the beginning. The Russo-Chinese Bank in the early part of 1898 offered financial assistance to carry out this work, and obtained concessions to build branches from Ching-Ting, through the great mining region of Shansi, to Tai-Yuen-Fu and onward to Si-Ngan-Fu, in Shensi, whence Russians obtain their caravan teas.

In the Shantung peninsula Germany asserted the principle not of a monopoly of railroad construction, but of a preferential right to make tenders for any contemplated line. When a British syndicate undertook the construction of a great trunk line from Tientsin to Chinkiang the German Government objected because the route lay through the western part of Shantung, and a German syndicate was formed to make an offer to build the line, which runs parallel to the Grand Canal. A British syndicate obtained the right to connect Shanghai with Ningpo on the one side and Chinkiang and Nankin on the other by railroads traversing the rich silk and cotton districts of the lower Yangtse. This was the only British railroad concession that was not blocked by the interference of other powers exerted in ways that the English considered to be in violation of the Tientsin treaty, with the exception of the right to extend the Burmese Railroad when it reaches the frontier into the province of Yunnan. In the south of China the French acquired certain rights of railroad construction into Yunnan under the convention of June 20, 1895, and in 1896 China granted the privilege of continuing the Tonquin line from Haifong from the frontier at Sangchau to Nanning-Fu, on the West river. They plan to carry it through into the upper Yangtse valley at some future time. In 1898 they obtained a concession for another line to Nanning-Fu from the treaty port of Pakhoi, on the Gulf of Tonquin.

The principal industrial concession obtained in the British interest, the largest ever granted in China, was sanctioned in favor of an Anglo-Italian syndicate, which was authorized to work the coal and iron mines, petroleum, and other minerals in Shansi. On June 21 the same syndicate obtained a monopoly for sixty years of the coal and iron mines of Honan south of the Yellow river, with permission to connect them by railroad with the nearest trunk line. A Chinese company, financed by the Russo-Chinese Bank, arranged to run a line into the most valuable mining district of Shansi, about Tai-Yuen, and to get mining privileges of its own, which threatened to render useless the Anglo-Italian concession. The Russian gauge has been adopted on the roads mortgaged to the Russo-Chinese Bank, and the bank determines questions of route, etc., and also engages the foreign workmen to be employed until Chinese are available. The Russian representative secured from the Tsungli-Yamen an agreement that any dispute between the Peking-Hankau Railroad Company and the local authorities shall be arbitrated by the minister of the Government whose people have the greatest financial interest in the railroad.

To carry the existing railroad from Shan-Hai-Kwan to Niuchwang with a view of extending it onward in the direction of Mukden the Hong-Kong and Shanghai Bank, a British institution, offered to provide the money on the security of the line already completed. M. Pavloff protested energetically against the intrusion of foreign enterprise in the Russian sphere. The Chinese Government at first resisted the claim to restrict their use of foreign capital, which was admitted in a convention signed in St. Petersburg on May 7, 1898, but the Russian *chargé d'affaires* insisted on the terms of the Cassini convention. When he resorted to menaces Sir Claude MacDonald, who had already been instructed to press for the insertion in every concession granted by the Chinese Government of proper provisions for the equal treatment of all nationals and trade, was further instructed on July 22 to inform the Yamen that the British Government would support the Chinese Government against any power which committed an act of ag-

gression upon China because China had granted to a British subject permission to make or support any railroad or similar public work. M. Pavloff finally laid down the conditions of accepting the British loan, viz., that the line should not be mortgaged and no foreign control should be allowed even in the event of default in the repayments, which conditions the Chinese Government finally accepted. At the same time he informed the Chinese that, if the Hong-Kong and Shanghai Bank was unable to raise the capital on these conditions, the Russo-Chinese Bank would provide it. Sir Claude MacDonald declared to the Yamen that England would not tolerate any interference of other powers with the British loan contract for the construction of a railroad connecting two treaty ports in which British commercial interests are predominant. Hu-Yu Fen, the new Director of Railroads, who was appointed at the instance of Russia, nevertheless abrogated the preliminary contract with the Hong-Kong and Shanghai Bank, yielding to Russian pressure, and Great Britain agreed to the Russian conditions. The British resisted the conclusion of the contract with the Belgian syndicate for the Pekin-Hankau Railroad and began to mobilize their fleet to intimidate the Chinese Government. This had no effect on the Tsung-li-Yamen, which sanctioned the contract in August. In compensation a concession was granted to a British syndicate for a short line from British Kaulung to Canton. Furthermore, the Pekin or Anglo-Italian syndicate obtained the right to carry their mining railroad beyond the borders of Honan to Sing-Yang, in Hupei, on the river Han.

Insurrectionary Movements.—The agitation caused by the encroachments of foreign powers on the territory of China and the authority of the Government brought to the surface the revolutionary undercurrents which manifest themselves only in periods of storm and danger. An attack on the American Methodist Medical Mission at Chungking in March was only one of the usual anti-foreign disturbances. In July both the Protestant and the Catholic missions there were attacked, and missionaries were assailed in adjacent cities. In September the American and French missions at Hochau were destroyed. A serious riot in May at the treaty port of Shasi, on the upper Yangtse, where consulates, foreign warehouses, and the customhouse were destroyed, was probably instigated by mandarins, who will lose their perquisites by the transfer of the *likin* collectorate to the maritime customs. More ominous was the phenomenon of secret societies growing more numerous and active in all the provinces, especially in the south, where antidynastic sentiments are always rife. The mysterious Triad, which gave the first impetus to the Taiping rebellion, and the White Lily confraternity began to stir as they do in troublous times, and alongside of these accustomed agencies of unrest new political societies, imbued with new ideas, assailed the authority of the supine and impotent Manchu dynasty and the corrupt and incapable official oligarchy. Such were the National Preservers, who advocated Western learning and the adoption of foreign methods, the Young China Society, created by graduates of Yale and Harvard, and the Progressive Society, led by men who have lived in the United States, who dream of transforming the Celestial Kingdom into a republic. The revolutionaries of both types worked harmoniously together and looked for some support from Great Britain, whose side they favored in her struggle against the Russo-French alliance, as conducting best to the preservation of Chinese independence. The Black Flags of the Kwang provinces were used to fighting the French in defense of Chinese institu-

tions, while the advanced thinkers, who derived their ideas from America and Shanghai, sympathized with English aims and methods in China. When the French took possession of their new naval base at Kwangchau-Wan they met with hostile demonstrations. Tan, the Viceroy of Liang-Kwang, resigned his office as a protest against the surrender of this place to the French. In Shanghai the French provoked serious riots by attempting to expropriate by force the ancient burying ground of the Ningpo guild in their settlement. In Kiangsi anti-foreign riots broke out at Chang-Shu, where a mob destroyed the premises of the China Inland Mission. In Hainan American missionaries were attacked. Sun-Yat-Sen, a revolutionist of the new school, started an insurrection in Kwangtung. On June 28 a rebellion was started in Kwangsi. A lawless character named Li-Lap-Yan set himself up as the Chinese deliverer who would free the country from the Manchu dynasty, which had long misgoverned the people and was now reduced to a state of collapse. The provincial authorities, who feared complications with France, hastily collected an army of more than 5,000 men, but before it could take the field the rebels captured Yung-Hsien, Peiliu, Luchuan, and half a dozen other towns. They marched on Moning and Tienpak, and advanced into Kwangtung, threatening Wuchau. Among the rebels were many Black Flags and some trained Annamite soldiers, who had deserted from the French army. Six gunboats were dispatched from Canton to Pakhoi, carrying nearly 8,000 Manchu troops. When these reached the disturbed district they proceeded with barbarous severity against the insurgents, slaughtering them by hundreds and casting their bodies into the West river. The first troops to reach the field were the local militia, who met with a severe reverse near Wuchau, losing 1,500 men. The rebels numbered nearly 40,000 by the middle of July, but they were not able to hold their ground against 7,400 Chinese troops. These recaptured Yung-Hsien, killing 1,000 rebels, and Peiliu. The rebels fell back from the river district, but made a stand in the Hsi-Shan hills, where, with the aid of some field pieces, they repelled the imperial forces from an entrenched position. In the southern part of the province the soldiers were unable to get at them, but the disturbed district near Wuchau was cleared of rebels by a ruthless slaughter of guilty and innocent alike. The rebellion broke out afresh at Yulin and other places where the troops were not in force, and Wang, the governor of the province, was scarcely able to report truthfully that he had subdued the rising within three months, the term given to him by the Pekin Government.

Internal Affairs.—The progress of education in China has been so great that even among the Conservatives are many who would supplant the study of Chinese classics and literary style with science and the useful arts. Newspapers are being established in the most backward cities, and their writers discuss political conditions and theories of government with perfect freedom. The friends of progress attained a remarkable influence even in the Central Government. A curious decree of the Emperor ascribed the neglected and decayed condition of the national defenses to the extravagance and corruption of the mandarins, who keep dummy names on the rolls of the army, and waste the proceeds of the many taxes that were unknown in the period of China's greatness, so that in spite of the large sums obtained from *likin*, opium duties, etc., the ordinary expenses can not be met. He appealed to the honesty and diligence of the high authorities in Pekin and the provinces to work a reformation in the administration so as to enable the country

to withstand powerful and crafty neighbors who seek advantages and combine to overpower China. An edict was issued by the Emperor changing the basis of the higher education of the Celestial Empire by ordering that the official decrees which constitute the indispensable qualification for office should be conferred in future upon an examination in modern subjects, including mathematics, political economy, and the practical sciences. A university for the diffusion of Western science was established at Peking, with Prof. Martin, an American, as president. Changes of officials in the summer indicated that the Emperor had adopted progressive views.

In June the office of Minister of Trade was created. A patent office was established, with a view to encouraging inventors. A central bureau for mining and railroad administration was formed and placed under the presidency of two Cabinet ministers. Frequent edicts decreed reforms and ordered expenses to be cut down. The operations of the post office were extended over the whole empire, putting an end to the clumsy system of Government couriers. The Tsung-li-Yamen was directed to afford facilities for the sons of members of the nobility to visit foreign countries and to promote international intercourse. Chang-Chi-Tung, an opponent of Li-Hung-Chang, who had freely criticised the Tsung-li-Yamen, was summoned to become a member of the Government in April. In September Li-Hung-Chang was dismissed from the Tsung-li-Yamen. Other edicts permitted Manchus to engage in trade, decreed reforms in the civil service, and introduced energetic measures of administrative, financial, and industrial reform. A radical reform was announced in an edict giving to the whole official class the right to memorialize the throne. The Emperor appealed to the people to co-operate with him in strengthening the resources of the empire. It was ordered later that monthly accounts of the Government receipts and expenditures should be rendered and published throughout the empire, so that every one could see the endeavors that the Emperor was making to promote their welfare. The Emperor explained his new policy in a proclamation declaring that in many respects Western civilization is superior to Chinese, and that he meant to adopt its good features, while discarding the bad. This series of startling edicts, issued in September, were the work of a Cantonese, Kang-Yu-Mei, a friend of England, who had gained the confidence of the Emperor. On Sept. 21 this reformer was suddenly banished from Peking, and the dowager Empress assumed charge of the Government, announcing that she would henceforth be present at all Cabinet meetings and audiences, see all memorials, and approve all edicts. On Sept. 22 an imperial edict formally restored the regency.

CHRISTIAN CONNECTION. The tables of statistics of the churches for 1898, published in the "Independent" newspaper, New York, for Jan. 5, 1899, gives this body 1,391 ministers, 1,424 churches, and 107,868 communicants; Christian Church, South, 102 ministers, 174 churches, and 16,500 communicants; total for the united body, 1,493 ministers, 1,598 churches, and 124,368 communicants. The American Christian Convention met in its quadrennial session at Newmarket, Ontario, Oct. 11. The retiring president, Rev. A. H. Morrill, D. D., presented a report giving a satisfactory exhibit of the condition of the Church and its enterprises during the past four years, and in connection therewith recommending some changes in the constitution. Committees were appointed to devise some plan of apportionment of financial burdens, and to report upon a plan of co-operation with independent churches and upon the feasibility of appointing an assistant missionary

secretary to promote the work in the home field. The Rev. O. W. Powers was chosen president of the Convention for the ensuing four years. The report on Christian Endeavor Societies represented those bodies as increasing "in numbers, enthusiasm, and spirit of sacrifice." There were now 449 societies, with 9,504 active and 2,592 associate members, and 69 junior societies with 2,077 members; and they returned collections of \$1,218 for missions and \$2,018 for other purposes; in addition to which the books of the missionary treasurer showed that \$4,040 had passed through the hands of the missionary secretary during the past four years. Many societies were also regularly contributing clothing, books, etc., and money for Franklinton school, North Carolina. Other contributions for conference, local and city mission work, for Armenian and other famine-relief work, and for the local churches not regularly reported should be credited to these societies. The societies of the New England Convention were supporting two missionaries in the field. The Convention urged all other societies to form groups for the support of missionaries in a similar way. It also called on them to make regular and systematic collections for foreign missions. The reports on foreign missions related to missions in Japan and included an account of a visit of the missionary superintendent to China. The work in Japan had been somewhat interrupted by illness of missionaries; the schools had not been as successful during the last as during the previous year. No progress had been made toward self-support. The Convention advised the establishment of a mission among the Armenians in Cyprus, to be under the direction of Mr. Alexanian, an Armenian. The secretary of the educational department reported concerning the condition of nine institutions, viz.: the Christian Biblical Institute, Stanfordville, N. Y.; Union Christian College, Merom, Ind.; Elon College, Suffolk, Va.; Palmer College, Le Grand, Iowa; Kansas Christian College, Lincoln, Kan.; Weaubleau Christian College, Weaubleau, Mo.; Franklinton Christian College, Franklinton, N. C.; the Christian Correspondence College, Eddytown, N. Y.; and Starkey Seminary, Eddytown, N. Y., controlled by Christians and more or less directly affiliated with the Convention; that they employed 59 professors and 11 teachers; had lands and buildings valued at \$192,300, and aggregate cash endowments of \$65,187, besides notes for \$28,026. Some of these institutions were working in the college grade and carrying on a preparatory department, and others were more exclusively limited to preparatory studies. A proposition to establish or acquire a second college in Indiana was under consideration. The urgent need of a fund for the aid of young men contemplating the work of the ministry was presented in the report. The subject had been brought before the Convention at two previous meetings, yet the department had no money at its disposal for such purposes. The treasurer of the Woman's Home-Mission Board represented that of the seventy conferences of the Connection only thirteen had reported, and that the total amount of contributions from the conferences and gifts to the society was \$916. The corresponding secretary of the board reported that she had ascertained, in answer to letters of inquiry, that a majority of the conferences in the Central States had conference home-mission boards. The boards in the Eastern conferences had been formed previous to the organization of the General Board, and its work was not yet so universally adopted by them as in the boards of more recent organization. These boards were adopting measures of co-operation and education, with varying degrees of success. A more rigid investigation

of the characters of ministers applying to be received from other denominations was advised. The Convention recommended that \$80,000 be raised during the ensuing four years and distributed as follows: 35 per cent. to home missions, 35 per cent. to foreign missions, 20 per cent. to education, and 10 per cent. to the American Christian Convention.

The Committee on Christian Union reported that it had met a committee of Congregationalists to consider the subject of Union at Craigville, Mass., in August, 1897, when a recommendation was adopted that a union of the two bodies be formed on a basis including "mutual recognition of the Christian standing of each other's churches and ministers, with no doctrinal test beyond the acceptance of the Bible as the only standard of faith and practice; one name for the highest representative body, such as the General Council of Christian Churches; present organizations, institutions, and churches not to be disturbed by this action; that it be advised that new enterprises or churches be established under such a name as 'Christian' or the equivalent thereof." As co-operative measures supplementing these terms, certain provisions were advised for securing complete fellowship of the two bodies, their ministers and members, without interference with their several existing denominational relations, and for avoiding collision in their work. The plan was approved by all the members of both committees except one Congregationalist. Majority and minority reports were presented to the Convention respecting these recommendations, and a report was finally adopted, in which the majority report was slightly amended, whatever might be construed as an argument for the "Craigville plan" being omitted, and the treatment being made slightly more historical. This paper recited that in agreement with the determination of the founders of the Convention to take a position in which nothing in name, creed, or organization should repel any true Christian, the people of the Connection had rejoiced in witnessing the advance of the spirit of union among Christians of different bodies, and had been ready to recognize and co-operate with it in any feasible way. The Convention had at several quadrennials appointed its standing committees (for correspondence and negotiation) on Christian Union, from which some good and substantial results had been achieved, such as union with the brethren of the South and with the Christian Union. Other correspondence had been had, from which no practical results had followed, but it had produced no alienations. It should, however, be plainly understood that as the Convention held as the basis of its organization no principles that were not essential to Christian character—none that could be dispensed with without compromising the principles of true discipleship—it could entertain no propositions for union which looked in the least to any yielding of those principles; that no union would be a Christian union which was based merely or unconditionally on a name. "So, as we bear a name that has nothing in it that can divide the body of Christ, any suggestion that we should surrender our name as a condition of union would be rejected at once. Desirable as union may be, that only is a Christian union which is a CHRISTIAN union, and Christian only in its spirit and conditions, free from all elements of selfism, personal or denominational; so union for the sake of union, aiming at the making of a larger and more powerful denomination, either by absorption or combination, is vitiating in its spirit and can not be really a Christian union. With such a union we would have nothing to do." The position taken by the Convention at Haverhill, four years previously—no compromise of essential principles, an attitude

the same toward all, and no disintegrations or combinations to be contemplated—was believed to be the true one. The question stood now as the committees at Craigville had left it. Nothing special was pending. The report closed with expressions of the convictions that, considering human weakness and the strength of sectarian prejudice, real Christian union must be of slow growth; that it can not be effected except upon mutual acquaintance, and that it will never come merely by negotiations. The report was adopted, with a reservation that the act should not commit the Convention to the acceptance of the "Craigville" resolution contained in it.

CHRISTIAN ENDEAVOR SOCIETIES. The seventeenth International Convention of the United Societies of Christian Endeavor was held at Nashville, Tenn., July 6 to 11. The secretary's report showed that there were in the United States 41,222 Christian Endeavor Societies proper, 4,647 in England, 3,456 in Canada, 2,284 in Australia, 535 in Scotland, 433 in India, 331 in Wales, 213 in Ireland, 139 in China, 110 in Africa, and others in other countries, the whole number including the United States being 54,191; and Russia being the only country that has none. The increase in South Africa, India, China, Germany, and throughout Great Britain had been large. The constitution for local Christian Endeavor Societies had been translated and printed in 87 languages. The total membership of all the societies was upward of 3,250,000. Besides these, there were nearly 14,000 Junior Societies, 1,000 of which were in foreign lands, more than 780 Intermediate Societies, 77 Mothers' Societies, 45 Senior or Graduate Societies, 17 societies in the army of the United States and in volunteers' camps, 119 societies in the United States navy and on board merchant ships, and societies in prisons, schools of reform, workhouses, almshouses, asylums, institutions for the blind and for the deaf, schools and colleges, among car drivers, policemen, traveling men, men in the life-saving services, men in lighthouses and in large factories, etc., to the number in all of nearly 200. In England, the Baptists stood first in representation in the societies; in Australia, the Wesleyan Methodists; in Canada, the Methodists; and in the United States, the Presbyterians, who were followed by the Congregationalists, Disciples of Christ, and Baptists, more than 30 denominations being represented. Nine thousand societies had contributed \$198,000 directly to the mission boards and \$225,000 for other denominational purposes. The Tenth Legion, a tithe-paying band, started only three months before the previous International Convention, had now an enrollment of 10,300 members. During the year past 196,550 members had joined their home churches from the Young People's societies, 27,686 from the junior societies, and 1,518 from the intermediate societies. The by-laws of the societies had been revised. The meetings of the Convention were devoted to the reading of papers and delivery of addresses on various subjects relating to Christian life and effort, and reunions of the delegates of all the several denominations represented in the meeting were held.

In view of criticisms of the American Christian Endeavor Societies, representing that their tendency is toward an attitude of rivalry to the Church, and toward operating as a check upon the growth of church membership, the officers of the General Society investigated the matter, as it concerned the two denominations in which the organization is strongest—the Presbyterian and Congregational. They found that immediately after the organization of the Christian Endeavor Societies a very marked increase took place in the average number of additions in both churches, and that the

rate of increase was growing. In the Presbyterian churches the additions from 1885, when the Christian Endeavor movement had become effective, to 1894 were 555,268, against 333,481 in the decade 1875 to 1884. In the Congregational churches the annual average of additions from 1875 to 1884 was 16,928; the average from 1884 to 1894 was 30,842. The officers did not presume to attribute the whole of this impulse to church growth to the influence of the Christian Endeavor Societies, but they maintained that it had been a factor in the matter, and considered it demonstrated that they are not an obstacle to church growth.

COLOMBIA, a republic in South America. The Congress consists of a Senate of 27 members, elected by the nine departments, and a House of Representatives containing 66 members, for whom the people vote direct. The President is elected by electoral colleges of the departments for six years. On the death of President Núñez, on Sept. 18, 1894, Vice-President Miguel Antonio Caro succeeded as acting President for the remainder of the term, ending Aug. 7, 1898. The Cabinet was composed in the beginning of 1898 of the following members: Minister of the Interior, A. Roldán, who by the choice of Congress acted as President during the temporary retirement of Vice-President Caro in 1897; Minister of Foreign Affairs, M. Tanco; Minister of Commerce and Communications, M. Esquerre; Minister of War, Gen. Molintá; Minister of Education, J. M. Carrasquilla; Minister of Finance, D. J. Reyes.

Area and Population.—The area of the republic is estimated at 513,938 square miles, and the population at 4,000,000, including 150,000 uncivilized Indians.

Finances.—The revenue for 1898 was estimated at 34,361,000 pesos, of which 19,500,000 pesos are derived from customs duties. The estimated total expenditure is 35,771,013 pesos.

The domestic debt on June 30, 1896, was 7,525,156 pesos, including 1,892,110 pesos of floating liabilities. The foreign debt, according to the settlement made with the creditors in January, 1897, consists of £2,700,000 of new bonds bearing 1½ per cent. interest for the first three years, 2 per cent. the next, then 2½ per cent. for three years, and afterward 3 per cent.

Commerce.—The export of coffee in 1895 amounted to 47,300,000 pounds. Other exports are earthnuts, gold, silver ore, cacao, cotton, dyestuffs, animals, tobacco, hides, rubber, and cabinet woods. About 60 per cent. of the imports pass through Barranquilla and 20 per cent. through Cartagena. The exports from Barranquilla in 1896 were valued at £1,790,260 sterling, of which sum £987,182 represented coffee, £452,201 gold dust and bars, £146,974 silver ore, £57,466 hides, £48,189 tobacco, and £24,742 rubber.

Communications.—There were 400 miles of railroads in operation in 1897, besides which 270 miles were building and 85 miles were under contract. The Panama Railroad carried in 1896 from Colon, on the Gulf, to Panama, in the Pacific, 92,137 tons of freight from Europe and 51,417 tons from New York, and from Panama to Colon 56,071 tons going to Europe and 33,701 tons for New York. The local traffic was 28,219 tons.

Election of a President.—The Congress assembled on July 20. The aged San Clemente was elected President of the republic for the ensuing term, but as his health would not permit him to undertake the duties of the office the Vice-President elect, José Manuel Marroquín, was inaugurated in his stead. A new Cabinet was formed as follows: Minister of the Interior, Aurelio Mutis; Minister of Foreign Affairs, Señor Paul; Minister

of Finance, Pedro Antonio Molina; Minister of War, Oligario Rivera; Minister of Education, Tomas Herran; Minister of the Treasury, Mejia Alvarez.

Dispute With Italy.—The Italian squadron of four vessels stationed in the Caribbean Sea was dispatched to Cartagena in July, and Admiral Candiani was instructed to make a formal demand upon the Colombian Government for the complete and speedy execution of the decision pronounced on March 2, 1897, by the President of the United States acting as arbitrator in the case of Ernesto Cerruti, an Italian subject, who claimed compensation for imprisonment and the confiscation of his property in 1885 on account of his alleged implication in the attempted revolution of 1884. President Cleveland awarded £60,000 to the claimant, including £10,000 that had been paid already. Of the balance £10,000 was to be paid within two months, and the remainder within nine months. The installments were duly paid, but English and Italian firms which had supplied E. Cerruti & Co. with goods before the forcible collapse of that firm claimed a lien upon the money. The award rendered it obligatory on the Colombian Government to guarantee and protect Signor Cerruti against all liability on account of the debts of his copartnership and to reimburse him for any that he might be legally compelled to pay. The Colombian authorities disputed the validity of this article of the award and refused to pay any money to release the indemnity from the embargo placed upon it by the Colombian and Italian courts. It was an integral part of the award, which would be illusory if the creditors could appropriate the indemnity. Nevertheless the Colombian Government, although it had submitted the case to arbitration unconditionally, contested this last article of the award as being outside of the scope of the reference. Admiral Candiani presented an ultimatum on July 24, demanding compliance with the Cleveland award within twenty days. To avert the forcible seizure of the customhouse and port of Cartagena the United States Government intervened, and by the use of its friendly offices induced the Italian Government to extend to eight months the time in which Colombia must satisfy all duly proved claims of the creditors of the Cerruti company. It required, however, that Colombia should announce her compliance with the Italian demand within the term of the ultimatum. The Colombian Government thereupon paid the balance of £60,000 to Cerruti and deposited 1,000,000 pesos to be employed in paying claims of the creditors when proved to the satisfaction of the President of the United States. The Italian Government insisted that the Italian or the Colombian courts of law should adjudicate the claims. The sum of £20,000 was paid to Admiral Candiani as a guarantee that Signor Cerruti should be released from all the claims of his business creditors within eight months.

The Panama Canal.—By an arrangement concluded with the Colombian Government by the liquidator of the Panama Canal Company on April 4, 1893, the concession for the construction of the canal was extended for ten years longer on condition that the new company then being organized should resume the work of construction before Nov. 1, 1894, and pay over to the Colombian treasury 17,000,000 francs in coin and stock. Work on the canal was taken up again and has since been continued, but the permanent organization of the new company was left to be decided after further study and experience. A decision was expected to be reached before the close of 1898. There were 3,500 laborers employed in the early part of the year, mainly on the work of reducing the Culebra hill.

COLORADO, a Western State, admitted to the Union Aug. 1, 1876; area, 103,925 square miles. The population in 1880 was 194,327; in 1890 it was 412,198. Capital, Denver.

Government.—The following were the State officers during the year: Governor, Alva Adams, Democrat; Lieutenant Governor, Jared L. Brush, Republican; Secretary of State, Charles H. S. Whipple, Democrat; Treasurer, George W. Kepbart, Republican; Auditor, John W. Lovell, Republican; Attorney-General, Byron L. Carr, Republican; Superintendent of Public Instruction, Grace E. Patton, Democrat; Adjutant General, Gen. Barnum; Regents of the University, David M. Richards, W. E. Anderson, Charles R. Dudley, Edwin J. Temple, Oscar J. Pfeiffer, and William J. Orange; State Engineer, John E. Field; Commissioner of Mines, Harry A. Lee; Register of Land Board, L. C. Paddock; Dairy Commissioner, H. B. Canon; Fish Commissioner, Joseph S. Swan; Coal-Mine Inspector, David Griffiths; Geologist, Thomas A. Rickard; Chief Justice of the Supreme Court, John Campbell, Republican; Associate Justices, Luther M. Goddard and William H. Gabbert, Democrats; President Judge of the Court of Appeals, Charles I. Thompson; Associate Justices, Julius B. Bissell and Adair Wilson.

Finances.—The estimated expenditures for the biennial period 1897-'98 amounted to \$1,260,872.70, and the estimated general revenue fund income to \$1,092,950. The total valuations of the counties, including railroad property, were \$206,598,561 in 1896. The bonded debt was \$770,500, and the floating indebtedness \$2,387,009.

Education.—The report of the Superintendent of Public Instruction, published in January, shows that the State has a school population of 130,862, of whom 100,882 are enrolled in the public schools. There are 3,120 teachers, 500 school districts, and 1,690 school buildings, of which 338 are of sod, adobe, or log, 1,006 of frame, and 346 of brick or stone. The State funds apportioned to the schools in 1897 amounted to \$89,664.67.

The State Normal School has 367 pupils.

A new building for young women was dedicated, Jan. 11, at the Colorado College, Colorado Springs.

An unusually large class was graduated in May at the State Agricultural College.

A "Texas-Colorado Chautauqua" was opened at Boulder, July 4. The grounds are 6,000 feet above sea level and just above the campus of the State University. An auditorium, with seats for 6,000 persons, has been built, and a large dining hall. Tents are provided for lodgings.

Charities and Corrections.—The average of prisoners in the Penitentiary is about 600, while about 100 are confined at the State Reformatory. The Industrial School for Girls has more than 50 inmates, and cost, for the year ending Nov. 30, 1897, \$7,483.75. A riot took place in this institution in March, on the occasion of the installation of a new superintendent. Doors and windows were smashed, stair rails thrown down, and general havoc made of the fixtures and furniture. Ten of the girls were lodged in the city jail.

The Soldiers' Home has about 100 inmates, and the cost of the maintenance is about \$30,000 annually.

Railroads.—It is an evidence of prosperous conditions in the State that the earnings of the Rio Grande for the first six months of the year showed an increase of 15.87 per cent. over those of the corresponding part of 1897, while these were about as much in advance of those of 1896.

A traffic arrangement was made in January between the Denver and Rio Grande, the Rio Grande Western, the Oregon Short Line, the Oregon Rail-

road and Navigation Company, and the Great Northern, designed to open up a channel heretofore closed between this part of the country and that touched by the Great Northern, and tending to bring a large share of through traffic over Colorado roads.

Mining.—Colorado took the lead among the States in the gold production in 1897, the output amounting, according to the report of the Director of the Mint, to \$19,104,200; the report of the State Bureau of Mines makes it \$19,579,636.83; but figures made up from smelter and mint statements raised the total to about \$23,000,000. More than half of the output is from the Cripple Creek district, which produces more than \$1,000,000 a month. Figures so far given for 1898 indicate a larger State output, estimated at \$24,000,000. The



CHARLES S. THOMAS, GOVERNOR OF COLORADO.

product of Cripple Creek runs from \$1,134,800 in January to \$1,302,047 in July. New mining camps are springing up in many parts of the State. That at Eldora, in Boulder County, is the opening up, practically, of the sulphide belt from Gilpin County. The town is only a few months old, but its population is 5,000, and it has several fine producing mines. In Clear Creek County many tunnels are being driven, which promise to increase production and lower cost. The Leadville district produces now almost as much gold as silver. Other promising localities are Hahn's Peak, Whisky Park, La Plata, and Unaweep. It was announced in December that a new town had sprung up five miles southwest of Cañon City, in consequence of the recent discovery of gold there. The new camp is named Dawson City, and more than 1,000 claims have been staked.

A cause of great increase in gold production in Colorado is the advance made in the treatment of low-grade ores, which formerly could not be treated because of a smelting charge of \$12 to \$14 a ton. By the improved methods of cyanide and chlorination these ores have been brought into successful and profitable treatment.

In silver, the amount in 1897 was \$12,692,448; the estimate for 1898 is \$14,250,000. The copper produced in 1897 was valued at \$960,917.13, and the lead at \$2,731,032.49. The estimates based on returns to December, 1898, show \$1,200,000 as the probable production of copper in that year, and \$3,000,000 as that of lead. The coal output in 1897 was valued at \$6,000,000, the iron at \$4,000,000, and petroleum \$1,500,000.

Extensive veins of anthracite coal have been discovered about 90 miles from Denver, on the proposed extension of the Colorado and Northwestern Railroad.

The official report shows that during the year 1897 there were employed in the metalliferous mines of the State 29,215 men. The general average wage was \$3 a day. Reports made by the miners' unions show a little better average. There has been a constant increase in the number of miners employed since 1897, but no decrease in wages.

Business.—The number of incorporations recorded in the office of the Secretary of State for the year ending Nov. 30, 1896, was 1,132, the capital stock amounting to \$385,061,840. The "United States Investor" said in October: "There has been a large increase in the deposits in Denver banks during the past six months, due to improved commercial and industrial conditions, among them being the growth of mining enterprises and the development of dividend-paying gold mines, which have been operated by individuals and private companies. Another reason for increased deposits has been the return of confidence since the outcome of the war was evident, and its effect upon financial enterprise was determined. The deposits in the largest three banks now aggregate about \$26,000,000, which is a very large sum for three Western banks. The very rapid strides making by the mining industries of Colorado are among the important sources of business of the State in general, while the advance of the cattle- and sheep-feeding business in that part of the State which can be reclaimed by irrigation has been a great source of income. The success in the growing of alfalfa on Colorado irrigated lands offers an unlimited field for the development of this industry."

A summary of real-estate transactions in Denver in 1897 shows that the total reduction of indebtedness was \$737,710, and the increase in consideration of warranty deeds over that of 1896 was \$237,810, in the number of releases 726, and the decrease in number of foreclosures was 278.

Agriculture.—The value of the farm products in 1897 are given in round numbers as follow: Wheat, \$3,800,000; alfalfa, \$4,300,000; clover and timothy, \$1,000,000; corn, oats, rye, barley, etc., \$6,500,000; potatoes, \$1,800,000; garden products, \$7,000,000; dairy and poultry, \$2,500,000; total, \$26,900,000; 1896, \$22,000,000.

The live-stock product was given as \$15,000,000 in value, and the wool as \$500,000.

The estimate of "Field and Farm" was much higher, the total of farm, dairy, and garden products amounting by its figures to \$77,800,000.

The following report of experiments with sugar beets in 1897 is given: "The State Agricultural College at Fort Collins sent out last spring over 600 samples of sugar-beet seed to farmers all over the State, who promised to take good care of the crop and report the results. During the fall a great many samples of beets were secured. Some were sent by the raisers, and some taken by representatives of the college, who visited the farms and made notes on the general conditions and management of the crops. The larger part of these samples were analyzed by the chemical department of the college, though some were sent to the chemist of the Department of Agriculture at Washington. The results of the season's work can be summarized in two sentences: First, good sugar beets will not grow in Colorado without care. Second, good sugar beets can be raised almost anywhere in Colorado by proper care. The average of the reported crops in Colorado will be over rather than under 16 tons of beets to the acre, with two farms that exceeded 30 tons. Twelve per cent. of sugar and 80 per cent. purity is the standard of quality in sugar beets. There has been scarcely a sample of ripe beets from the whole State that has gone below the standard. Nearly all that have fallen below

have been raised on clay soil. Many have gone far above the standard."

Early in 1898 the Denver Chamber of Commerce made an appropriation of \$1,000 for encouragement of experiments in the culture of sugar beets. A portion of the fund is to go to each county, under the condition that it shall appropriate at least an equal amount for the same purpose.

Irrigation.—There were at the beginning of the year nearly 16,000 miles of irrigating canals and ditches in the State, furnishing water for more than 3,500,000 acres, besides thousands of miles of small ditches built by individual farmers in the small valleys, of which no official record is made. There were several large projects for canals to be built this year, among which were mentioned the Grand River Valley Canal, heading above Grand Junction, which will bring 80,000 acres of remarkably fertile lands under cultivation. The Arkansas and the San Luis valleys also have each several new irrigation projects of scarcely less importance than that of the Grand. And Weld County has a proposition to tap the South Platte river at a point above La Salle, from which source a supply of water will be obtained sufficiently large to irrigate about 40,000 acres.

Land Grant.—The "Denver Times" said, May 11: "The confirmation of the Baca land grant in the San Luis valley, announced by the United States Supreme Court yesterday, is a matter of far-reaching importance to Colorado interests. The final quieting of title to this immense tract of 100,000 acres, which includes a goodly portion of the Sangre de Cristo range, will speedily open up to settlement a vast territory of immensely rich agricultural lands, and in addition a gold-mining district which experts have pronounced the richest in the State."

Colorado Springs.—A fire in that city, Oct. 1, threatened to destroy the entire business district. A strip four blocks by two was burned over, when the wind, which had been blowing at 45 miles an hour, died down and the flames were controlled with the help of engines from Denver and Pueblo. The losses were estimated at about \$1,000,000.

Anniversary of the Discovery of Gold.—There is a plan on foot to mark the spot where gold was first discovered in the State by a monument, and to celebrate the fortieth anniversary of that event, which occurred Jan. 7, 1859, according to documents in the possession of the State Historical Society. On that day George Jackson, an old California gold miner, who was camping on Chicago creek with no other company than that of two dogs, having built a big fire to thaw out the gravel, found in the ninth cup panned "one nugget of coarse gold." He wrote in his diary after the record of that discovery: "Feel good to-night; dogs don't." They had had a fight the day before with a carcajou that came into the camp. The spot where he found the nugget is within the present site of Idaho Springs.

Political.—The Republicans met in State convention, Sept. 15. The platform approved the national administration, reaffirmed belief in the policy of protection, and said further:

"We are unqualifiedly in favor of keeping forever in place the American flag wherever it has been unfurled to the breeze, whether as a result of conquest or peaceable acquirement.

"The Republican party is and always has been a bimetallic party. The Republican party of Colorado is earnestly devoted to the cause of bimetalism. It has no sympathy with monometallism, and believes that the final imposition of a single standard upon the people of this country would work irreparable injury. Its members believe that

the proper place for a Republican bimetalist is in the ranks of the party, and not out of it. In the future, as in the past, Republicans who represent Colorado at the national capital will be found working for the restoration of silver."

Following is the ticket: For Governor, Henry R. Wolcott; Lieutenant Governor, Charles E. Noble; Secretary of State, W. H. Brisbane; Treasurer, Frederick O. Root; Auditor, George S. Adams; Attorney-General, C. C. Goodale; Superintendent of Public Instruction, Mrs. Lucy E. R. Scott; Regents of the State University, Harry B. Gamble, Mrs. Jennie G. Caswell, L. C. Greenlee; Chairman of Central Committee, A. B. Seaman.

The Democrats, Populists, and one wing of the Silver Republicans united and named Charles S. Thomas for Governor. The platform reaffirmed the principles on which the parties are united, and said of expansion:

"We favor the independence of Cuba and the retention by this Government of the other Spanish West India possessions, and the control of all other Spanish territories taken by the American forces in the war just closed."

The Fusionists were successful in November, electing their State ticket and a majority of the Legislature. In the First Congressional District a Silver Republican was elected, and in the Second a Democrat.

The Democratic, Populist, and Silver Republican conventions were called to meet at Colorado Springs, Sept. 8, with a view to fusion on one ticket. But there were two factions of the Silver Republicans, one in favor of fusion, and one opposed to it, and on the morning of the 7th a fight took place between them for the possession of the opera house where the party convention was to meet. It was asserted that 150 shots were fired in the opera house; one man was killed, and three were wounded. One faction applied for a court order to compel the surrender of the opera house, but an arrangement was made by which neither was to have it, and the court so ordered. The corner's jury in the case of the man who was killed returned a verdict justifying the Teller or fusion faction, which was in possession of the opera house and was attacked by the antifusion or "straight" faction. This wing of the party met the next day and adopted a platform favoring free coinage of gold and silver at the ratio of 16 to 1; commending the Administration for the conduct of the war; favoring the retention of all territory taken, whether by peaceful means or by conquest; favoring the construction of the Nicaragua Canal; and denouncing the action of the other wing of the party. The following ticket was nominated: For Governor, Simon Guggenheim; Lieutenant Governor, Ira Bloomfield; Secretary of State, Joseph W. Millsom; Treasurer, Harry Mulnix; Auditor, John A. Wayne; Attorney-General, H. M. Hogg; Superintendent of Public Instruction, Miss Mayme Marble; Regents of the State University, E. J. Temple, J. W. Gunnell and Dr. J. H. Pershing.

The proposed fusion between the other wing of the Silver Republicans, the Democrats, and the Populists was effected, and an agreement was reached as to the division of offices. To the Populists were accorded the offices of Lieutenant Governor, Secretary of State, Attorney-General, and one regent, while the Silver Republicans received Treasurer, Auditor, Superintendent of Public Instruction, and one regent. The ticket follows: For Governor, Charles S. Thomas, Democrat; Lieutenant Governor, Francis Carney; Secretary of State, Elmer Beckwith; Treasurer, John F. Fenter; Auditor, George W. Temple; Attorney-General, E. C. Campbell; Superintendent of Instruction,

Helen L. Grenfell; Regents of the University, Harold Thompson, D. M. Richards.

The election returns showed a large majority for the fusion ticket. The two members of Congress were re-elected—in the First District, J. F. Shafroth, Silver Republican, and in the Second, J. C. Bell, Populist.

CONGO INDEPENDENT STATE, a sovereign, independent, monarchical state in Central Africa, created with the consent of the great powers, and declared to be perpetually neutral by the general act of the Congo, signed at Berlin on Feb. 26, 1885. Leopold II, King of the Belgians, who was declared to be its sovereign, by his will, dated Aug. 2, 1889, ceded his sovereign rights to Belgium, which by a convention made with the Independent State on July 8, 1890, and ratified by the Chambers on July 25, acquired the right to annex the territories after a period of ten years. The Government, under King Leopold, is presided over by a Secretary of State at Brussels, Baron Edmond van Eetvelde, who is assisted by Dr. A. de Cuvelier, Secretary of Foreign Affairs; H. Pochez, Treasurer; H. Droogmans, Secretary of Finance; and Charles Liebrecht, Secretary of the Interior, the Public Force, and Marine. Capt. E. Wangermée is Vice Governor General at Boma; he is assisted by Baron Dhanis as Inspector and M. Ghislain as Secretary.

Area and Population.—The area is estimated at 900,000 square miles, and the population at 30,000,000. There were 1,474 resident Europeans on Jan. 1, 1897, of whom 882 were Belgians, 125 British, 91 Portuguese, 87 Italians, 88 Swedes and Norwegians, 64 Americans, 37 Dutch, 21 Germans, 20 Danes, 14 Swiss, and 7 others.

Finances.—The revenue for 1897 was estimated at 9,369,300 francs, and expenditure at 10,141,871 francs. For 1898 a revenue of 14,765,050 francs was looked for, and the expenditure, including 2,524,920 francs for exceptional purposes, was expected to reach 17,251,975 francs. The King of the Belgians continues his annual subvention of 1,000,000 francs, and the Belgian treasury advances 2,000,000 a year for ten years dating from July 3, 1890. The other revenues are derived from sales and leases of lands, customs, posts, transport dues, and monopolies of rubber and ivory. The chief expenditures for 1898 were 6,870,631 francs for the public force, 3,218,711 francs for working the public domain, 1,945,358 francs for the marine, 1,595,960 francs for public works, and 1,495,278 francs for administrative expenses. The local revenue, which sufficed in 1886 for only 5 per cent. of the expenditure, now amounts to 68 per cent. A loan of 20,000,000 francs for the construction of public works was negotiated with Brussels bankers in June, 1898.

Public Force.—The military force consists of 16 companies of native troops, of whom two thirds are recruited within the State, numbering 6,120 men in 1896, commanded by 143 European officers and 146 drill sergeants. The Belgians are able to maintain their power with native troops alone by taking advantage of the hereditary hostilities of the different tribes, using Bateke soldiers to maintain order among the Bangalas and *vice versa*.

Commerce.—The value of the general imports in 1896 was 16,070,370 francs; of the general exports, 15,091,137 francs; of exports, the produce of the State, 12,389,599 francs. The chief imports are textile fabrics, guns and powder, spirits for the limited districts where traffic in spirits is allowed, and tobacco. The export of rubber in 1896 was 6,586,730 francs; of ivory, 3,826,320 francs; of palm oil and nuts, 1,914,137 francs. Other exports are coffee, which is raised in plantations on the upper Congo, orchilla weed, gum copal, earthnuts, and camwood. The Government has plantations of

tobacco, which is also grown in the native villages. Rubber found in the public domain is claimed by the Government. The imports from Belgium in 1896 amounted to 10,204,477 francs; exports to Belgium, 10,866,060 francs. The British and Dutch have most of the remaining trade. In 1897 the total value of exports was 17,450,000 francs, and of imports 23,425,000 francs. The imports from Belgium have increased from 4,000,000 francs in 1893 to over 16,000,000 francs, while of the export trade, which was once in the hands of the Dutch, two thirds is now carried on by Belgians. The rubber exports to Belgium have increased from 250,000 kilogrammes in 1893 to 1,500,000 kilogrammes in 1897.

Navigation.—The number of vessels in the foreign trade entered at Banana and Boma during 1896 was 155, of 257,384 tons; cleared, 153, of 254,076 tons. The number entered in the coasting trade was 385, of 11,667 tons; cleared, 410, of 12,683 tons.

Communications.—The post office in 1896 transmitted 74,526 internal and 207,156 foreign letters, papers, etc. Six steamers belonging to the State run up to Matadi, the head of navigation on the lower Congo, and 14 ply on the upper river, which is navigable for 1,000 miles from Stanley Pool to Stanley Falls. The railroad along the rapids above Matadi was completed and in operation for 164 miles in the beginning of 1898, leaving only the 96 miles between Tumba and Stanley Pool over which the portorage of goods was still necessary. The whole line was completed in March and opened to traffic in April. The construction of the road was begun in 1889, when the Belgian state subscribed

of the line was laid. The Belgian state once more came to the rescue, giving 15,000,000 francs more. The public subscribed 20,000,000 francs to complete the work, making the total cost 60,000,000 francs, equal to about \$50,000 a mile. Before the end of the year work was begun on a railroad in the upper Congo region connecting the head of navigation on the Lobefu, an affluent of Sankuru which flows into the Kassai, with the Lomami. Another line connecting the Lomami with the Lualaba is projected; also one from the Lualaba and Manyema to Lake Tanganyika. The Independent State has the right of expropriating the Congo Railroad, but by a convention signed on Feb. 10, 1898, has bound itself not to exercise the right till 1909.

Progress under the Belgians.—Although 9 out of every 10 of the State officials die or are invalidated in three years, the activity of the Belgians and the civilizing effect of their rule, though it has not been free from cruel abuses, is now acknowledged by disinterested witnesses. Great benefit has resulted from the suppression of the liquor traffic, which flourished on the lower Congo when they came. It is now permitted only at Matadi and along the border of the French and Portuguese possessions, where it would be impossible to stop contraband traffic. No liquor for natives is allowed to be carried on the railroad, and to render the decree effective the zone of prohibition has been extended on the south bank for nearly 50 miles down to the Mpozo river. The prohibition of exports of spirits from neighboring European possessions into a colony where sales to natives are illegal was one of the chief measures to be proposed at the new conference which the Belgian Government at



FISHING AT STANLEY FALLS IN CONGO RIVER.

10,000,000 francs of the estimated capital required as a perpetual loan at 3 per cent., enabling the company to obtain the remaining 15,000,000 francs from private capitalists in Belgium. The capital was used up in three years, and only a fiftieth part

the suggestion of Great Britain intended to convene at Brussels. Cannibalism is dying out in the Free State, not only through direct repression, but through the growth of a feeling against the practice, which is the outcome of the mingling of tribes

introduced originally for the purpose of lessening the risks of revolt and making the enforcement of discipline easier. The yoke of the Arab slave-dealers has at last been effectually broken, and intertribal wars have been suppressed over a wide and constantly extending area. The natives are being drilled into habits of regular work, not

ties of Christian Endeavor, 8,990, with 216,043 members; of additions to the churches during the year by confession of faith, 31,090; of baptisms, 13,035 of adults, and 12,664 of infants. Amount of contributions: For foreign missions, \$385,533; for education, \$163,478; for church building, \$76,431; for home missions, \$504,848; for the American



STANLEY POOL IN CONGO RIVER.

without forcible means, and efforts are made to educate the children. Baron Dhanis from his headquarters in Manyema was still engaged in the early months of 1898 in operations against the revolted Batetela soldiers of the Free State, who had recently defeated a detachment of troops that was pursuing them north of Lake Tanganyika. The Free State troops that marched out to punish the rebels could not succeed in engaging them, for they split up into several bands and took to flight when the troops approached. Lieut. Dorme's party overtook one band and gained a victory near the river Losva, west of 28° of longitude. A punitive force led by Lieut. Charquois encountered them on the shore of the lake in April, and was obliged to fall back until the reserves were brought up. The activity of the Belgians in the extreme eastern part of their territory, their project of a railroad from Manyema to Lake Tanganyika, still more their concession to England of the right of way for a telegraph line, to be followed by a railroad, from Rhodesia by way of Nyassa to Tanganyika and northward to Uganda, have moved the Germans to ask for a definite regulation of the frontier from Lake Tanganyika northward. It is claimed that the Rufizi river and the Kivu lake, where the Belgians have military stations, are on the German side of the border.

CONGREGATIONALISTS. Statistics of the Congregational churches in the United States, published in the "Congregational Yearbook" for 1898, show the number of churches to be 5,614; of ministers, 5,475; of members, 625,864; of members of Sunday schools, 685,704; of Young People's Socie-

Missionary Association, \$137,268; for Sunday schools, \$61,959; for ministerial aid, \$22,567; other contributions, \$1,095,240; amount received from legacies, \$1,357,485; contributions for home expenditures, \$6,643,818. Of the churches, 4,253 are registered as supplied, and 1,331 as vacant; of the ministers, 3,684 as in pastoral service, and 1,786 as without charge. The tables show a net gain of 10,669 church members.

The 7 theological seminaries—Andover, Bangor, Chicago, Hartford, Oberlin, Pacific, and Yale—return 64 professors, 25 instructors or lecturers, 19 resident licentiates or fellows, 28 in the advanced or graduate classes, and 433 undergraduates.

The American Congregational Church Building Society received in 1897, from all sources, \$295,504; its available resources were \$381,398. Aid was voted to the amount of \$296,495 to 166 churches; \$232,323 were paid in the form of grants or loans on houses of worship to 166 churches. Grants amounting to \$35,190 were voted to 57 churches for aid in parsonage work, and \$21,867 were paid on parsonage loans to 38 churches. Of the amounts paid out by the treasurer on houses of worship, \$125,500 were in the form of loans, and \$107,823 were in the form of grants. Aid given to parsonages was all in the form of loans. The amount paid back on church building loans during the year was \$19,082. A final settlement had been made with the executor of the will of the late J. Henry Stickney, of Baltimore. The securities representing the legacy had all been placed in the hands of the treasurer, and \$153,976 had been realized from the

sale of them; while some were still held, awaiting the most favorable opportunity for converting them into cash. The work of the year had been the largest, in all the departments, in the history of the society.

The Congregational Educational Society aided in 1897 8 colleges and 10 academies. In the New West department (for Utah and New Mexico) Salt Lake College and Proctor Academy were supported, with 10 mission schools, 5 in Utah and 5 in New Mexico. The total receipts of the society were \$187,414.

The contributions to the Sunday-School and Publishing Society in 1897 were \$53,962, and the total available income was \$61,150.

Home Missionary Society.—The seventy-second annual meeting of the Congregational Home Missionary Society was held at Cleveland, Ohio, June 7 to 9. The total income for the year, apart from contributions made to the auxiliaries, had been \$375,381, while the auxiliaries had raised and expended \$216,845 on their own fields and in State missions; and the debt had been reduced \$24,621. The mission work had been crippled by lack of means. The number of missionaries had been 172 less than in 1896, and the additions to the churches 2,253 fewer. During the year 2,758 churches had received aid, and 187 Sunday schools had been organized; while 159,116 pupils were enrolled in all the schools under the care of the society. Addresses were made and papers read during the meeting on "The New Mormonism," by a grandson of Brigham Young and the Rev. C. W. Luck; "The Work of Sunday-School Missionaries on the Pacific Coast, and other Local Aspects of the Work of the Society;" the "Opportunity in Alaska," by Mrs. E. T. Bailey; and "The Problem of the City," by the Rev. Josiah Strong, D. D., and the Rev. Washington Gladden, D. D.

American Missionary Association.—The fifty-second annual meeting of the American Missionary Association was held in Concord, N. H., beginning Oct. 25. The Rev. F. A. Noble, of Chicago, was chosen president for the ensuing year. The executive committee reported that the receipts for the fiscal year had been \$327,487, and the expenditures \$271,837. Of the receipts, \$37,405 were credited to tuition fees, and \$5,000 to payments to institutions from the Slater fund. The debt of \$54,945 existing at the end of the previous year had been paid, and the association had a balance of \$705. The contributions from the Women's missionary societies, comprising 33 State unions, had been \$26,530. The income from the Daniel Hand fund, instituted by Mr. Hand ten years before, had been \$66,684, which, with a balance of \$12,231 at the beginning of the year, made the total resources from that fund \$89,915. The expenditures on the same account had been \$66,842. It was stated in answer to a question that 84 per cent. of the total receipts of the association were spent in field work. The educational work of the association included 71 schools, with 395 instructors and 11,662 pupils. Of the schools, 6 were chartered institutions, 40 normal and graded schools, and 25 common schools. It had ever been the policy of the society in all schools to begin with elementary grades and retain all grades as schools advanced in their courses of study. Therefore the normal schools and the higher institutions provided that those who could secure only elementary instruction should have the opportunity for that. Through this provision in the advanced schools opportunity was given for furnishing practice-teaching to those who were preparing to teach others. The special elementary schools under the care of the association were chiefly in isolated places not cared for by the public schools, and were usually associated with the rural churches. Besides

the common schools taught by colored teachers, several important graded and normal schools were under the direction and care of graduates of the association's institutions, whose work was well spoken of. The 12 mountain schools returned 51 teachers and 1,605 students. The 6 higher institutions—Fisk University, Nashville, Tenn.; Talladega College, Talladega, Ala.; Tougaloo University, Tougaloo, Miss.; Straight University, New Orleans, La.; Tillotson College, Austin, Texas; and Avery Institute, Charleston, S. C.—had distinctive college studies, in which students who had approved themselves qualified and could continue to do so were were carried to graduation. The aim of these institutions was "to secure trained and thoughtful men of thorough education with adequate preparation for efficient service as pastors of churches, men who have been steadiest in their discipline to hold up continuously high ideas to a people who need them." Wood-working, iron-working, tool-making, shoemaking, printing, architecture, and agriculture had been systematically taught to boy pupils, and varied industries to girls. The Joseph K. Brick Agricultural, Industrial, and Normal School had been presented to the association by Mrs. Brick as a memorial of her husband, with a large, substantially built dormitory for young men, a building for manual instruction in carpentry and forging, and a barn. In the Church work in the South nearly 1,000 members had been added on confession of faith. No new mountain church had been taken upon the roll, and only 8 other churches in the South. The 202 churches of this class returned 135 ministers and missionaries, 11,061 members, 991 additions by profession of faith, and 15,059 pupils in church and mission Sunday schools. In the pastoral service of these churches several single ones had been combined into circuits, so that one minister would cover appointments at 3, 4, 5, and sometimes as many as 6 preaching places. The Indian missions, including those in Alaska, comprised 18 churches and 31 missionary out stations, with 1,016 members and 1,397 pupils in Sunday schools, 7 schools with 409 pupils, 80 missionaries and teachers (48 white and 32 Indian), and returned contributions for benevolence and church support of \$2,029. Indian young men and women were trained at the Santee Normal School, where was the chief center of the work of the association among the Indians for missionary and educational leadership among their own people. A correspondence institute was also conducted at Santee. Other Indian missions were at Elbe-woods, N. Dak. (the Fort Berthold mission), on the Cheyenne river (with the Oahe school), in the Standing Rock Agency, at the Rosebud Agency, in Montana, where a Christian Endeavor Society had been organized among the Crows, and in Alaska. The Chinese missions included 20 Chinese and Japanese schools, with 32 teachers, 9 of whom were Chinese, and 1,374 pupils, and returned 70 additions by confession of faith. A new central mission house with a chapel capable of seating 250 people, and a number of rooms for families—"a church, a school, and a Christian 'settlement'"—had been dedicated and occupied in San Francisco. The schools had been more largely attended than at any time before since the Chinese exclusion law went into operation. A special work was carried on for mothers and children.

The American Board.—The eighty-ninth annual meeting of the American Board of Commissioners for Foreign Missions was held at Grand Rapids, Mich., Oct. 4 to 7, the Rev. C. D. Lawson, D. D., presiding. The report of the home department referred to the distracting conditions in the fields of labor, which had drawn away large sums

during the year for special objects; to the disturbed financial conditions at home; and to the constant problem of carrying on the work abroad with inadequate means. Notwithstanding all efforts to increase receipts and diminish expenses, the year had closed with a debt of \$40,000, only \$5,000 less than that at the close of the previous year. The receipts from all sources had been \$687,209, and the expenditures \$727,500. A special sum of \$10,000 had been given for the endowment of a professorship in Foochow. The general summary of the work showed that there were in the 20 missions of the board 101 stations, 1,271 out-stations, 1,617 places for stated preaching, 169 ordained missionaries, 17 of whom were physicians, 11 other physicians; 341 women, 10 of whom were physicians and 168 wives of missionaries; and 4 other assistants; making 531 laborers from the United States; 220 native pastors, 417 native preachers and catechists, 1,713 native school-teachers, 260 Bible women, and 307 other native laborers; making a total of 2,977 native laborers, and of 3,508 American and native laborers together; 465 churches, with 47,122 members, 4,602 members added during the year, and 59,701 Sunday-school scholars. The whole number of members from the beginning was approximately given as 143,392. In the educational department were returned 18 theological seminaries and station classes, with 316 students for the ministry; 113 boarding and high schools, with 7,029 pupils (3,454 male and 3,575 female), and 1,189 common schools, with 46,963 pupils; making the total number under instruction 56,625. The native contributions, so far as reported, amounted to \$118,753. Of the missions of which special mention was made in the report that in south China was spoken of as having displayed a remarkable expansion of the Christian communities and growth in Christian work, while the native Christians had responded most generously to the call for contributions. It was noted also that converted Chinese returning from the United States had, in many instances, given liberally, both in money and personal services, to the work. In the other missions in China—Shansi, north China, and Foochow—the development had also been valuable, the churches were crowded, new centers were opened without effort. In a single station of the Foochow mission 5,000 persons were said to have given up idolatry and heathenism, and to be desiring a place in the Church. The three missions in Africa had had a year of success. The year in central and western Turkey had been more quiet, and increased interest had been manifested in spiritual things. In European Turkey, where the work had been among the Bulgarians, more attention was being given to the Albanians. From eastern Turkey, "notwithstanding the intense suffering and terror throughout the whole nation," there had come no word of fear or discouragement. A special paper on the missionary outlook in China, embodying the results of the observations of a deputation that had made an inspection of that field, recorded that the gains during the past decade had been rapid, and were increasing every year. So far as the work of the board was concerned, new methods were not needed, though they might require modification from time to time. School, medical, and evangelical work supplemented one another, and seemed to meet the demands of the field occupied. The missionaries were scholarly, devoted, conscientious, wise, careful in the use of missionary money, well informed as to matters concerning the whole earth, and almost uniformly successful. The report of the committee of fifteen appointed in 1897 to consider certain financial and economical questions recommended that the missions in papal lands

be not given up, but rather strengthened; that no less money than now be expended in educational work; that self-supporting churches be encouraged by the board in the future, as they have in the past; that deputations be sent from the United States to various mission fields regularly and with reference to their needs; that systematic effort be put forth continually to increase interest in the work of the board among all classes; that special effort be made to increase the constituency of the board, and that so far as may be, corporate members in future be chosen to represent groups of churches or districts, and because of their ability or willingness to aid in diffusing knowledge of the work of the board. A special committee was appointed, consisting of two members of each of the four co-operating committees, to employ and pay the salary and expenses of a man to go among the churches, awaken enthusiasm in them, and persuade single churches or groups of churches, institutions of learning, and individuals to undertake the support of single missionaries. An appropriation was made to meet the expense of this enterprise. For the first time in the history of the board a woman, Miss Margaret J. Evans, of Carleton College, Minnesota, was chosen a corporate member.

Triennial National Council.—The tenth Triennial National Council of Congregational Churches met in Portland, Ore., July 7. The Rev. F. A. Noble, D. D., of Chicago, was chosen moderator. A report was presented concerning the International Council which was to meet in Boston, Mass., in 1899, representing that the meetings would begin Sept. 20, to continue through seven working days; that the number of delegates from the United States, from England, and from other countries would be enlarged, severally, from 100 to 200, making the whole number 600; that the programme would be arranged by a committee of six in conference with a committee of the English Congregational Union, and the preacher of the sermon would be named by the English; and that a proposal by the Boston Congregational Club to be responsible for the proper entertainment of the members of the council had been accepted. A report on union with other denominations mentioned conferences that had been held with representatives of the Christian connection looking toward close federation rather than toward organic union. It recommended that a representative council or conference of the Protestant churches in the United States and Canada be called, to meet in the city of Washington in the year 1900, for the purpose of forming an interdenominational union, to meet at regular periods, and serve as a visible expression of the unity of the churches, and as a common bond in the fellowship with each other and their service of the Lord Jesus Christ. A report was also read on denominational comity. The committee on the John Robinson memorial church at Gainsborough, England, to be built at a cost of about \$35,000, recommended that American Congregationalists give \$5,000 toward the extinction of the debt, thus making a contribution of \$1 from American Congregationalists to \$6 from English. A report on the training of ministers, as adopted, recommended, "that of candidates for the Congregational ministry all who can should take full academic training and a complete course in the theological seminary; that while recognizing the call of God to exceptional men of limited education to preach the Gospel, our theological seminaries, educational societies, and churches should use increased care to maintain the intellectual and educational standard of the Christian ministry. We deem the present an opportune time for councils, churches, conferences, and associations to make

steadfast effort to elevate, and on no account to lower, the requirements for entrance upon the pastoral office; that seminary curricula, while aiming at the highest intellectual and scholarly attainment, should for all students give largely increased inclusion to the practical and tactical in training; that utmost care should be exercised not only in the admission of students, but also in continuing them after admission, to the end of discouraging the incapable and unsuitable, and retaining only the fit; that our churches should exercise much greater care in admitting to their pulpits, whether for purposes of candidacy or supply, men whose credentials as to character and standing have not been thoroughly examined and approved; that from candidates for approbation before associations and conferences, and from men of other denominations seeking admission to our body, evidence should be required of adequate training and experience and of a reasonable familiarity with our polity, and that in lack of these only a limited commendation be granted pending the prosecution of further study; that ministers and churches should exercise the greatest diligence in seeking to recruit the ranks of the ministry from young men of promise in their parishes; and that officers of the Education Society, boards of trust, committees of recommendation, and seminary faculties should hold to close examination and continued strict account all who make application for and all who are receiving educational aid. On the subject of ministerial standing the council reiterated the declarations of the councils of 1886 and 1892—that standing in the Congregational ministry is required by membership in a Congregational church, ordination to the Christian ministry, and reception as an ordained minister into the fellowship of the Congregational churches, in accordance with the usage of the State or territorial organization of churches in which the applicant may reside; and resolved, further, “that in the transfer of ministerial membership from an association, conference, or other ecclesiastical body, in the judgment of the council, the gaining of new membership is ecclesiastically impossible until the applicant shall have been fully released from his previous ecclesiastical membership.” A report on secret societies was adopted which, while commending the fraternal and philanthropic purposes of such organizations, expressed a desire that they might be “supplanted by the higher social service and warmer Christian fellowship of the Church of God.” A report was adopted favoring affiliation with the Antislavery League in its temperance work. A Committee on Comity, Federation, and Union was appointed to seek fellowship and closer relations with the Congregationalists of Canada and the Methodist Protestants of the United States, and the promotion of Christian union generally. The various Congregational benevolent societies were represented on the floor of the council in addresses setting forth their condition and needs. Papers were read during the meetings advocating the union of all churches, of whatever doctrine and policy, in temperance and other reforms, on “A Common Basis of Belief,” “Christian Giving and Living,” “Modern Methods in Mission Work,” “Religious Movements on the Pacific Coast,” and other subjects.

In the case of two ecclesiastical organizations in Alabama claiming representation in the council, one composed of white members only and the other not recognizing distinctions of color, the council, following the example of previous councils, refused to decide upon the differences between them, but referred the question back to the Congregationalists of Alabama with the advice that they come together in the spirit of Christ and settle it between themselves.

British Congregationalists.—Statistics of the British Congregational Churches, published at the close of 1897, showed that there were on Dec. 1 of that year in England, including Monmouthshire, 3,362 churches and mission stations, affording accommodation for 1,263,375 persons, and in Wales and the Channel Islands 1,090 places of worship, with accommodations for 372,657 persons. If to these were added 166 churches from which no reports were received, the total number of churches would be increased to 4,618. In Scotland there were 176 churches, and in Ireland 29 churches, with 96 mission stations. The whole number of churches for the United Kingdom was thus 4,919, besides some mission stations in Scotland not included in the making up of the tables. In the British colonies and on the Continent of Europe there were 1,054 churches and mission stations and 423 ordained ministers. The number of ministers in England and Wales was 2,881, in Scotland 201, and in Ireland 30—in the whole United Kingdom, 3,112. The various county associations returned in all 225 accredited lay pastors and evangelists. The Union of Welsh Independents returned 140,652 members, 142,141 adherents, and 147,884 members of Sunday schools in 1,251 churches and mission stations. The British colleges had 409, and the colonial colleges 27 students. The institutes in South Africa, Madagascar, and the South Seas for the training of native pastors and evangelists had about 300 students, under the care of the London Missionary Society.

The sixty-sixth annual meeting of the Congregational Union of England and Wales was held in London, May 9. The Rev. Alfred Rowland presided. The report showed that there were, including mission stations, 1,600 churches in the union. Reference was made to a visit that had been paid by the Rev. Charles A. Berry, representing the union and the Council of Free Churches, to the United States as having had beneficent results in promoting harmony between English and American churches. In the matter of Lord Wharton's “Non-conformist Book Charity,” the administration of which, it was alleged, had fallen under the control of the Established Church and was carried on in its interest, the High Court of Justice (Chancery Division) had ordered the establishment of a scheme, and the Attorney General had invited suggestions from the Congregational Union. A special subcommittee had recommended that the charity be deemed one for the free distribution of Bibles among poor children in the counties of York, Westmoreland, Cumberland, and Bucks. The Literature Committee referred to the publication of Dr. John Brown's Congregational Union “Lectures on the Apostolic Succession,” and reported that Mr. Johnson Evans's “Summary of the History of the English Free Churches” was expected shortly to be ready. Among the rare works acquired by the Congregational Library were a collection of early Puritan tracts, published about 1590, under the title “Part of a Register,” etc., and a volume of theses maintained by students at Geneva, translated and published with an introduction by John Wesley. The financial report showed a revenue of £17,440, with a credit balance of £1,092. Resolutions were passed favoring the Sunday closing of public houses, protesting against the alliance of Church and state, and denouncing the proposed endowment of a Roman Catholic University for Ireland.

The autumnal meeting of the union was held at Halifax in October. The chairman in his opening address, which was on “Priestism and Priesthood,” accounted for the interest manifested by Congregationalists in what was going on in the Episcopal

Church, although they had voluntarily withdrawn themselves from it, by observing that that Church was national, enjoying its privileges by the will of the nation, of which Nonconformists were a voting part. The assembly, declaring that it was convinced from the history of the past and observation of the present Catholic world "that sacerdotalism triumphant means national decay," in a resolution bearing on the ritualistic movement, expressed its sympathy with that section of the Church of England "which is striving on the authority of Scripture and by the power of the Spirit to resist the inroads of the common enemy." Resolutions on the education question affirmed the existence of an imperative necessity for the creation of undenominational colleges for the training of teachers, under public management, and reiterated former resolutions demanding public control of all denominational schools receiving assistance from the national exchequer or local rates, and the appointment of all teachers in such schools without reference to church or creed. Another resolution expressed satisfaction over the call of the Czar of Russia for a conference of nations on disarmament, and urged upon her Majesty's Government to do its utmost to make the conference a success. A statement was made on behalf of the Church Aid Society that in the past three or four years it had made grants of from £3,000 to £4,000 a year to increase the stipends of ministers to a minimum of £90 a year, including the rental value of the manse, and in doing this had exceeded its income. The Committee on Church Extension reported that the aggregate amount which the local unions and associations were seeking to raise for that object had increased from £45,554 in May to £50,554, while the contributions and subscriptions due through five years had increased from £23,371 to £25,000. Appeals for contributions to increase the Central fund had met with only a small degree of success. A delegate from Ireland represented that Congregationalism in that country was mainly confined to the north, but was growing. There were five large churches in Belfast, with a sixth to be opened soon, and two missions. The Irish Congregational Union was contemplating the assumption of the work of the Irish Evangelical Society of the English union, provided it was transferred free of debt. The Rev. James Gibson, of Port Elizabeth, represented that there were in South Africa 37 principal native Congregational churches absolutely self-supporting, with 37 branch churches, 113 mission stations, 10,569 members, and 68,000 adherents; and that the native contributions in 1897 were £12,000. Subjects were considered, in papers read during the meetings and in discussions, relating to the "Public Ordinances of the Church," "The Spiritual Meaning of the Lord's Supper," "Special Methods of Christian Culture," "The Biblical Instruction of the Children of our Congregations not going to Sunday School," the "Pleasant Sunday Afternoon," "Methods of Reaching the Working Classes," and "The Place of the Old Testament in Present-day Preaching." A meeting of the Young People's Union was addressed on "The Cultivation of a Healthier Denominational Sentiment among Young People from the Point of View of the Christian Endeavor Movement." A meeting was held in support of social settlements.

London Missionary Society.—The income of the London Missionary Society had been £159,132, or £1,750 larger than that of the previous year, but the total expenditure having been £167,543, the report showed a deficiency of £8,416. Two hundred and sixty-one missionaries—192 men and 69 women—were employed, with 924 ordained native agents and 2,808 preachers; and 55,541 church

members, 156,982 native adherents, 688 Sunday schools with 35,031 pupils, and 1,167 day schools with 52,715 pupils were returned. The contributions from the mission stations amounted to £52,715. The Rev. B. Wardlaw Thompson, one of the secretaries of the society, and his colleagues, as a deputation to visit the missionary stations in the East, returned in April, 1898, and reported to the Board of Directors concerning his observations of the missions in New Guinea, the South Seas, Madagascar, and South Africa. The relations of the missions in Madagascar were delicate, owing to the change of sovereignty of the country, and international and religious jealousies between the French Roman Catholics and the English and native Protestants. The disposition of the French Government as represented by Gen. Galliené was regarded as favorable to the continuance of the mission work without interference; but other influences existed which were hostile, subtle, and dangerous. The attention of the deputation having been called by Gen. Galliené to evidence which he claimed to possess of lack of loyalty on the part of agents of the society who hoped to see its influence used with the British Government in favor of the ultimate rescue of the island from French rule, the deputation, while not believing in the existence of any such feeling, published a manifesto on the subject, in French and Malagasy. This document mentioned the charges made, and continued:

"We believe these charges to be false, trumped up by interested parties for their own purposes. We made bold to assure the general that these charges were false, made up for the purpose of bringing you into suspicion with the authorities. Still, lest any of you have, through folly and ignorance, done anything to bring suspicion upon you, we declare again what we have often made known, that the London Missionary Society has no connection with the English Government. Its only object is the conversion of men and women. We beg you then to make known to everybody that there is not the slightest hope of England's interfering on your behalf, either now or in the future. Also, let it be understood that the continuance of the society's work here will largely depend on the loyalty of its adherents. We rejoice that the Governor General of Madagascar declares often, and in all directions, that you have absolute liberty to follow whatever religion you choose. We trust you will quit yourselves like men, and prove by your conduct that all real Protestants are loyal and faithful subjects of France, the great nation with which you are now united."

The Colonial Missionary Society was represented as doing three times the amount of work it had attempted five years previously, while its income had not risen in proportion, and the financial report of the year showed a deficit of £500. Toward the special fund of £5,000 which the society had undertaken to raise when it took over the charge of native churches founded by the London Missionary Society, £4,346 had been secured so far.

CONGRESS. The second session of the Fifty-fifth Congress began Monday, Dec. 6, 1897, and the President sent in the following message:

To the Senate and House of Representatives:

It gives me pleasure to extend greeting to the Fifty-fifth Congress, assembled in regular session at the seat of Government, with many of whose Senators and Representatives I have been associated in the legislative service. Their meeting occurs under felicitous conditions, justifying sincere congratulation and calling for our grateful acknowledgment to a beneficent Providence which has so signally blessed and prospered us as a nation.

Peace and good will with all the nations of the earth continue unbroken.

A matter of genuine satisfaction is the growing feeling of fraternal regard and unification of all sections of our country, the incompleteness of which has too long delayed realization of the highest blessings of the Union. The spirit of patriotism is universal and is ever increasing in fervor. The public questions which now must engross us are lifted far above either partisanship, prejudice, or former sectional differences. They affect every part of our common country alike and permit of no division on ancient lines. Questions of foreign policy, of revenue, the soundness of the currency, the inviolability of national obligations, the improvement of the public service, appeal to the individual conscience of every earnest citizen to whatever party he belongs or in whatever section of the country he may reside.

The extra session of this Congress which closed during July last enacted important legislation, and while its full effect has not yet been realized, what it has already accomplished assures us of its timeliness and wisdom. To test its permanent value, further time will be required, and the people, satisfied with its operation and results thus far, are in no mind to withhold from it a fair trial.

Tariff legislation having been settled by the extra session of Congress, the question next pressing for consideration is that of the currency.

The work of putting our finances upon a sound basis, difficult as it may seem, will appear easier when we recall the financial operations of the Government since 1866. On the 30th day of June of that year we had outstanding demand liabilities in the sum of \$728,868,447.41. On the 1st of January, 1879, these liabilities had been reduced to \$443,889,495.88. Of our interest-bearing obligations, the figures are even more striking. On July 1, 1866, the principal of the interest-bearing debt of the Government was \$2,332,381,208. On the 1st day of July, 1893, this sum had been reduced to \$585,037,100, or an aggregate reduction of \$1,747,294,108. The interest-bearing debt of the United States on the 1st day of December, 1897, was \$847,365,620. The Government money now outstanding (Dec. 1) consists of \$346,681,016 of United States notes, \$107,793,280 of Treasury notes issued by authority of the law of 1890, \$384,963,504 of silver certificates, and \$61,280,761 of standard silver dollars.

With the great resources of the Government and with the honorable example of the past before us, we ought not to hesitate to enter upon a currency revision which will make our demand obligations less onerous to the Government and relieve our financial laws from ambiguity and doubt.

The brief review of what was accomplished from the close of the war to 1893 makes unreasonable and groundless any distrust either of our financial ability or soundness; while the situation from 1893 to 1897 must admonish Congress of the immediate necessity of so legislating as to make the return of the conditions then prevailing impossible.

There are many plans proposed as a remedy for the evil. Before we can find the true remedy we must appreciate the real evil. It is not that our currency of every kind is not good, for every dollar of it is good; good because the Government's pledge is out to keep it so, and that pledge will not be broken. However, the guarantee of our purpose to keep the pledge will be best shown by advancing toward its fulfillment.

The evil of the present system is found in the great cost to the Government of maintaining the parity of our different forms of money—that is, keeping all of them at par with gold. We surely can not be longer heedless of the burden this imposes

upon the people, even under fairly prosperous conditions, while the past four years have demonstrated that it is not only an expensive charge upon the Government, but a dangerous menace to the national credit.

It is manifest that we must devise some plan to protect the Government against bond issues for repeated redemptions. We must either curtail the opportunity for speculation, made easy by the multiplied redemptions of our demand obligations, or increase the gold reserve for their redemption. We have \$900,000,000 of currency which the Government by solemn enactment has undertaken to keep at par with gold. Nobody is obliged to redeem in gold but the Government. The banks are not required to redeem in gold. The Government is obliged to keep equal with gold all its outstanding currency and coin obligations, while its receipts are not required to be paid in gold. They are paid in every kind of money but gold, and the only means by which the Government can with certainty get gold is by borrowing. It can get it in no other way when it most needs it. The Government, without any fixed gold revenue, is pledged to maintain gold redemption, which it has steadily and faithfully done, and which under the authority now given it will continue to do.

The law which requires the Government after having redeemed its United States notes to pay them out again as current funds demands a constant replenishment of the gold reserve. This is especially so in times of business panic and when the revenues are insufficient to meet the expenses of the Government. At such times the Government has no other way to supply its deficit and maintain redemption but through the increase of its bonded debt, as during the administration of my predecessor, when \$262,315,400 of 4-per-cent. bonds were issued and sold and the proceeds used to pay the expenses of the Government in excess of the revenues and sustain the gold reserve. While it is true that the greater part of the proceeds of these bonds were used to supply deficient revenues, a considerable portion was required to maintain the gold reserve.

With our revenues equal to our expenses, there would be no deficit requiring the issuance of bonds. But if the gold reserve falls below \$100,000,000, how will it be replenished except by selling more bonds? Is there any other way practicable under existing law? The serious question then is, Shall we continue the policy that has been pursued in the past; that is, when the gold reserve reaches the point of danger, issue more bonds and supply the needed gold, or shall we provide other means to prevent these recurring drains upon the gold reserve? If no further legislation is had and the policy of selling bonds is to be continued, then Congress should give the Secretary of the Treasury authority to sell bonds at long or short periods, bearing a less rate of interest than is now authorized by law.

I earnestly recommend, as soon as the receipts of the Government are quite sufficient to pay all the expenses of the Government, that when any of the United States notes are presented for redemption in gold and are redeemed in gold, such notes shall be kept and set apart, and only paid out in exchange for gold. This is an obvious duty. If the holder of the United States note prefers the gold and gets it from the Government, he should not receive back from the Government a United States note without paying gold in exchange for it. The reason for this is made all the more apparent when the Government issues an interest-bearing debt to provide gold for the redemption of United States notes—a non-interest-bearing debt. Surely it should not pay them out again except on demand and for

gold. If they are put out in any other way, they may return again to be followed by another bond issue to redeem them—another interest-bearing debt to redeem a non-interest-bearing debt.

In my view it is of the utmost importance that the Government should be relieved from the burden of providing all the gold required for exchanges and export. This responsibility is alone borne by the Government without any of the usual and necessary banking powers to help itself. The banks do not feel the strain of gold redemption. The whole strain rests upon the Government, and the size of the gold reserve in the treasury has come to be, with or without reason, the signal of danger or of security. This ought to be stopped.

If we are to have an era of prosperity in the country, with sufficient receipts for the expenses of the Government, we may feel no immediate embarrassment from our present currency; but the danger still exists and will be ever present menacing us so long as the existing system continues. And besides, it is in times of adequate revenues and business tranquillity that the Government should prepare for the worst. We can not avoid without serious consequences the wise consideration and prompt solution of this question.

The Secretary of the Treasury has outlined a plan in great detail for the purpose of removing the threatened recurrence of a depleted gold reserve and save us from future embarrassment on that account. To this plan I invite your careful consideration.

I concur with the Secretary of the Treasury in his recommendation that national banks be allowed to issue notes to the face value of the bonds which they have deposited for circulation, and that the tax on circulating notes secured by deposit of such bonds be reduced to one half of 1 per cent. per annum. I also join him in recommending that authority be given for the establishment of national banks with a minimum capital of \$25,000. This will enable the smaller villages and agricultural regions of the country to be supplied with currency to meet their needs.

I recommend that the issue of national bank notes be restricted to the denomination of \$10 and upward. If the suggestions I have herein made shall have the approval of Congress, then I would recommend that national banks be required to redeem their notes in gold.

The most important problem with which this Government is now called upon to deal pertaining to its foreign relations concerns its duty toward Spain and the Cuban insurrection. Problems and conditions more or less in common with those now existing have confronted this Government at various times in the past. The story of Cuba for many years has been one of unrest, growing discontent, an effort toward a larger enjoyment of liberty and self-control, of organized resistance to the mother country, of depression after distress and warfare, and of ineffectual settlement to be followed by renewed revolt. For no enduring period since the enfranchisement of the continental possessions of Spain in the Western Continent has the condition of Cuba or the policy of Spain toward Cuba not caused concern to the United States.

The prospect from time to time that the weakness of Spain's hold upon the island and the political vicissitudes and embarrassments of the home government might lead to the transfer of Cuba to a continental power called forth, between 1823 and 1890, various emphatic declarations of the policy of the United States to permit no disturbance of Cuba's connection with Spain unless in the direction of independence or acquisition by us through purchase: nor has there been any change of this

declared policy since upon the part of the Government.

The revolution which began in 1868 lasted for ten years despite the strenuous efforts of the successive peninsular governments to suppress it. Then, as now, the Government of the United States testified its grave concern and offered its aid to put an end to bloodshed in Cuba. The overtures made by Gen. Grant were refused and the war dragged on, entailing great loss of life and treasure and increased injury to American interests, besides throwing enhanced burdens of neutrality upon this Government. In 1878 peace was brought about by the truce of Zanjón, obtained by negotiations between the Spanish commander, Martínez de Campos, and the insurgent leaders.

The present insurrection broke out in February, 1895. It is not my purpose at this time to recall its remarkable increase or to characterize its tenacious resistance against the enormous forces massed against it by Spain. The revolt and the efforts to subdue it carried destruction to every quarter of the island, developing wide proportions and defying the efforts of Spain for its suppression. The civilized code of war has been disregarded, no less so by the Spaniards than by the Cubans.

The existing conditions can not but fill this Government and the American people with the gravest apprehension. There is no desire on the part of our people to profit by the misfortunes of Spain. We have only the desire to see the Cubans prosperous and contented, enjoying that measure of self-control which is the inalienable right of man, protected in their right to reap the benefit of the exhaustless treasures of their country.

The offer made by my predecessor in April, 1896, tendering the friendly offices of this Government failed. Any mediation on our part was not accepted. In brief, the answer read: "There is no effectual way to pacify Cuba unless it begins with the actual submission of the rebels to the mother country." Then only could Spain act in the promised direction, of her own motion and after her own plans.

The cruel policy of concentration was initiated Feb. 16, 1896. The productive districts controlled by the Spanish armies were depopulated. The agricultural inhabitants were herded in and about the garrison towns, their lands laid waste, and their dwellings destroyed. This policy the late Cabinet of Spain justified as a necessary measure of war and as a means of cutting off supplies from the insurgents. It has utterly failed as a war measure. It was not civilized warfare. It was extermination.

Against this abuse of the rights of war I have felt constrained on repeated occasions to enter the firm and earnest protest of this Government. There was much of public condemnation of the treatment of American citizens by alleged illegal arrests and long imprisonment awaiting trial or pending protracted judicial proceedings. I felt it my first duty to make instant demand for the release or speedy trial of all American citizens under arrest. Before the change of the Spanish Cabinet in October last twenty-two prisoners, citizens of the United States, had been given their freedom.

For the relief of our own citizens suffering because of the conflict the aid of Congress was sought in a special message, and under the appropriation of April 4, 1897, effective aid has been given to American citizens in Cuba, many of them at their own request having been returned to the United States.

The instructions given to our new minister to Spain before his departure for his post directed him to impress upon that Government the sincere wish of the United States to lend its aid toward the ending of the war in Cuba by reaching a peaceful

and lasting result, just and honorable alike to Spain and to the Cuban people. These instructions recited the character and duration of the contest, the widespread losses it entails, the burdens and restraints it imposes upon us, with constant disturbance of national interests, and the injury resulting from an indefinite continuance of this state of things. It was stated that at this juncture our Government was constrained to seriously inquire if the time was not ripe when Spain of her own volition, moved by her own interests and every sentiment of humanity, should put a stop to this destructive war and make proposals of settlement honorable to herself and just to her Cuban colony. It was urged that as a neighboring nation, with large interests in Cuba, we could be required to wait only a reasonable time for the mother country to establish its authority and restore peace and order within the borders of the island; that we could not contemplate an indefinite period for the accomplishment of this result.

No solution was proposed to which the slightest idea of humiliation to Spain could attach, and indeed precise proposals were withheld to avoid embarrassment to that Government. All that was asked or expected was that some safe way might be speedily provided and permanent peace restored. It so chanced that the consideration of this offer, addressed to the same Spanish administration which had declined the tenders of my predecessor and which for more than two years had poured men and treasure into Cuba in the fruitless effort to suppress the revolt, fell to others. Between the departure of Gen. Woodford, the new envoy, and his arrival in Spain, the statesman who had shaped the policy of his country fell by the hand of an assassin, and although the Cabinet of the late Premier still held office and received from our envoy the proposals he bore, that Cabinet gave place within a few days thereafter to a new administration, under the leadership of Sagasta.

The reply to our note was received on the 23d day of October. It is in the direction of a better understanding. It appreciates the friendly purposes of this Government. It admits that our country is deeply affected by the war in Cuba and that its desires for peace are just. It declares that the present Spanish Government is bound by every consideration to a change of policy that should satisfy the United States and pacify Cuba within a reasonable time. To this end Spain has decided to put into effect the political reforms heretofore advocated by the present Premier without halting for any consideration in the path which in its judgment leads to peace. The military operations, it is said, will continue, but will be humane and conducted with all regard for private rights, being accompanied by political action leading to the autonomy of Cuba while guarding Spanish sovereignty. This, it is claimed, will result in investing Cuba with a distinct personality, the island to be governed by an executive and by a local council or Chamber, reserving to Spain the control of the foreign relations, the army and navy, and the judicial administration. To accomplish this the present Government proposes to modify existing legislation by decree, leaving the Spanish Cortes, with the aid of Cuban Senators and Deputies, to solve the economic problem and properly distribute the existing debt.

In the absence of a declaration of the measures that this Government proposes to take in carrying out its proffer of good offices, it suggests that Spain be left free to conduct military operations and grant political reforms, while the United States for its part shall enforce its neutral obligations and cut off the assistance which it is asserted the insurgents receive from this country. The supposition of an

indefinite prolongation of the war is denied. It is asserted that the western provinces are already well-nigh reclaimed, that the planting of cane and tobacco therein has been resumed, and that by force of arms and new and ample reforms very early and complete pacification is hoped for.

The immediate amelioration of existing conditions under the new administration of Cuban affairs is predicted, and therewithal the disturbance and all occasion for any change of attitude on the part of the United States. Discussion of the question of the international duties and responsibilities of the United States as Spain understands them is presented, with an apparent disposition to charge us with failure in this regard. This charge is without any basis in fact. It could not have been made if Spain had been cognizant of the constant efforts this Government has made at the cost of millions and by the employment of the administrative machinery of the nation at command to perform its full duty according to the law of nations. That it has successfully prevented the departure of a single military expedition or armed vessel from our shores in violation of our laws would seem to be a sufficient answer. But of this aspect of the Spanish note it is not necessary to speak further now. Firm in the conviction of a wholly performed obligation, due response to this charge has been made in diplomatic course.

Throughout all these horrors and dangers to our own peace this Government has never in any way abrogated its sovereign prerogative of reserving to itself the determination of its policy and course according to its own high sense of right and in consonance with the dearest interests and convictions of our own people should the prolongation of the strife so demand.

Of the untried measures there remain only: Recognition of the insurgents as belligerents, recognition of the independence of Cuba, neutral intervention to end the war by imposing a rational compromise between the contestants, and intervention in favor of one or the other party. I speak not of forcible annexation, for that can not be thought of. That by our code of morality would be criminal aggression.

Recognition of the belligerency of the Cuban insurgents has often been canvassed as a possible if not inevitable step both in regard to the previous ten years' struggle and during the present war. I am not unmindful that the two houses of Congress in the spring of 1896 expressed the opinion by concurrent resolution that a condition of public war existed requiring or justifying the recognition of a state of belligerency in Cuba, and during the extra session the Senate voted a joint resolution of like import, which, however, was not brought to a vote in the House of Representatives. In the presence of these significant expressions of the sentiment of the legislative branch it behooves the Executive to soberly consider the conditions under which so important a measure must needs rest for justification. It is to be seriously considered whether the Cuban insurrection possesses beyond dispute the attributes of statehood, which alone can demand the recognition of belligerency in its favor. Possession, in short, of the essential qualifications of sovereignty by the insurgents and the conduct of the war by them according to the received code of war are no less important factors toward the determination of the problem of belligerency than are the influences and consequences of the struggle upon the internal polity of the recognizing state.

The wise utterances of President Grant in his memorable message of Dec. 7, 1875, are signally relevant to the present situation in Cuba, and it may be wholesome now to recall them. At that

time a ruinous conflict had for seven years wasted the neighboring island. During all those years an utter disregard of the laws of civilized warfare and of the just demands of humanity, which called forth expressions of condemnation from the nations of Christendom, continued unabated. Desolation and ruin pervaded that productive region, enormously affecting the commerce of all commercial nations, but that of the United States more than any other by reason of proximity and larger trade and intercourse. At that juncture Gen. Grant uttered these words, which now, as then, sum up the elements of the problem:

"A recognition of the independence of Cuba being, in my opinion, impracticable and indefensible, the question which next presents itself is that of the recognition of belligerent rights in the parties to the contest. In a former message to Congress I had occasion to consider this question, and reached the conclusion that the conflict in Cuba, dreadful and devastating as were its incidents, did not rise to the fearful dignity of war. . . . It is possible that the acts of foreign powers, and even acts of Spain herself, of this very nature, might be pointed to in defense of such recognition. But now, as in its past history, the United States should carefully avoid the false lights which might lead it into the mazes of doubtful law and of questionable propriety, and adhere rigidly and sternly to the rule, which has been its guide, of doing only that which is right and honest and of good report. The question of according or of withholding rights of belligerency must be judged, in every case, in view of the particular attending facts. Unless justified by necessity, it is always, and justly, regarded as an unfriendly act and a gratuitous demonstration of moral support to the rebellion. It is necessary, and it is required, when the interests and rights of another government or of its people are so far affected by a pending civil conflict as to require a definition of its relations thereto. But this conflict must be one which will be recognized in the sense of international law as war.

"Belligerence, too, is a fact. The mere existence of contending armed bodies, and their occasional conflicts, do not constitute war in the sense referred to. Applying to the existing condition of affairs in Cuba the tests recognized by publicists and writers on international law, and which have been observed by nations of dignity, honesty, and power, when free from sensitive or selfish and unworthy motives, I fail to find in the insurrection the existence of such a substantial political organization, real, palpable, and manifest to the world, having the forms and capable of the ordinary functions of government toward its own people and to other States, with courts for the administration of justice, with a local habitation, possessing such organization of force, such material, such occupation of territory as to take the contest out of the category of a mere rebellious insurrection, or occasional skirmishes, and place it on the terrible footing of war, to which a recognition of belligerency would aim to elevate it.

"The contest, moreover, is solely on land; the insurrection has not possessed itself of a single seaport whence it may send forth its flag, nor has it any means of communication with foreign powers except through the military lines of its adversaries. No apprehension of any of those sudden and difficult complications which a war upon the ocean is apt to precipitate upon the vessels, both commercial and national, and upon the consular officers of other powers, calls for the definition of their relations to the parties to the contest. Considered as a question of expediency, I regard the accordance of belligerent rights still to be as unwise and pre-

mature as I regard it to be at present indefensible as a measure of right.

"Such recognition entails upon the country according the rights which flow from it difficult and complicated duties, and requires the exaction from the contending parties of the strict observance of their rights and obligations. It confers the right of search upon the high seas by vessels of both parties; it would subject the carrying of arms and munitions of war, which now may be transported freely and without interruption in vessels of the United States, to detention and possible seizure; it would give rise to countless vexatious questions, would release the parent Government from responsibility for acts done by the insurgents, and would invest Spain with the right to exercise the supervision, recognized by our treaty of 1795, over our commerce on the high seas, a very large part of which, in its traffic between the Atlantic and the Gulf States and between all of them and the States on the Pacific, passes through the waters which wash the shores of Cuba. The exercise of this supervision could scarce fail to lead, if not to abuses, certainly to collision perilous to the peaceful relations of the two States. There can be little doubt as to what result such supervision would before long draw this nation. It would be unworthy of the United States to inaugurate the possibilities of such result by measures of questionable right or expediency or by any indirection."

Turning to the practical aspects of a recognition of belligerency and reviewing its inconveniences and positive dangers, still further pertinent considerations appear. In the code of nations there is no such thing as a naked recognition of belligerency unaccompanied by the assumption of international neutrality. Such recognition without more will not confer upon either party to a domestic conflict a status not theretofore actually possessed or affect the relation of either party to other states. The act of recognition usually takes the form of a solemn proclamation of neutrality which recites the *de facto* condition of belligerency as its motive. It announces a domestic law of neutrality in the declaring state. It assumes the international obligations of a neutral in the presence of a public state of war. It warns all citizens and others within the jurisdiction of the proclamaunt that they violate those rigorous obligations at their own peril and can not expect to be shielded from the consequences. The right of visit and search on the seas and seizures of vessels and cargoes and contraband of war and good prize under admiralty law must under international law be admitted as a legitimate consequence of a proclamation of belligerency. While according the equal belligerent rights defined by public law to each party in our ports, disfavours would be imposed on both which, while nominally equal, would weigh heavily in behalf of Spain herself. Possessing a navy and controlling the ports of Cuba, her maritime rights could be asserted not only for the military investment of the island, but up to the margin of our own territorial waters, and a condition of things would exist for which the Cubans within their own domain could not hope to create a parallel; while its creation through aid or sympathy from within our domain would be even more impossible than now, with the additional obligations of international neutrality we would perforce assume.

The enforcement of this enlarged and onerous code of neutrality would only be influential within our own jurisdiction by land and sea, and applicable by our own instrumentalities. It could impart to the United States no jurisdiction between Spain and the insurgents. It would give the United States no right of intervention to enforce the con-

duct of the strife within the paramount authority of Spain according to the international code of war.

For these reasons, I regard the recognition of the belligerency of the Cuban insurgents as now unwise, and therefore inadmissible. Should that step hereafter be deemed wise as a measure of right and duty, the Executive will take it.

Intervention upon humanitarian grounds has been frequently suggested, and has not failed to receive my most anxious and earnest consideration. But should such a step be now taken when it is apparent that a hopeful change has supervened in the policy of Spain toward Cuba? A new Government has taken office in the mother country. It is pledged in advance to the declaration that all the effort in the world can not suffice to maintain peace in Cuba by the bayonet; that vague promises of reform after subjugation afford no solution of the insular problem; that with a substitution of commanders must come a change of the past system of warfare for one in harmony with a new policy which shall no longer aim to drive the Cubans to the "horrible alternative of taking to the thicket or succumbing in misery"; that reforms must be instituted in accordance with the needs and circumstances of the time, and that these reforms, while designed to give full autonomy to the colony and to create a virtual entity and self-controlled administration, shall yet conserve and affirm the sovereignty of Spain by a just distribution of powers and burdens upon a basis of mutual interest untainted by methods of selfish expediency.

The first acts of the new Government lie in these honorable paths. The policy of cruel rapine and extermination that so long shocked the universal sentiment of humanity has been reversed. Under the new military commander a broad clemency is proffered. Measures have already been set on foot to relieve the horrors of starvation. The power of the Spanish armies, it is asserted, is to be used not to spread ruin and desolation, but to protect the resumption of peaceful agricultural pursuits and productive industries. That past methods are futile to force a peace by subjugation is freely admitted, and that ruin without conciliation must inevitably fail to win for Spain the fidelity of a contented dependency.

Decrees in application of the foreshadowed reforms have already been promulgated. The full text of these decrees has not been received, but, as furnished in a telegraphic summary from our minister, are: All civil and electoral rights of peninsular Spaniards are, in virtue of existing constitutional authority, forthwith extended to colonial Spaniards. A scheme of autonomy has been proclaimed by decree, to become effective upon ratification by the Cortes. It creates a Cuban parliament which, with the insular executive, can consider and vote upon all subjects affecting local order and interests, possessing unlimited powers save as to matters of state, war, and the navy, as to which the Governor-General acts by his own authority as the delegate of the Central Government. This parliament receives the oath of the Governor-General to preserve faithfully the liberties and privileges of the colony, and to it the colonial secretaries are responsible. It has the right to propose to the Central Government, through the Governor-General, modifications of the national charter, and to invite new projects of law or executive measures in the interest of the colony.

Besides its local powers, it is competent, first, to regulate electoral registration and procedure and prescribe the qualifications of electors and the manner of exercising suffrage; second, to organize courts of justice with native judges from members of the local bar; third, to frame the insular budget

both as to expenditures and revenues, without limitation of any kind, and to set apart the revenues to meet the Cuban share of the national budget, which latter will be voted by the national Cortes with the assistance of Cuban Senators and Deputies; fourth, to initiate or take part in the negotiations of the National Government for commercial treaties which may affect Cuban interests; fifth, to accept or reject commercial treaties which the National Government may have concluded without the participation of the Cuban Government; sixth, to frame the colonial tariff, acting in accord with the peninsular Government in scheduling articles of mutual commerce between the mother country and the colonies. Before introducing or voting upon a bill, the Cuban Government or the Chambers will lay the project before the Central Government and hear its opinion thereon, all the correspondence in such regard being made public. Finally, all conflicts of jurisdiction arising between the different municipal, provincial, and insular assemblies, or between the latter and the insular executive power, and which from their nature may not be referable to the Central Government for decision, shall be submitted to the courts.

That the Government of Sagasta has entered upon a course from which recession with honor is impossible can hardly be questioned; that in the few weeks it has existed it has made earnest of the sincerity of its professions is undeniable. I shall not impugn its sincerity, nor should impatience be suffered to embarrass it in the task it has undertaken. It is honestly due to Spain and to our friendly relations with Spain that she should be given a reasonable chance to realize her expectations and to prove the asserted efficacy of the new order of things to which she stands irrevocably committed. She has recalled the commander whose brutal orders inflamed the American mind and shocked the civilized world. She has modified the horrible order of concentration, and has undertaken to care for the helpless and permit those who desire to resume the cultivation of their fields to do so, and assures them of the protection of the Spanish Government in their lawful occupations. She has just released the "Competitor" prisoners heretofore sentenced to death and who have been the subject of repeated diplomatic correspondence during both this and the preceding administration.

Not a single American citizen is now in arrest or confinement in Cuba of whom this Government has any knowledge. The near future will demonstrate whether the indispensable condition of a righteous peace, just alike to the Cubans and to Spain as well as equitable to all our interests so intimately involved in the welfare of Cuba, is likely to be attained. If not, the exigency of further and other action by the United States will remain to be taken. When that time comes that action will be determined in the line of indisputable right and duty. It will be faced, without misgiving or hesitancy in the light of the obligation this Government owes to itself, to the people who have confided to it the protection of their interests and honor and to humanity.

Sure of the right, keeping free from all offense ourselves, actuated only by upright and patriotic considerations, moved neither by passion nor selfishness, the Government will continue its watchful care over the rights and property of American citizens, and will abate none of its efforts to bring about by peaceful agencies a peace which shall be honorable and enduring. If it shall hereafter appear to be a duty imposed by our obligations to ourselves, to civilization, and humanity to intervene with force, it shall be without fault on our part and only because the necessity for such action will be so clear

as to command the support and approval of the civilized world.

By a special message, dated the 16th day of June last, I laid before the Senate a treaty signed that day by the plenipotentiaries of the United States and of the republic of Hawaii, having for its purpose the incorporation of the Hawaiian Islands as an integral part of the United States and under its sovereignty. The Senate having removed the injunction of secrecy, although the treaty is still pending before that body, the subject may be properly referred to in this message, because the necessary action of the Congress is required to determine by legislation many details of the eventual union should the fact of annexation be accomplished, as I believe it should be.

While consistently disavowing from a very early period any aggressive policy of absorption in regard to the Hawaiian group, a long series of declarations through three quarters of a century has proclaimed the vital interest of the United States in the independent life of the islands and their intimate commercial dependence upon this country. At the same time, it has been repeatedly asserted that in no event could the entity of Hawaiian statehood cease by the passage of the islands under the domination or influence of another power than the United States. Under these circumstances, the logic of events required that annexation, heretofore offered but declined, should in the ripeness of time come about as the natural result of the strengthening ties that bind us to those islands, and be realized by the free will of the Hawaiian state.

That treaty was unanimously ratified without amendment by the Senate and President of the republic of Hawaii on the 10th of September last, and only awaits the favorable action of the American Senate to effect the complete absorption of the islands into the domain of the United States. What the conditions of such a union shall be, the political relation thereof to the United States, the character of the local administration, the quality and degree of the elective franchise of the inhabitants, the extension of the Federal laws to the territory or the enactment of special laws to fit the peculiar condition thereof, the regulation if need be of the labor system therein, are all matters which the treaty has wisely relegated to the Congress.

If the treaty is confirmed, as every consideration of dignity and honor requires, the wisdom of Congress will see to it that, avoiding abrupt assimilation of elements perhaps hardly yet fitted to share in the highest franchises of citizenship, and having due regard to the geographical conditions, the most just provisions for self-rule in local matters with the largest political liberties as an integral part of our nation will be accorded to the Hawaiians. No less is due to a people who, after nearly five years of demonstrated capacity to fulfill the obligations of self-governing statehood, come of their free will to merge their destinies in our body politic.

The questions which have arisen between Japan and Hawaii by reason of the treatment of Japanese laborers emigrating to the islands under the Hawaiian-Japanese convention of 1888 are in a satisfactory stage of settlement by negotiation. This Government has not been invited to mediate, and, on the other hand, has sought no intervention in that matter, further than to evince its kindest disposition toward such a speedy and direct adjustment by the two sovereign states in interest as shall comport with equity and honor. It is gratifying to learn that the apprehensions at first displayed on the part of Japan lest the cessation of Hawaii's national life through annexation might impair privileges to which Japan honorably laid claim have

given place to confidence in the uprightness of this Government and in the sincerity of its purpose to deal with all possible ulterior questions in the broadest spirit of friendliness.

As to the representation of this Government to Nicaragua, Salvador, and Costa Rica, I have concluded that Mr. William L. Merry, confirmed as minister of the United States to the states of Nicaragua, Salvador, and Costa Rica, shall proceed to San José, Costa Rica, and there temporarily establish the headquarters of the United States to those three states. I took this action for what I regarded as the paramount interests of this country. It was developed upon an investigation by the Secretary of State that the Government of Nicaragua, while not unwilling to receive Mr. Merry in his diplomatic quality, was unable to do so because of the compact concluded June 20, 1895, whereby that republic and those of Salvador and Honduras, forming what is known as the Greater Republic of Central America, had surrendered to the representative Diet thereof their right to receive and send diplomatic agents. The Diet was not willing to accept him because he was not accredited to that body. I could not accredit him to that body because the appropriation law of Congress did not permit it. Mr. Baker, the present minister at Managua, has been directed to present his letters of recall.

Mr. W. Godfrey Hunter has likewise been accredited to the governments of Guatemala and Honduras, the same as his predecessor. Guatemala is not a member of the Greater Republic of Central America, but Honduras is. Should this latter Government decline to receive him, he has been instructed to report this fact to his Government and await its further instructions.

A subject of large importance to our country and increasing appreciation on the part of the people is the completion of the great highway of trade between the Atlantic and Pacific known as the Nicaragua Canal. Its utility and value to American commerce is universally admitted. The commission appointed under date of July 24 last "to continue the surveys and examinations authorized by the act approved March 2, 1895," in regard to "the proper route, feasibility, and cost of construction of the Nicaragua Canal, with a view of making complete plans for the entire work of construction of such canal," is now employed in the undertaking. In the future I shall take occasion to transmit to Congress the report of this commission, making at the same time such further suggestions as may then seem advisable.

Under the provisions of the act of Congress approved March 3, 1897, for the promotion of an international agreement respecting bimetallicism, I appointed on the 14th day of April, 1897, Hon. Edward O. Wolcott, of Colorado, Hon. Adlai E. Stevenson, of Illinois, and Hon. Charles J. Paine, of Massachusetts, as special envoys to represent the United States. They have been diligent in their efforts to secure the concurrence and co-operation of European countries in the international settlement of the question, but up to this time have not been able to secure an agreement contemplated by their mission.

The gratifying action of our great sister republic of France in joining this country in the attempt to bring about an agreement among the principal commercial nations of Europe, whereby a fixed and relative value between gold and silver shall be secured, furnishes assurance that we are not alone among the larger nations of the world in realizing the international character of the problem and in the desire of reaching some wise and practical solution of it. The British Government has published a *résumé* of the steps taken jointly by the French

ambassador in London and the special envoys of the United States, with whom our ambassador at London actively co-operated in the presentation of this subject to her Majesty's Government. This will be laid before Congress.

Our special envoys have not made their final report, as further negotiations between the representatives of this Government and the governments of other countries are pending and in contemplation. They believe that doubts which have been raised in certain quarters respecting the position of maintaining the stability of the parity between the metals and kindred questions may yet be solved by further negotiations.

Meanwhile it gives me satisfaction to state that the special envoys have already demonstrated their ability and fitness to deal with the subject, and it is to be earnestly hoped that their labors may result in an international agreement which will bring about recognition of both gold and silver as money upon such terms and with such safeguards as will secure the use of both metals upon a basis which shall work no injustice to any class of our citizens.

In order to execute as early as possible the provisions of the third and fourth sections of the revenue act approved July 24, 1897, I appointed the Hon. John A. Kasson, of Iowa, a special commissioner plenipotentiary to undertake the requisite negotiations with foreign countries desiring to avail themselves of these provisions. The negotiations are now proceeding with several governments, both European and American. It is believed that by a careful exercise of the powers conferred by that act some grievances of our own and of other countries in our mutual trade relations may be either removed or largely alleviated, and that the volume of our commercial exchanges may be enlarged with advantage to both contracting parties.

Most desirable from every standpoint of national interest and patriotism is the effort to extend our foreign commerce. To this end our merchant marine should be improved and enlarged. We should do our full share of the carrying trade of the world. We do not do it now. We should be the laggard no longer. The inferiority of our merchant marine is justly humiliating to the national pride. The Government by every proper constitutional means should aid in making our ships familiar visitors at every commercial port of the world, thus opening up new and valuable markets to the surplus products of the farm and the factory.

The efforts which had been made during the two previous years by my predecessor to secure better protection to the fur seals in the north Pacific Ocean and Bering Sea were renewed at an early date by this Administration and have been pursued with earnestness. Upon my invitation the governments of Japan and Russia sent delegates to Washington and an international conference was held during the months of October and November last, wherein it was unanimously agreed that under the existing regulations this species of useful animals was threatened with extinction and that an international agreement of all the interested powers was necessary for their adequate protection.

The Government of Great Britain did not see proper to be represented at this conference, but subsequently sent to Washington, as delegates, the expert commissioners of Great Britain and Canada who had during the past two years visited the Pribilof Islands, and who met in conference similar commissioners on the part of the United States. The result of this conference was an agreement on important facts connected with the condition of the seal herd, heretofore in dispute, which should place beyond controversy the duty of the governments concerned to adopt measures without delay for the

preservation and restoration of the herd. Negotiations to this end are now in progress, the result of which I hope to be able to report to Congress at an early day.

International arbitration can not be omitted from the list of subjects claiming our consideration. Events have only served to strengthen the general views on this question expressed in my inaugural address. The best sentiment of the civilized world is moving toward the settlement of differences between nations without resorting to the horrors of war. Treaties embodying these humane principles on broad lines without in any way imperiling our interests or our honor shall have my constant encouragement.

The acceptance by this Government of the invitation of the republic of France to participate in the Universal Exposition of 1900 at Paris was immediately followed by the appointment of a special commissioner to represent the United States in the proposed exposition, with special reference to the securing of space for an adequate exhibit on behalf of the United States.

The special commissioner delayed his departure for Paris long enough to ascertain the probable demand for space by American exhibitors. His inquiries developed an almost unprecedented interest in the proposed exposition, and the information thus acquired enabled him to justify an application for a much larger allotment of space for the American section than had been reserved by the exposition authorities. The result was particularly gratifying, in view of the fact that the United States was one of the last countries to accept the invitation of France.

The reception accorded our special commissioner was most cordial, and he was given every reasonable assurance that the United States would receive a consideration commensurate with the proportions of our exhibit. The report of the special commissioner as to the magnitude and importance of the coming exposition and the great demand for space by American exhibitors supplies new arguments for a liberal and judicious appropriation by Congress to the end that an exhibit fairly representative of the industries and resources of our country may be made in an exposition which will illustrate the world's progress during the nineteenth century. That exposition is intended to be the most important and comprehensive of the long series of international exhibitions, of which our own at Chicago was a brilliant example, and it is desirable that the United States should make a worthy exhibit of American genius and skill and their unrivaled achievements in every branch of industry.

The present immediately effective force of the navy consists of 4 battle ships of the first class, 2 of the second, and 48 other vessels, ranging from armored cruisers to torpedo boats. There are under construction 5 battle ships of the first class, 16 torpedo boats, and 1 submarine boat. No provision has yet been made for the armor of 3 of the 5 battle ships, as it has been impossible to obtain it at the price fixed by Congress. It is of great importance that Congress provide this armor, as until then the ships are of no fighting value.

The present naval force, especially in view of its increase by the ships now under construction, while not as large as that of a few other powers, is a formidable force; its vessels are the very best of each type; and with the increase that should be made to it from time to time in the future, and careful attention to keeping it in a high state of efficiency and repair, it is well adapted to the necessities of the country.

The great increase of the navy which has taken place in recent years was justified by the require-

ments for national defense, and has received public approbation. The time has now arrived, however, when this increase, to which the country is committed, should, for a time, take the form of increased facilities commensurate with the increase of our naval vessels. It is an unfortunate fact that there is only one dock on the Pacific coast capable of docking our largest ships, and only one on the Atlantic coast, and that the latter has for the last six or seven months been under repair and therefore incapable of use. Immediate steps should be taken to provide three or four docks of this capacity on the Atlantic coast, at least one on the Pacific coast, and a floating dock in the Gulf. This is the recommendation of a very competent board appointed to investigate the subject. There should also be ample provision made for powder and projectiles and other munitions of war, and for an increased number of officers and enlisted men. Some additions are also necessary to our navy yards, for the repair and care of our larger number of vessels. As there are now on the stocks five battle ships of the largest class, which can not be completed for a year or two, I concur with the recommendation of the Secretary of the Navy for an appropriation authorizing the construction of one battle ship for the Pacific coast, where, at present, there is only one in commission and one under construction, while on the Atlantic coast there are three in commission and four under construction; and also that several torpedo boats be authorized in connection with our general system of coast defense.

The Territory of Alaska requires the prompt and early attention of Congress. The conditions now existing demand material changes in the laws relating to the Territory. The great influx of population during the past summer and fall and the prospect of a still larger immigration in the spring will not permit us to longer neglect the extension of civil authority within the Territory or postpone the establishment of a more thorough government.

A general system of public surveys has not yet been extended to Alaska, and all entries thus far made in that district are upon special surveys. The act of Congress extending to Alaska the mining laws of the United States contained the reservation that it should not be construed to put in force the general land laws of the country. By act approved March 3, 1891, authority was given for entry of lands for town-site purposes and also for the purchase of not exceeding 160 acres then or thereafter occupied for purposes of trade and manufacture. The purpose of Congress as thus far expressed has been that only such rights should apply to that Territory as should be specifically named.

It will be seen how much remains to be done for that vast and remote and yet promising portion of our country. Special authority was given to the President by the act of Congress approved July 24, 1897, to divide that Territory into two land districts and to designate the boundaries thereof and to appoint registers and receivers of said land offices, and the President was also authorized to appoint a surveyor general for the entire district. Pursuant to this authority, a surveyor general and receiver have been appointed, with offices at Sitka. If in the ensuing year the conditions justify it, the additional land district authorized by law will be established, with an office at some point in the Yukon valley. No appropriation, however, was made for this purpose, and that is now necessary to be done for the two land districts into which the Territory is to be divided.

I concur with the Secretary of War in his suggestions as to the necessity for a military force in the Territory of Alaska for the protection of persons and property. Already a small force, consisting of

twenty-five men, with two officers, under command of Lieut.-Col. Randall, of the Eighth Infantry, has been sent to St. Michael to establish a military post.

As it is to the interest of the Government to encourage the development and settlement of the country and its duty to follow up its citizens there with the benefits of legal machinery, I earnestly urge upon Congress the establishment of a system of government with such flexibility as will enable it to adjust itself to the future areas of greatest population.

The startling, though possibly exaggerated, reports from the Yukon river country of the probable shortage of food for the large number of people who are wintering there without the means of leaving the country are confirmed in such measure as to justify bringing the matter to the attention of Congress. Access to that country in winter can be had only by the passes from Dyea and vicinity, which is a most difficult and perhaps an impossible task. However, should these reports of the suffering of our fellow-citizens be further verified, every effort at any cost should be made to carry them relief.

For a number of years past it has been apparent that the conditions under which the Five Civilized Tribes were established in the Indian Territory under treaty provisions with the United States, with the right of self-government and the exclusion of all white persons from within their borders, have undergone so complete a change as to render the continuance of the system thus inaugurated practically impossible. The total number of the Five Civilized Tribes, as shown by the last census, is 45,494, and this number has not materially increased, while the white population is estimated at from 200,000 to 250,000, which by permission of the Indian government has settled in the Territory. The present area of the Indian Territory contains 25,694,564 acres, much of which is very fertile land. The United States citizens residing in the Territory, most of whom have gone there by invitation or with the consent of the tribal authorities, have made permanent homes for themselves. Numerous towns have been built in which from 500 to 5,000 white people now reside. Valuable residences and business houses have been erected in many of them. Large business enterprises are carried on in which vast sums of money are employed, and yet these people, who have invested their capital in the development of the productive resources of the country, are without title to the land they occupy and have no voice whatever in the government either of the nations or tribes. Thousands of their children, who were born in the Territory, are of school age, but the doors of the schools of the nations are shut against them, and what education they get is by private contribution. No provision for the protection of the life or property of these white citizens is made by the tribal governments and courts.

The Secretary of the Interior reports that leading Indians have absorbed great tracts of land to the exclusion of the common people, and government by an Indian aristocracy has been practically established, to the detriment of the people. It has been found impossible for the United States to keep its citizens out of the Territory and the executory conditions contained in the treaties with these nations have for the most part become impossible of execution. Nor has it been possible for the tribal governments to secure to each individual Indian his full enjoyment in common with other Indians of the common property of the nations. Friends of the Indians have long believed that the best interests of the Indians of the Five Civilized Tribes would be found in American citizenship, with all

the rights and privileges which belong to that condition.

By section 16 of the act of March 3, 1893, the President was authorized to appoint three commissioners to enter into negotiations with the Cherokee, Choctaw, Chickasaw, Muscogee (or Creek), and Seminole nations, commonly known as the Five Civilized Tribes in the Indian Territory. Briefly, the purposes of the negotiations were to be: The extinguishment of tribal titles to any lands within that Territory now held by any and all such nations or tribes, either by cession of the same or some part thereof to the United States, or by allotment and division of the same in severalty among the Indians of such nations or tribes, respectively, as may be entitled to the same, or by such other method as may be agreed upon between the several nations and tribes aforesaid, or each of them with the United States, with a view to such an adjustment upon the basis of justice and equity as may, with the consent of the said nations of Indians so far as may be necessary, be requisite and suitable to enable the ultimate creation of a State or States of the Union which shall embrace the lands within said Indian Territory.

The commission met much opposition from the beginning. The Indians were very slow to act and those in control manifested a decided disinclination to meet with favor the propositions submitted to them. A little more than three years after this organization the commission effected an agreement with the Choctaw nation alone. The Chickasaws, however, refused to agree to its terms, and as they have a common interest with the Choctaws in the lands of said nations, the agreement with the latter nation could have no effect without the consent of the former. On April 23, 1897, the commission effected an agreement with both tribes—the Choctaws and Chickasaws. This agreement, it is understood, has been ratified by the constituted authorities of the respective tribes or nations parties thereto, and only requires ratification by Congress to make it binding.

On the 27th of September, 1897, an agreement was effected with the Creek Nation, but it is understood that the national council of said nation has refused to ratify the same. Negotiations are yet to be had with the Cherokees, the most populous of the Five Civilized Tribes, and with the Seminoles, the smallest in point of numbers and territory.

The provision in the Indian appropriation act, approved June 10, 1896, makes it the duty of the commission to investigate and determine the rights of applicants for citizenship in the Five Civilized Tribes, and to make complete census rolls of the citizens of said tribes. The commission is at present engaged in this work among the Creeks and has made appointments for taking the census of these people up to and including the 30th of the present month.

Should the agreement between the Choctaws and Chickasaws be ratified by Congress and should the other tribes fail to make an agreement with the commission, then it will be necessary that some legislation shall be had by Congress which, while just and honorable to the Indians, shall be equitable to the white people who have settled upon these lands by invitation of the tribal nations.

Hon. Henry L. Dawes, chairman of the commission, in a letter to the Secretary of the Interior, under date of Oct. 11, 1897, says: "Individual ownership is in their (the commission's) opinion absolutely essential to any permanent improvement in present conditions, and the lack of it is the root of nearly all the evils which so grievously afflict these people. Allotment by agreement is the only possible method, unless the United States courts

are clothed with the authority to apportion the lands among the citizen Indians for whose use it was originally granted."

I concur with the Secretary of the Interior that there can be no cure for the evils engendered by the perversion of these great trusts excepting by their resumption by the government which created them.

The recent prevalence of yellow fever in a number of cities and towns throughout the South has resulted in much disturbance of commerce and demonstrated the necessity of such amendments to our quarantine laws as will make the regulations of the national quarantine authorities paramount. The Secretary of the Treasury in the portion of his report relating to the operation of the Marine-Hospital Service calls attention to the defects in the present quarantine laws, and recommends amendments thereto which will give the Treasury Department the requisite authority to prevent the invasion of epidemic diseases from foreign countries and, in times of emergency like that of the past summer, will add to the efficiency of the sanitary measures for the protection of the people and at the same time prevent unnecessary restriction of commerce. I concur in his recommendation.

In further effort to prevent the invasion of the United States by yellow fever the importance of the discovery of the exact cause of the disease, which up to the present time has been undetermined, is obvious, and to this end a systematic bacteriological investigation should be made. I therefore recommend that Congress authorize the appointment of a commission by the President, to consist of four expert bacteriologists, one to be selected from the medical officers of the Marine-Hospital Service, one to be appointed from civil life, one to be detailed from the medical officers of the army, and one from the medical officers of the navy.

The Union Pacific Railway, main line, was sold under the decree of the United States court for the district of Nebraska on the 1st and 2d of November of this year. The amount due the Government consisted of the principal of the subsidy bonds, \$27,236,512, and the accrued interest thereon, \$31,211,711.75, making the total indebtedness \$58,448,223.75. The bid at the sale covered the first-mortgage lien and the entire mortgage claim of the Government, principal and interest.

The sale of the subsidized portion of the Kansas Pacific line, upon which the Government holds a second-mortgage lien, has been postponed at the instance of the Government to Dec. 16, 1897. The debt of this division of the Union Pacific Railway to the Government on Nov. 1, 1897, was the principal of the subsidy bonds, \$6,303,000, and the unpaid and accrued interest thereon, \$6,626,690.33, making a total of \$12,929,690.33.

The sale of this road was originally advertised for Nov. 4, but for the purpose of securing the utmost public notice of the event it was postponed until Dec. 16, and a second advertisement of the sale was made. By the decree of the court the upset price on the sale of the Kansas Pacific will yield to the Government the sum of \$2,500,000 over all prior liens, costs, and charges. If no other or better bid is made, this sum is all that the Government will receive on its claim of nearly \$13,000,000. The Government has no information as to whether there will be other bidders or a better bid than the minimum amount herein stated. The question presented therefore is, whether the Government shall, under the authority given it by the act of March 3, 1887, purchase or redeem the road in the event that a bid is not made by private parties covering the entire Government claim. To qualify

the Government to bid at the sales will require a deposit of \$900,000, as follows: In the Government cause \$500,000 and in each of the first-mortgage causes \$200,000, and in the latter the deposit must be in cash. Payments at the sale are as follow: Upon the acceptance of the bid a sum which, with the amount already deposited, shall equal 15 per cent. of the bid; the balance in installments of 25 per cent. thirty, forty, and fifty days after the confirmation of the sale. The lien on the Kansas Pacific prior to that of the Government on the 30th July, 1897, principal and interest, amounted to \$7,281,048.11. The Government, therefore, should it become the highest bidder, will have to pay the amount of the first-mortgage lien.

I believe that under the act of 1887 it has the authority to do this, and in absence of any action by Congress I shall direct the Secretary of the Treasury to make the necessary deposit as required by the court's decree to qualify as a bidder and to bid at the sale a sum which will at least equal the principal of the debt due to the Government; but suggest in order to remove all controversy that an amendment of the law be immediately passed explicitly giving such powers and appropriating in general terms whatever sum is sufficient therefor.

In so important a matter as the Government becoming the possible owner of railroad property which it perforce must conduct and operate, I feel constrained to lay before Congress these facts for its consideration and action before the consummation of the sale. It is clear to my mind that the Government should not permit the property to be sold at a price which will yield less than one half of the principal of its debt and less than one fifth of its entire debt, principal and interest. But whether the Government, rather than accept less than its claim, should become a bidder, and thereby the owner of the property, I submit to the Congress for action.

The library building provided for by the act of Congress approved April 15, 1886, has been completed and opened to the public. It should be a matter of congratulation that through the foresight and munificence of Congress the nation possesses this noble treasure-house of knowledge. It is earnestly to be hoped that, having done so much toward the cause of education, Congress will continue to develop the library in every phase of research, to the end that it may be not only one of the most magnificent, but among the richest and most useful libraries in the world.

The important branch of our Government known as the civil service, the practical improvement of which has long been a subject of earnest discussion, has of late years received increased legislative and Executive approval. During the past few months the service has been placed upon a still firmer basis of business methods and personal merit. While the right of our veteran soldiers to reinstatement in deserving cases has been asserted, dismissals for merely political reasons have been carefully guarded against, the examinations for admittance to the service enlarged and at the same time rendered less technical and more practical, and a distinct advance has been made by giving a hearing before dismissal upon all cases where incompetency is charged or demand made for the removal of officials in any of the departments. This order has been made to give to the accused his right to be heard, but without in any way impairing the power of removal, which should always be exercised in cases of inefficiency and incompetency, and which is one of the vital safeguards of the civil-service-reform system, preventing stagnation and deadwood, and keeping every employee keenly alive to the fact that the security of his tenure depends not on

favor, but on his own tested and carefully watched record of service.

Much of course still remains to be accomplished before the system can be made reasonably perfect for our needs. There are places now in the classified service which ought to be exempted, and others not classified may properly be included. I shall not hesitate to exempt cases which I think have been improperly included in the classified service, or include those which in my judgment will best promote the public service. The system has the approval of the people, and it will be my endeavor to uphold and extend it.

I am forced by the length of this message to omit many important references to affairs of the Government with which Congress will have to deal at the present session. They are fully discussed in the departmental reports, to all of which I invite your earnest attention.

The estimates of the expenses of the Government by the several departments will, I am sure, have your careful scrutiny. While the Congress may not find it an easy task to reduce the expenses of the Government, it should not encourage their increase. These expenses will, in my judgment, admit of a decrease in many branches of the Government without injury to the public service. It is a commanding duty to keep the appropriations within the receipts of the Government, and thus avoid a deficit.

WILLIAM MCKINLEY.

EXECUTIVE MANSION, Dec. 6, 1897.

Cuba.—The condition of affairs in Cuba was the main topic of interest in Congress from the very beginning of the session, and various resolutions were proposed and considered looking toward American intervention, but the feeling throughout the country in favor of interference became irresistible after the destruction of the battle ship "Maine," in Havana harbor, on the night of Feb. 15, 1898, and the impatient eagerness of Congress kept pace with popular sentiment. Prompt action was taken in every appropriate way to recover the dead, relieve the suffering, and investigate the causes of the disaster. A court of inquiry made an investigation of the destruction of the ship, and reported on March 21. The President transmitted the report to Congress, March 28, with the following message:

To the Congress of the United States:

For some time prior to the visit of the "Maine" to Havana harbor our consular representatives pointed out the advantages to flow from the visit of national ships to the Cuban waters, in accustoming the people to the presence of our flag as the symbol of good will, and of our ships in the fulfillment of the mission of protection to American interests, even though no immediate need therefor might exist.

Accordingly on the 24th of January last, after conference with the Spanish minister, in which the renewal of visits of our war vessels to Spanish waters was discussed and accepted, the peninsular authorities at Madrid and Havana were advised of the purpose of this Government to resume friendly naval visits at Cuban ports, and that in that view the "Maine" would forthwith call at the port of Havana.

This announcement was received by the Spanish Government with appreciation of the friendly character of the visit of the "Maine," and with notification of intention to return the courtesy by sending Spanish ships to the principal ports of the United States. Meanwhile the "Maine" entered the port of Havana on the 25th of January, her arrival being marked with no special incident besides the exchange of customary salutes and ceremonial visits.

The "Maine" continued in the harbor of Havana during the three weeks following her arrival. No appreciable excitement attended her stay; on the contrary, a feeling of relief and confidence followed the resumption of the long-interrupted friendly intercourse. So noticeable was this immediate effect of her visit that the consul general strongly urged that the presence of our ships in Cuban waters should be kept up by retaining the "Maine" at Havana or, in the event of her recall, by sending another vessel there to take her place.

At forty minutes past nine in the evening of the 15th of February the "Maine" was destroyed by an explosion, by which the entire forward part of the ship was utterly wrecked. In this catastrophe 2 officers and 264 of her crew perished, those who were not killed outright by her explosion being penned between decks by the tangle of wreckage and drowned by the immediate sinking of the hull.

Prompt assistance was rendered by the neighboring vessels anchored in the harbor, aid being especially given by the boats of the Spanish cruiser "Alfonso XII" and the Ward Line steamer "City of Washington," which lay not far distant. The wounded were generously cared for by the authorities of Havana, the hospitals being freely opened to them, while the earliest recovered bodies of the dead were interred by the municipality in a public cemetery in the city. Tributes of grief and sympathy were offered from all official quarters of the island.

The appalling calamity fell upon the people of our country with crushing force, and for a brief time an intense excitement prevailed, which in a community less just and self-controlled than ours might have led to hasty acts of blind resentment. This spirit, however, soon gave way to the calmer processes of reason and to the resolve to investigate the facts and await material proof before forming a judgment as to the cause, the responsibility, and, if the facts warranted, the remedy due. This course necessarily recommended itself from the outset to the Executive, for only in the light of a dispassionately ascertained certainty could it determine the nature and measure of its full duty in the matter.

The usual procedure was followed, as in all cases of casualty or disaster to national vessels of any maritime state. A naval court of inquiry was at once organized, composed of officers well qualified by rank and practical experience to discharge the onerous duty imposed upon them. Aided by a strong force of wreckers and divers, the court proceeded to make a thorough investigation on the spot, employing every available means for the impartial and exact determination of the causes of the explosion. Its operations have been conducted with the utmost deliberation and judgment, and while independently pursued no attainable source of information was neglected, and the fullest opportunity was allowed for a simultaneous investigation by the Spanish authorities.

The finding of the court of inquiry was reached, after twenty-three days of continuous labor, on the 21st of March instant, and, having been approved on the 22d by the commander in chief of the United States naval force on the North Atlantic Station, was transmitted to the Executive.

It is herewith laid before the Congress, together with the voluminous testimony taken before the court.

Its purport is, in brief, as follows:

When the "Maine" arrived at Havana she was conducted by the regular Government pilot to buoy No. 4, to which she was moored in from 5½ to 6 fathoms of water.

The state of discipline on board and the condi-

tion of her magazines, boilers, coal bunkers, and storage compartments are passed in review, with the conclusion that excellent order prevailed and that no indication of any cause for an internal explosion existed in any quarter.

At eight o'clock in the evening of Feb. 15 everything had been reported secure, and all was quiet.

At forty minutes past nine o'clock the vessel was suddenly destroyed.

There were two distinct explosions, with a brief interval between them.

The first lifted the forward part of the ship very perceptibly. The second, which was more open, prolonged, and of greater volume, is attributed by the court to the partial explosion of two or more of the forward magazines.

The evidence of the divers establishes that the after part of the ship was practically intact and sank in that condition a very few moments after the explosion. The forward part was completely demolished.

Upon the evidence of a concurrent external cause the finding of the court is as follows:

"At frame 17 the outer shell of the ship, from a point 11½ feet from the middle line of the ship and 6 feet above the keel when in its normal position, has been forced up so as to be now about 4 feet above the surface of the water, therefore about 34 feet above where it would be had the ship sunk uninjured.

"The outside bottom plating is bent into a reversed V shape (A), the after wing of which, about 15 feet broad and 82 feet in length (from frame 17 to frame 25), is doubled back upon itself against the continuation of the same plating, extending forward.

"At frame 18 the vertical keel is broken in two and the flat keel bent into an angle similar to the angle formed by the outside bottom plates. This break is now about 6 feet below the surface of the water and about 30 feet above its normal position.

"In the opinion of the court this effect could have been produced only by the explosion of a mine situated under the bottom of a ship at about frame 18 and somewhat on the port side of the ship."

The conclusions of the court are:

That the loss of the "Maine" was not in any respect due to fault or negligence on the part of any of the officers or members of her crew.

That the ship was destroyed by the explosion of a submarine mine, which caused the partial explosion of two or more of her forward magazines; and

That no evidence has been obtainable fixing the responsibility for the destruction of the "Maine" upon any person or persons.

I have directed that the finding of the court of inquiry and the views of this Government thereon be communicated to the Government of her Majesty the Queen Regent, and I do not permit myself to doubt that the sense of justice of the Spanish nation will dictate a course of action suggested by honor and the friendly relations of the two governments.

It will be the duty of the Executive to advise the Congress of the result, and in the meantime deliberate consideration is invoked.

WILLIAM MCKINLEY.

EXECUTIVE MANSION, March 23, 1898.

No course of action was recommended by the President, and there was no disposition to consider the destruction of the "Maine" as more than an incident in the great issue of intervention in Cuba; but it was an incident of overmastering influence in hastening national decision. April 11, the President sent to Congress the following message giving in detail an account of his negotiations for peace.

enumerating the evil effects of the war in Cuba, setting forth the duty of interference, and asking for power to compel the restoration of order and the establishment of good government:

To the Congress of the United States:

Obedient to that precept of the Constitution which commands the President to give from time to time to the Congress information of the state of the Union and to recommend to their consideration such measures as he shall judge necessary and expedient, it becomes my duty to now address your body with regard to the grave crisis that has arisen in the relations of the United States to Spain by reason of the warfare that for more than three years has raged in the neighboring island of Cuba.

I do so because of the intimate connection of the Cuban question with the state of our own Union and the grave relation the course which it is now incumbent upon the nation to adopt must needs bear to the traditional policy of our Government if it is to accord with the precepts laid down by the founders of the republic and religiously observed by succeeding administrations to the present day.

The present revolution is but the successor of other similar insurrections which have occurred in Cuba against the dominion of Spain, extending over a period of nearly half a century, each of which, during its progress, has subjected the United States to great effort and expense in enforcing its neutrality laws, caused enormous losses to American trade and commerce, caused irritation, annoyance, and disturbance among our citizens, and, by the exercise of cruel, barbarous, and uncivilized practices of warfare, shocked the sensibilities and offended the humane sympathies of our people.

Since the present revolution began, in February, 1895, this country has seen the fertile domain at our threshold ravaged by fire and sword in the course of a struggle unequaled in the history of the island and rarely paralleled as to the numbers of the combatants and the bitterness of the contest by any revolution of modern times where a dependent people striving to be free have been opposed by the power of the sovereign state.

Our people have beheld a once prosperous community reduced to comparative want, its lucrative commerce virtually paralyzed, its exceptional productiveness diminished, its fields laid waste, its mills in ruins, and its people perishing by tens of thousands from hunger and destitution. We have found ourselves constrained, in the observance of that strict neutrality which our laws enjoin, and which the law of nations commands, to police our own waters and watch our own seaports in prevention of any unlawful act in aid of the Cubans.

Our trade has suffered; the capital invested by our citizens in Cuba has been largely lost, and the temper and forbearance of our people have been so sorely tried as to beget a perilous unrest among our own citizens which has inevitably found its expression from time to time in the national Legislature, so that issues wholly external to our own body politic engross attention and stand in the way of that close devotion to domestic advancement that becomes a self-contained commonwealth whose primal maxim has been the avoidance of all foreign entanglements. All this must needs awaken, and has, indeed, aroused the utmost concern on the part of this Government, as well during my predecessor's term as in my own.

In April, 1896, the evils from which our country suffered through the Cuban war became so onerous that my predecessor made an effort to bring about a peace through the mediation of this Government in any way that might tend to an honorable adjustment of the contest between Spain and her revolted colony, on the basis of some effective scheme of self-

government for Cuba under the flag and sovereignty of Spain. It failed through the refusal of the Spanish Government then in power to consider any form of mediation or, indeed, any plan of settlement which did not begin with the actual submission of the insurgents to the mother country, and then only on such terms as Spain herself might see fit to grant. The war continued unabated. The resistance of the insurgents was in no wise diminished.

The efforts of Spain were increased, both by the dispatch of fresh levies to Cuba and by the addition to the horrors of the strife of a new and inhuman phase happily unprecedented in the modern history of civilized Christian peoples. The policy of devastation and concentration, inaugurated by the captain general's *bando* of Oct. 21, 1896, in the province of Pinar del Rio was thence extended to embrace all of the island to which the power of the Spanish arms was able to reach by occupation or by military operations. The peasantry, including all dwelling in the open agricultural interior, were driven into the garrison towns or isolated places held by the troops.

The raising and movement of provisions of all kinds were interdicted. The fields were laid waste, dwellings unroofed and fired, mills destroyed, and, in short, everything that could desolate the land and render it unfit for human habitation or support was commanded by one or the other of the contending parties and executed by all the powers at their disposal.

By the time the present Administration took office a year ago, reconcentration, so called, had been made effective over the better part of the four central and western provinces—Santa Clara, Matanzas, Havana, and Pinar del Rio.

The agricultural population to the estimated number of 800,000 or more was herded within the towns and their immediate vicinage, deprived of the means of support, rendered destitute of shelter, left poorly clad, and exposed to the most unsanitary conditions. As the scarcity of food increased with the devastation of the depopulated areas of production, destitution and want became misery and starvation. Month by month the death rate increased in an alarming ratio. By March, 1897, according to conservative estimates from official Spanish sources, the mortality among the *reconcentrados*, from starvation and the diseases thereto incident, exceeded 50 per cent. of their total number.

No practical relief was accorded to the destitute. The overburdened towns, already suffering from the general dearth, could give no aid. So-called "zones of cultivation" established within the immediate areas of effective military control about the cities and fortified camps proved illusory as a remedy for the suffering. The unfortunates, being for the most part women and children, with aged and helpless men, enfeebled by disease and hunger, could not have tilled the soil without tools, seed, or shelter for their own support or for the supply of the cities. Reconcentration, adopted avowedly as a war measure in order to cut off the resources of the insurgents, worked its predestined result. As I said in my message of last December, it was not civilized warfare; it was extermination. The only peace it could beget was that of the wilderness and the grave.

Meanwhile the military situation in the island had undergone a noticeable change. The extraordinary activity that characterized the second year of the war, when the insurgents invaded even the hitherto unharmed fields of Pinar del Rio and carried havoc and destruction up to the walls of the city of Havana itself, had relapsed into a dogged struggle in the central and eastern provinces. The

Spanish arms regained a measure of control in Pinar del Rio and parts of Havana, but, under the existing conditions of the rural country, without immediate improvement of their productive situation. Even thus partially restricted, the revolutionists held their own, and their conquest and submission, put forward by Spain as the essential and sole basis of peace, seemed as far distant as at the outset.

In this state of affairs my Administration found itself confronted with the grave problem of its duty. My message of last December reviewed the situation and narrated the steps taken with a view to relieving its acuteness and opening the way to some form of honorable settlement. The assassination of the prime minister, Canovas, led to a change of government in Spain. The former administration, pledged to subjugation without concession, gave place to that of a more liberal party, committed long in advance to a policy of reform involving the wider principle of home rule for Cuba and Puerto Rico.

The overtures of this Government, made through its new envoy, Gen. Woodford, and looking to an immediate and effective amelioration of the condition of the island, although not accepted to the extent of admitted mediation in any shape, were met by assurances that home rule in an advanced phase would be forthwith offered to Cuba, without waiting for the war to end, and that more humane methods should thenceforth prevail in the conduct of hostilities. Coincidentally with these declarations the new Government of Spain continued and completed the policy already begun by its predecessor, of testifying friendly regard for this nation by releasing American citizens held under one charge or another connected with the insurrection, so that by the end of November not a single person entitled in any way to our national protection remained in a Spanish prison.

While these negotiations were in progress the increasing destitution of the unfortunate *reconcentrados* and the alarming mortality among them claimed earnest attention. The success which had attended the limited measure of relief extended to the suffering American citizens among them by the judicious expenditure through the consular agencies of the money appropriated expressly for their succor by the joint resolution approved May 24, 1897, prompted the humane extension of a similar scheme of aid to the great body of sufferers. A suggestion to this end was acquiesced in by the Spanish authorities. On the 24th of December last I caused to be issued an appeal to the American people inviting contributions in money or in kind for the succor of the starving sufferers in Cuba, following this on the 8th of January by a similar public announcement of the formation of a central Cuban relief committee, with headquarters in New York city, composed of 3 members representing the American National Red Cross and the religious and business elements of the community.

The efforts of that committee have been untiring and have accomplished much. Arrangements for free transportation to Cuba have greatly aided the charitable work. The president of the American Red Cross and representatives of other contributory organizations have generously visited Cuba and co-operated with the consul general and the local authorities to make effective distribution of the relief collected through the efforts of the central committee. Nearly \$200,000 in money and supplies has already reached the sufferers and more is forthcoming. The supplies are admitted duty free, and transportation to the interior has been arranged, so that the relief, at first necessarily confined to Havana and the larger cities, is now extended through

most, if not all, of the towns where suffering exists.

Thousands of lives have already been saved. The necessity for a change in the condition of the *reconcentrados* is recognized by the Spanish Government. Within a few days past the orders of General Weyler have been revoked; the *reconcentrados*, it is said, are to be permitted to return to their homes and aided to resume the self-supporting pursuits of peace. Public works have been ordered to give them employment, and a sum of \$600,000 has been appropriated for their relief.

The war in Cuba is of such a nature that short of subjugation or extermination a final military victory for either side seems impracticable. The alternative lies in the physical exhaustion of the one or the other party, or perhaps of both—a condition which in effect ended the ten years' war by the truce of Zanjón. The prospect of such a protraction and conclusion of the present strife is a contingency hardly to be contemplated with equanimity by the civilized world and least of all by the United States, affected and injured as we are, deeply and intimately, by its very existence.

Realizing this, it appeared to be my duty, in a spirit of true friendliness, no less to Spain than to the Cubans, who have so much to lose by the prolongation of the struggle, to seek to bring about an immediate termination of the war. To this end I submitted, on the 27th ultimo, as a result of much representation and correspondence, through the United States minister at Madrid, propositions to the Spanish Government looking to an armistice until Oct. 1 for the negotiation of peace with the good offices of the President.

In addition, I asked the immediate revocation of the order of reconcentration, so as to permit the people to return to their farms and the needy to be relieved with provisions and supplies from the United States, co-operating with the Spanish authorities, so as to afford full relief.

The reply of the Spanish Cabinet was received on the night of the 31st ultimo. It offered, as the means to bring about peace in Cuba, to confide the preparation thereof to the insular Parliament, inasmuch as the concurrence of that body would be necessary to reach a final result, it being, however, understood that the powers reserved by the constitution to the Central Government are not lessened or diminished. As the Cuban Parliament does not meet until the 4th of May next, the Spanish Government would not object, for its part, to accept at once a suspension of hostilities if asked for by the insurgents from the general in chief, to whom it would pertain, in such case, to determine the duration and conditions of the armistice.

The propositions submitted by Gen. Woodford and the reply of the Spanish Government were both in the form of brief memoranda, the texts of which are before me, and are substantially in the language above given. The function of the Cuban Parliament in the matter of "preparing" peace and the manner of its doing so are not expressed in the Spanish memorandum; but from Gen. Woodford's explanatory reports of preliminary discussions preceding the final conference it is understood that the Spanish Government stands ready to give the insular Congress full powers to settle the terms of peace with the insurgents—whether by direct negotiation or indirectly by means of legislation does not appear.

With this last overture in the direction of immediate peace, and its disappointing reception by Spain, the Executive is brought to the end of his effort.

In my annual message of December last I said :
"Of the untried measures there remain only :

Recognition of the insurgents as belligerents; recognition of the independence of Cuba; neutral intervention to end the war by imposing a rational compromise between the contestants, and intervention in favor of one or the other party. I speak not of forcible annexation, for that can not be thought of. That, by our code of morality, would be criminal aggression."

Thereupon I reviewed these alternatives, in the light of President Grant's measured words, uttered in 1875, when after seven years of sanguinary, destructive, and cruel hostilities in Cuba he reached the conclusion that the recognition of the independence of Cuba was impracticable and indefensible; and that the recognition of belligerence was not warranted by the facts according to the tests of public law. I commented especially upon the latter aspect of the question, pointing out the inconveniences and positive dangers of a recognition of belligerence which, while adding to the already onerous burdens of neutrality within our own jurisdiction, could not in any way extend our influence or effective offices in the territory of hostilities.

Nothing has since occurred to change my view in this regard; and I recognize as fully now as then that the issuance of a proclamation of neutrality, by which process the so-called recognition of belligerents is published, could, of itself and unattended by other action, accomplish nothing toward the one end for which we labor—the instant pacification of Cuba and the cessation of the misery that afflicts the island.

Turning to the question of recognizing at this time the independence of the present insurgent government in Cuba, we find safe precedents in our history from an early day. They are well summed up in President Jackson's message to Congress, Dec. 21, 1836, on the subject of the recognition of the independence of Texas. He said:

"In all the contests that have arisen out of the revolutions of France, out of the disputes relating to the Crowns of Portugal and Spain, out of the separation of the American possessions of both from the European governments, and out of the numerous and constantly occurring struggles for dominion in Spanish America, so wisely consistent with our just principles has been the action of our Government that we have, under the most critical circumstances, avoided all censure, and encountered no other evil than that produced by a transient estrangement of good will in those against whom we have been by force of evidence compelled to decide.

"It has thus made known to the world that the uniform policy and practice of the United States is to avoid all interference in disputes which merely relate to the internal government of other nations, and eventually to recognize the authority of the prevailing party without reference to our particular interests and views or to the merits of the original controversy.

"... But on this, as on every other trying occasion, safety is to be found in a rigid adherence to principle.

"In the contest between Spain and the revolted colonies we stood aloof, and waited not only until the ability of the new states to protect themselves was fully established, but until the danger of their being again subjugated had entirely passed away. Then, and not until then, were they recognized.

"Such was our course in regard to Mexico herself. . . . It is true that with regard to Texas the civil authority of Mexico has been expelled, its invading army defeated, the chief of the republic himself captured, and all present power to control the newly organized government of Texas annihilated within its confines; but, on the other hand,

there is, in appearance at least, an immense disparity of physical force on the side of Texas. The Mexican republic, under another executive, is rallying its forces under a new leader and menacing a fresh invasion to recover its lost dominion.

"Upon the issue of this threatened invasion the independence of Texas may be considered as suspended; and were there nothing peculiar in the relative situation of the United States and Texas, our acknowledgment of its independence at such a crisis could scarcely be regarded as consistent with that prudent reserve with which we have hitherto held ourselves bound to treat all similar questions."

Thereupon Andrew Jackson proceeded to consider the risk that there might be imputed to the United States motives of selfish interest in view of the former claim on our part to the Territory of Texas, and of the avowed purpose of the Texans in seeking recognition of independence as an incident to the incorporation of Texas in the Union, concluding thus:

"Prudence, therefore, seems to dictate that we should still stand aloof and maintain our present attitude, if not until Mexico itself or one of the great foreign powers shall recognize the independence of the new government, at least until the lapse of time or the course of events have proved beyond cavil or dispute the ability of the people of that country to maintain their separate sovereignty and to uphold the government constituted by them. Neither of the contending parties can justly complain of this course. By pursuing it we are but carrying out the long-established policy of our Government, a policy which has secured to us respect and influence abroad and inspired confidence at home."

These are the words of the resolute and patriotic Jackson. They are evidence that the United States, in addition to the test imposed by public law as the condition of the recognition of independence by a neutral state (to wit, that the revolted state shall "constitute in fact a body politic, having a government in substance as well as in name, possessed of the elements of stability," and forming *de facto*, "if left to itself, a state among the nations, reasonably capable of discharging the duties of a state"), has imposed for its own governance in dealing with cases like these the further condition that recognition of independent statehood is not due to a revolted dependency until the danger of its being again subjugated by the parent state has entirely passed away.

This extreme test was, in fact, applied in the case of Texas. The Congress to whom President Jackson referred the question as one "probably leading to war," and therefore a proper subject for "a previous understanding with that body by whom war can alone be declared and by whom all the provisions for sustaining its perils must be furnished," left the matter of the recognition of Texas to the discretion of the Executive, providing merely for the sending of a diplomatic agent when the President should be satisfied that the republic of Texas had become "an independent state." It was so recognized by President Van Buren, who commissioned a *chargé d'affaires* March 7, 1837, after Mexico had abandoned an attempt to reconquer the Texan territory, and when there was at the time no *bona fide* contest going on between the insurgent province and its former sovereign.

I said in my message of December last, "It is to be seriously considered whether the Cuban insurrection possesses beyond dispute the attributes of statehood which alone can demand the recognition of belligerency in its favor." The same requirement must certainly be no less seriously considered when the graver issue of recognizing independence

is in question, for no less positive test can be applied to the greater act than to the lesser; while, on the other hand, the influences and consequences of the struggle upon the internal policy of the recognizing state, which form important factors when the recognition of belligerency is concerned, are secondary, if not rightly eliminable, factors when the real question is whether the community claiming recognition is or is not independent beyond peradventure.

Nor from the standpoint of expediency do I think it would be wise or prudent for this Government to recognize at the present time the independence of the so-called Cuban republic. Such recognition is not necessary in order to enable the United States to intervene and pacify the island. To commit this country now to the recognition of any particular government in Cuba might subject us to embarrassing conditions of international obligation toward the organization so recognized. In case of intervention our conduct would be subject to the approval or disapproval of such government. We would be required to submit to its direction and to assume to it the mere relation of a friendly ally.

When it shall appear hereafter that there is within the island a government capable of performing the duties and discharging the functions of a separate nation, and having, as a matter of fact, the proper forms and attributes of nationality, such government can be promptly and readily recognized, and the relations and interests of the United States with such nation adjusted.

There remain the alternative forms of intervention to end the war, either as an impartial neutral by imposing a rational compromise between the contestants, or as the active ally of the one party or the other.

As to the first, it is not to be forgotten that during the last few months the relation of the United States has virtually been one of friendly intervention in many ways, each not of itself conclusive, but all tending to the exertion of a potential influence toward an ultimate pacific result, just and honorable to all interests concerned. The spirit of all our acts hitherto has been an earnest, unselfish desire for peace and prosperity in Cuba, untarnished by differences between us and Spain, and unstained by the blood of American citizens.

The forcible intervention of the United States as a neutral to stop the war, according to the large dictates of humanity and following many historical precedents where neighboring states have interfered to check the hopeless sacrifices of life by internecine conflicts beyond their borders, is justifiable on rational grounds. It involves, however, hostile constraint upon both the parties to the contest as well to enforce a truce as to guide the eventual settlement.

The grounds for such intervention may be briefly summarized as follows:

First. In the cause of humanity and to put an end to the barbarities, bloodshed, starvation, and horrible miseries now existing there, and which the parties to the conflict are either unable or unwilling to stop or mitigate. It is no answer to say this is all in another country, belonging to another nation, and is therefore none of our business. It is specially our duty, for it is right at our door.

Second. We owe it to our citizens in Cuba to afford them that protection and indemnity for life and property which no government there can or will afford, and to that end to terminate the conditions that deprive them of legal protection.

Third. The right to intervene may be justified by the very serious injury to the commerce, trade, and business of our people and by the wanton de-

struction of property and devastation of the island.

Fourth, and which is of the utmost importance. The present condition of affairs in Cuba is a constant menace to our peace, and entails upon this Government an enormous expense. With such a conflict waged for years in an island so near us and with which our people have such trade and business relations—when the lives and liberty of our citizens are in constant danger and their property destroyed and themselves ruined—where our trading vessels are liable to seizure and are seized at our very door by war ships of a foreign nation, the expeditions of filibustering that we are powerless to prevent altogether, and the irritating questions and entanglements thus arising—all these and others that I need not mention, with the resulting strained relations, are a constant menace to our peace, and compel us to keep on a semiwar footing with a nation with which we are at peace.

These elements of danger and disorder already pointed out have been strikingly illustrated by a tragic event which has deeply and justly moved the American people. I have already transmitted to Congress the report of the naval court of inquiry on the destruction of the battle ship "Maine" in the harbor of Havana during the night of the 15th of February. The destruction of that noble vessel has filled the national heart with inexpressible horror. Two hundred and fifty-eight brave sailors and marines and two officers of our navy, reposing in the fancied security of a friendly harbor, have been hurled to death, grief and want brought to their homes and sorrow to the nation.

The naval court of inquiry, which, it is needless to say, commands the unqualified confidence of the Government, was unanimous in its conclusion that the destruction of the "Maine" was caused by an exterior explosion, that of a submarine mine. It did not assume to place the responsibility. That remains to be fixed.

In any event the destruction of the "Maine," by whatever exterior cause, is a patent and impressive proof of a state of things in Cuba that is intolerable. That condition is thus shown to be such that the Spanish Government can not assure safety and security to a vessel of the American navy in the harbor of Havana on a mission of peace, and rightfully there.

Further referring in this connection to recent diplomatic correspondence, a dispatch from our minister to Spain, of the 26th ultimo, contained the statement that the Spanish minister for foreign affairs assured him positively that Spain will do all that the highest honor and justice require in the matter of the "Maine." The reply above referred to of the 31st ultimo also contained an expression of the readiness of Spain to submit to an arbitration all the differences which can arise in this matter, which is subsequently explained by the note of the Spanish minister at Washington of the 10th instant, as follows:

"As to the question of fact which springs from the diversity of views between the reports of the American and Spanish boards, Spain proposes that the facts be ascertained by an impartial investigation by experts, whose decision Spain accepts in advance."

To this I have made no reply.

President Grant, in 1875, after discussing the phases of the contest as it then appeared, and its hopeless and apparent indefinite prolongation, said:

"In such event, I am of opinion that other nations will be compelled to assume the responsibility which devolves upon them, and to seriously consider the only remaining measures possible—media-

tion and intervention. Owing, perhaps, to the large expanse of water separating the island from the peninsula, . . . the contending parties appear to have within themselves no depository of common confidence, to suggest wisdom when passion and excitement have their sway, and to assume the part of peacemaker.

"In this view in the earlier days of the contest the good offices of the United States as a mediator were tendered in good faith, without any selfish purpose, in the interest of humanity and in sincere friendship for both parties, but were at the time declined by Spain, with the declaration, nevertheless, that at a future time they would be indispensable. No intimation has been received that in the opinion of Spain that time has been reached. And yet the strife continues with all its dread horrors and all its injuries to the interests of the United States and of other nations.

"Each party seems quite capable of working great injury and damage to the other, as well as to all the relations and interests dependent on the existence of peace in the island; but they seem incapable of reaching any adjustment, and both have thus far failed of achieving any success whereby one party shall possess and control the island to the exclusion of the other. Under these circumstances the agency of others, either by mediation or by intervention, seems to be the only alternative which must sooner or later be invoked for the termination of the strife."

In the last annual message of my immediate predecessor, during the pending struggle, it was said:

"When the inability of Spain to deal successfully with the insurrection has become manifest, and it is demonstrated that her sovereignty is extinct in Cuba for all purposes of its rightful existence, and when a hopeless struggle for its re-establishment has degenerated into a strife which means nothing more than the useless sacrifice of human life and the utter destruction of the very subject-matter of the conflict, a situation will be presented in which our obligations to the sovereignty of Spain will be superseded by higher obligations which we can hardly hesitate to recognize and discharge."

In my annual message to Congress, December last, speaking to this question, I said:

"The near future will demonstrate whether the indispensable condition of a righteous peace, just alike to the Cubans and to Spain, as well as equitable to all our interests so intimately involved in the welfare of Cuba, is likely to be attained. If not, the exigency of further and other action by the United States will remain to be taken. When that time comes that action will be determined in the line of indisputable right and duty. It will be faced, without misgiving or hesitancy, in the light of the obligation this Government owes to itself, to the people who have confided to it the protection of their interests and honor, and to humanity.

"Sure of the right, keeping free from all offense ourselves, actuated only by upright and patriotic considerations, moved neither by passion nor selfishness, the Government will continue its watchful care over the rights and property of American citizens and will abate none of its efforts to bring about by peaceful agencies a peace which shall be honorable and enduring. If it shall hereafter appear to be a duty imposed by our obligations to ourselves, to civilization, and humanity to intervene with force, it shall be without fault on our part and only because the necessity for such action will be so clear as to command the support and approval of the civilized world."

The long trial has proved that the object for which Spain has waged the war can not be at-

tained. The fire of insurrection may flame or may smolder with varying seasons, but it has not been and it is plain that it can not be extinguished by present methods. The only hope of relief and repose from a condition which can no longer be endured is the enforced pacification of Cuba. In the name of humanity, in the name of civilization, in behalf of endangered American interests which give us the right and the duty to speak and to act, the war in Cuba must stop.

In view of these facts and of these considerations, I ask the Congress to authorize and empower the President to take measures to secure a full and final termination of hostilities between the Government of Spain and the people of Cuba, and to secure in the island the establishment of a stable government, capable of maintaining order and observing its international obligations, insuring peace and tranquillity and the security of its citizens as well as our own, and to use the military and naval forces of the United States as may be necessary for these purposes.

And in the interest of humanity and to aid in preserving the lives of the starving people of the island, I recommend that the distribution of food and supplies be continued, and that an appropriation be made out of the public Treasury to supplement the charity of our citizens.

The issue is now with the Congress. It is a solemn responsibility. I have exhausted every effort to relieve the intolerable condition of affairs which is at our doors. Prepared to execute every obligation imposed upon me by the Constitution and the law, I await your action.

Yesterday, and since the preparation of the foregoing message, official information was received by me that the latest decree of the Queen Regent of Spain directs Gen. Blanco, in order to prepare and facilitate peace, to proclaim a suspension of hostilities, the duration and details of which have not yet been communicated to me.

This fact with every other pertinent consideration will, I am sure, have your just and careful attention in the solemn deliberations upon which you are about to enter. If this measure attains a successful result, then our aspirations as a Christian, peace-loving people will be realized. If it fails, it will be only another justification for our contemplated action.

WILLIAM MCKINLEY.

EXECUTIVE MANSION, April 11, 1898.

The response to the President's message was prompt; and April 13 Mr. Adams, of Pennsylvania, reported from the Committee on Foreign Relations in the House of Representatives the following resolution:

"Whereas, The Government of Spain for three years past has been waging war on the island of Cuba against a revolution by the inhabitants thereof, without making any substantial progress toward the suppression of said revolution, and has conducted the warfare in a manner contrary to the laws of nations, by methods inhuman and uncivilized, causing the death by starvation of more than 200,000 innocent noncombatants, the victims being for the most part helpless women and children, inflicting intolerable injury to the commercial interests of the United States, involving the destruction of the lives and property of many of our citizens, entailing the expenditure of millions of money in patrolling our coasts and policing the high seas in order to maintain our neutrality; and

"Whereas, This long series of losses, injuries, and burdens for which Spain is responsible has culminated in the destruction of the United States battle ship 'Maine' in the harbor of Havana and in the death of 260 of our seamen:

"Resolved by the Senate and House of Representatives of the United States of America in Congress assembled, That the President is hereby authorized and directed to intervene at once to stop the war in Cuba, to the end and with the purpose of securing permanent peace and order there and establishing by the free action of the people thereof a stable and independent government of their own in the island of Cuba. And the President is hereby authorized and empowered to use the land and naval forces of the United States to execute the purpose of this resolution."

This was the measure proposed by the Republican majority of the committee, but it failed to satisfy the Democratic minority, and the gentlemen composing that minority offered a substitute as follows:

"Resolved by the Senate and House of Representatives of the United States of America in Congress assembled—

"SECTION 1. That the United States Government hereby recognizes the independence of the republic of Cuba.

"SEC. 2. That, moved thereto by many considerations of humanity, of interest, and of provocation, among which are the deliberate mooring of our battle ship, the 'Maine,' over a submarine mine and its destruction in the harbor of Havana, the President of the United States be, and he is hereby, directed to employ immediately the land and naval forces of the United States in aiding the republic of Cuba to maintain the independence hereby recognized.

"SEC. 3. That the President of the United States is hereby authorized and directed to extend immediate relief to the starving people of Cuba."

There was a disposition on the part of the majority to shut out this resolution and the report in its favor, and the result was a disgraceful scene, as the Democrats who had been very forward in the movement for war were eager to put themselves on record in the matter. As usual in recent years, a special rule was reported for the purpose of rushing action on the resolution; but in the course of the brief discussion the point urged by the minority was granted as a matter of favor.

Mr. Bailey, of Texas, said amid strong expressions of Democratic approval:

"I am gratified to know that after fifteen months of delay and suspense, it has at last dawned upon the Republican majority of this House that the time for action has arrived. For more than a year we have been entreating you to take some action. During the whole of this session we have appealed to you to act. And it is at least some satisfaction that you have resolved at last not to heed our appeal, but to heed your angry constituents at home. But true to your policy and your traditions, you have resolved that when at last you are compelled to act you will deny to members of this body the opportunity to discuss your conduct.

"There is a radical difference between the resolutions reported by the majority and those reported by the minority. There ought to be time and opportunity allowed for those of us who think the minority resolutions the wiser to point out to the House and to the country the reasons for our belief. And yet I know as well as the members on that side that these resolutions that involve the question of peace or war are to be rushed through this body with a short and insufficient debate, and that, too, when every man in the country knows that nothing can be done until the Senate acts, and you know that the Senate will act with proper deliberation.

"But, Mr. Speaker, we would rather have action at last without discussion than to have the practice

of the last twelve months—allowing ample discussion and no decision."

Mr. McMillin, of Tennessee, said:

"The resolution of the majority does not propose to recognize the republic of Cuba, and the resolution of the minority does. The resolution of the majority does not force the President to send our army and our navy to back up this action immediately; the resolution of the minority does. They differ as the poles differ, and their differences ought to be shown and the Representatives here given an opportunity to show which one of the resolutions best accomplishes the work to be performed.

"You heard the President's message. You know the spirit that it breathed. You know the indecision that characterized it. You know there was no free Cuba in it; and yet you propose to turn over to him the army, you propose to turn over to him the navy, and turn back to him the Treasury, and give him discretion to fight or not to fight, as he pleases. So far as I am concerned, and I believe I represent the members on this side of the House, we are not only in favor of free Cuba, but we intend that the President of the United States shall not stand in the way of that freedom.

"Let us have ample discussion; let us have deliberate action. When we shall send the army there, how much we shall send, is important; how we shall raise revenues is important. We are taking a step that is of the utmost importance, and yet we are about to tell the American people that in this momentous question there shall not be calm deliberation. It does us injustice to legislate in such a way."

The argument for the majority resolution was put by Mr. Adams as follows:

"Our country must proceed in order, under the rules of international law, if we wish to preserve our standing among the nations of the earth. Our President has pursued a consistent course. As soon as he entered the Executive chair he made propositions to Spain, all of which have been granted. He had not been in office sixty days until every American citizen, native born, or those bearing the official stamp of our courts, was set free to breathe that air of freedom which God meant we should enjoy.

"The alleged republic of Cuba has my sympathy. I believe that the men who have struggled so long to obtain their freedom are entitled to our sympathy, and, if possible, to our recognition. But they must first have a standing, such standing under international law as will justify the executive department of our Government in giving such recognition. The conditions now do not fulfill those obligations. It would be impossible for our Government to recognize the insurgents in Cuba. The very fact, if you wish to send an envoy there, you would have to send him by force through the Spanish lines, or you would have to land him on a beach, the same as the insurgents and filibusters have to land their munitions in that country, is enough to show that they have not standing for recognition.

"They have not that stable government which is entitled to recognition. They have not power to carry on civil government. They have no capital or permanently located seat of government. They have not a single port in their possession. They have not a single ship on the high seas. They have not a government under civil authority that can enforce its laws.

"They are surrounded entirely by the Spanish army. And it is a principle of international law which will not be disputed by any man who knows anything on that subject that until the parent country has practically ceased to enforce its government against the rebellious subjects, no other

nation can give the insurgents recognition as a government, because they do not have it as a matter of fact. No man can question that principle of international law. We have fully committed ourselves to it as a nation. No South American republic was recognized by us until years after Spain had yielded all active effort to put it down.

"What is the condition in the island of Cuba today? Spain has a large army there. She occupies every seaport. She is still endeavoring to enforce her authority over that island. For this reason the Executive of this country and the Republican members of the Foreign Affairs Committee can not bring themselves to falsify the diplomatic history of our country and place themselves in a position antagonistic to the recognized principles of international law, for the country that dares to do this puts itself beyond the pale of the great family of civilized nations."

The vote to substitute the resolution of the minority by the committee for that of the majority was lost by the following vote:

YEAS—Adamson, Allen, Bailey, Baird, Ball, Bankhead, Barlow, Bartlett, Beach, Bell, Benner of Pennsylvania, Benton, Bland, Bodine, Botkin, Bradley, Brantley, Brenner of Ohio, Broussard, Brucker, Brundidge, Burke, Campbell, Carmack, Castle, Catchings, Clardy, Clark of Missouri, Clayton, Cochran of Missouri, Cooney, Cooper of Texas, Cowherd, Cox, Cranford, Cummings, Davey, Davis, De Armond, De Graffenreid, De Vries, Dinsmore, Dockery, Dorr, Driggs, Elliott, Ermentrout, Fitzgerald, Fitzpatrick, Fleming, Fowler of North Carolina, Fox, Gaines, Griffith, Griggs, Gunn, Handy, Hartman, Hay, Henry of Mississippi, Henry of Texas, Hinrichsen, Howard of Alabama, Howard of Georgia, Hunter, Jett, Jones of Virginia, Jones of Washington, Kelley, King, Kitchen, Kleberg, Knowles, Lamb, Lanham, Latimer, Lentz, Lester, Lewis of Georgia, Lewis of Washington, Little, Lloyd, Love, McAleer, McClellan, McCormick, McCulloch, McDowell, McMullin, McRae, Maddox, Maguire, Mann, Marshall, Martin, Maxwell, Meekison, Meyer of Louisiana, Miers of Indiana, Moon, Newlands, Norton of Ohio, Norton of South Carolina, Ogden, Osborne, Otey, Peters, Pierce of Tennessee, Rhea, Richardson, Ridgely, Rixey, Robb, Robertson of Louisiana, Robinson of Indiana, Sayers, Settle, Shafroth, Shuford, Simpson, Sims, Skinner, Sladen, Smith of Kentucky, Sparkman, Stallings, Stark, Stephens of Texas, Stokes, Strait, Strowd of North Carolina, Sullivan, Sulzer, Sutherland, Swanson, Talbert, Tate, Taylor of Alabama, Terry, Todd, Underwood, Vandiver, Vehslage, Vincent, Wheeler of Alabama, Wheeler of Kentucky, Williams of Mississippi, Wilson, Young of Virginia, Zenor—150.

NAYS—Acheson, Adams, Aldrich, Alexander, Arnold, Babcock, Baker of Maryland, Barber, Barmham, Barney, Barrett, Barrows, Bartholdt, Belden, Belford, Belknap, Bennett, Bingham, Bishop, Booze, Boutell of Illinois, Boutelle of Maine, Brewster, Bromwell, Brown, Brownlow, Brumm, Bull, Burleigh, Burton, Butler, Cannon, Capron, Chickering, Clark of Iowa, Clarke of New Hampshire, Cochrane of New York, Connell, Connolly, Cooper of Wisconsin, Corliss, Cousins, Crump, Crumpacker, Curtis of Iowa, Curtis of Kansas, Dalzell, Danford, Davenport, Davidson of Wisconsin, Davison of Kentucky, Dayton, Dingley, Dolliver, Dovener, Eddy, Ellis, Evans, Faria, Fenton, Fischer, Fletcher, Foote, Foss, Fowler of New Jersey, Gardner, Gibson, Gillet of New York, Gillett of Massachusetts, Graff, Griffin, Grosvenor, Grout, Grow, Hager, Hamilton, Harmer, Hawley, Heatwole, Hemenway, Henderson, Henry of Connecticut, Henry of Indiana, Hepburn, Hicks, Hilborn, Hill, Hooker, Hopkins, Howe, Howell, Hull, Hurley, Jenkins, Johnson of Indiana, Johnson of

North Dakota, Joy, Kerr, Ketcham, Kirkpatrick, Knox, Kulp, Lacey, Landis, Lawrence, Linney, Littauer, Lorimer, Loud, Loudenslager, Lovering, Low, Lybrand, McCall, McDonald, McEwan, McIntire, Mahany, Mahon, Marsh, Mercer, Mesick, Miller, Mills, Minor, Mitchell, Moody, Morris, Mudd, Northway, Odell, Olmsted, Otjen, Overstreet, Packer of Pennsylvania, Parker of New Jersey, Payne, Pearce of Missouri, Pearson, Perkins, Pitney, Powers, Prince, Pugh, Quigg, Ray, Reeves, Robbins, Royse, Russell, Sauerhering, Shannon, Shattuc, Shelden, Sherman, Showalter, Smith of Illinois, Smith, S. W., Smith, Wm. Alden, Snover, Southard, Southwick, Spalding, Sperry, Sprague, Steele, Stevens of Minnesota, Stewart of New Jersey, Stewart of Wisconsin, Stone, C. W., Strode of Nebraska, Sturtevant, Tawney, Taylor of Ohio, Thorp, Tongue, Updegraff, Van Voorhis, Wadsworth, Walker of Massachusetts, Walker of Virginia, Wanger, Ward, Warner, Weaver, Weymouth, White of Illinois, Williams of Pennsylvania, Yost, Young of Pennsylvania—190.

ANSWERED "PRESENT"—Berry, Brewer—2.

NOT VOTING—Baker of Illinois, Broderick, Brosius, Coddington, Colson, Greene, Hitt, Livingston, McCleary, Stone, W. A., Sulloway, White of North Carolina, Wilber—18.

A motion to recommit was also defeated, and then the majority resolution was adopted under the following title: "Joint resolution authorizing and directing the President of the United States to intervene to stop the war in Cuba, and for the purpose of establishing a stable and independent government by the people therein." All the congressmen voted for the resolution except the following:

NAYS—Adamson, Bankhead, Boutelle of Maine, Brantley, Brewer, Clayton, Cox, Elliott, Griggs, Howard of Georgia, Johnson of Indiana, Lester, Lewis of Georgia, Loud, Maddox, Simpson, Strait, Tate, Taylor of Alabama—19.

ANSWERED "PRESENT"—Berry—1.

NOT VOTING—Baird, Baker of Illinois, Brosius, Coddington, Greene, Hitt, Latimer, Livingston, Stone, W. A., White of North Carolina, Wilber—11.

April 18 the Committee on Foreign Relations of the Senate reported "a joint resolution for the recognition of the independence of the people of Cuba, demanding that the Government of Spain, relinquish its authority and government in the island of Cuba, and withdraw its land and naval forces from Cuba and Cuban waters, and directing the President of the United States to carry these resolutions into effect." The resolution was as follows:

"Whereas, The abhorrent conditions which have existed for more than three years in the island of Cuba, so near our own borders, have shocked the moral sense of the people of the United States, have been a disgrace to Christian civilization, culminating, as they have, in the destruction of a United States battle ship, with 260 of its officers and crew, while on a friendly visit to the harbor of Havana, and can not longer be endured, as has been set forth by the President of the United States in his message to Congress of April 11, 1898, upon which the action of Congress was invited: Therefore,

"Resolved by the Senate and House of Representatives of the United States of America in Congress assembled, First. That the people of the island of Cuba are, and of right ought to be, free and independent.

"Second. That it is the duty of the United States to demand, and the Government of the United States does hereby demand, that the Government of Spain at once relinquish its authority and government in the island of Cuba and withdraw its land and naval forces from Cuba and Cuban waters.

"Third. That the President of the United States be, and he hereby is, directed and empowered to use the entire land and naval forces of the United States, and to call into the actual service of the United States the militia of the several States, to such extent as may be necessary to carry these resolutions into effect."

The Senators were nearly all for immediate action, but there was a difference of opinion as to the policy of the President.

Mr. Turner, of Washington, said in opposition to it, and in favor of immediate recognition of Cuban independence:

"Mr. President, to pursue the course suggested by the President would be an anomaly in international relations. That course involves, first, a threat of armed intervention to force diplomatic concessions; and second, failing such concessions, possible intervention to expel Spain from the island of Cuba. It does not involve the independence of Cuba, because that is only suggested in the President's message for the purpose of making an argument against its present recognition.

"Such a thing, I believe, as is proposed was never heard of in the history of nations. Nations intervene to secure tranquillity, to preserve order, to stop outrage and murder, but never to themselves usurp sovereignty, nor ever to subvert sovereignty, except in the interest of some other nation or in the interest of a subject people struggling for independence. If we intervene in the affairs of Cuba for either one of the three causes first named, we will have accomplished our purpose when Spain has given proper guarantees of better future conduct.

"To propose to expel her from the island after that, or before giving her opportunity to afford such guarantee, would be unheard of and would justly arouse the opposition and protest of other nations. Mr. President, armed intervention involves the use of force and is, in essence, war. It is only less than war by the acquiescence of the power against which it is employed. When writers speak of it as an international right, they speak of it in the same sense that they speak of the right to make war. That right belongs to any nation at any time and for any cause it may esteem sufficient. Both rights spring from the same source, and are held in check by the same sanction, namely, the reprobation of mankind if improvidently exercised. Hence, if we would avoid that reprobation in our intervention in Cuba, it must be either for the purpose of simply restoring order and tranquillity and stable government under the sovereignty of Spain, or it must be in aid of the struggling insurgents who have already so largely overturned the power of Spain.

"The first purpose the President disclaims and the last one he refuses to permit Congress to proclaim or to himself proclaim, and therefore I say his course is an anomaly. But we have a perfect right to intervene in Cuba, in the sense that the right is spoken of, if the sovereignty of Spain has been superseded there by another and superior power, or if her aggressions against us have been such as to justify us in making war on her and in aiding another power to supplant her. There would be no anomaly about that.

"If we do intervene there, the right to do so and the disposition to do so will be predicated, as everybody knows, on both the grounds I have stated. I am opposed, therefore, to further shuffling or evasion. I think we ought now to declare that which it is our purpose to effectuate. Any other self-respecting nation would do so, and for one I want my country to stand in the front rank of all the nations of the world in the matter of dignified and fearless self-respect.

"To stop short now will be to commit this country to a war of conquest. The conclusion is inevitable. To drive Spain out of Cuba without recognizing the independence of the Cuban republic will be to conquer that island by force of arms and to establish our own sovereignty over it. We may hold our conquest for a short time or a long time. We may treat with the insurgents and turn it over to them on such terms as will suit the 'business interests,' or we may, failing such terms, deliver the island back to Spain; but whatever we do eventually, we will in the first instance have waged a war of conquest. As such it will be justly regarded by all the people of the world, and as such it will be justly resented by all the people of the world."

Mr. Fairbanks, of Indiana, argued in favor of intervention without recognition of the Cuban republic:

"Our own tranquillity, our own sense of security, our regard for our present and future comfort and for the lives of her hapless and helpless subjects, demand that we should interpose the mighty power of this Government to stop the carnival of crime and suffering and restore peace in the island of Cuba until some suitable government may be formed which shall be a guarantee to us and to the other nations of the earth that it will at all times in the future be ready and willing and able to discharge its domestic and international obligations.

"It is instinctive with us to desire to see people who are oppressed freed from the oppressor and secured in the God-given, inalienable privileges of life, liberty, and the pursuit of happiness. We desire and hope to see the independence of Cuba secured. Spain has, by every just consideration, by every standard of international duty, forever forfeited any right to further dominion over the Cuban people; and we hope to see established on the island a free and just government, endowed with functions for protecting the lives and property of the present and future generations who may dwell upon it.

"But, Mr. President, I am not prepared at present to favor the recognition of the independence of the present so-called republic of Cuba. We know but little about it. It is too nebulous, too mythical, to be invited into the family of nations by our potential act. The present so-called government, at most, is a military oligarchy with no habitat, with no well-defined governmental organism exercising the functions of a republic; and if we were to recognize its independence under the present pressure without adequate knowledge or information, it might lead to the establishment of a power upon the island which would prove vexatious and hurtful to us, and our second estate might be as bad or worse than our first, or at least we might continue to be seriously menaced and disturbed by it.

"There are, doubtless, among the citizens of the island those capable of forming and establishing a government which will be stable and secure and which will be a guarantee that the Cuban question is settled for all time to come. It seems to me, therefore, that the first imperative duty resting upon us is to establish tranquillity in the island, relieve the suffering and distressed, and then enable the citizens of the island to deliberate and form a government upon such lines as their highest and best interests may require.

"It may be that the present pretended republic is expressive of the highest and best thought of the island, and that its recognition will be found to be in the best interest of all concerned. If this be so, time will demonstrate it. We should not forget that the ultimate decision is in our hands; that justice will not miscarry; delay will not defeat her righteous demands.

"The air is too full of rumors as to the character of the present so-called Cuban republic and as to the bonds that have been floated in its name in this country and said to be in the hands of speculators, to justify us in any hasty act of recognition."

A different phase of opinion was represented by Senator Hoar, of Massachusetts, who said:

"Mr. President, I can not vote for the joint resolution because it introduces, and I believe was meant to introduce, discord and divided counsels in what ought to be the act of a united country."

"I can not vote for it because it undertakes to direct, contrary to all our legislative precedents, a co-ordinate branch of the Government, the Executive, ordering him to proceed at once when his constitutional and legal duties are defined by the Constitution, and not by the law-making power."

"I can not vote for it because it is contrary to the courtesies which prevail between the legislative and Executive and undertakes to take from the discretion of the Executive what ought to belong to him under the Constitution itself."

"I will not vote for it because if it pass and the government of Cuba be now free and independent, the forces of the army of the United States on Cuban land and the navy of the United States in Cuban waters must be under the command of the insurgent leader or their presence there is a war against him."

"Gentlemen have tried by refined and deluding arguments to torture a sentence of the President of the United States, separated from its context, into a suggestion that possibly he might be expecting to make war upon these insurgents. And yet, and you can not escape from it, you are undertaking, in your eager passion, to do something which will be unpleasant to those of your associates who support the President. You are making an affirmation, I repeat, which will put the army and the navy of the United States under the command of Maximo Gomez the moment they get into Cuban waters or onto Cuban soil, or their presence there is war upon the recognized and established government of the country which you say is his."

"I will not vote for it because it violates international law, and thereby in this great transaction sets the sympathy of the nations of the world against us."

"Mr. President, I am not alarmed or disturbed because in the vote I am about to give I am to encounter the dissent of an excited, inflated, and angered majority."

"I am old enough to remember another transaction to which this is a parallel. In the beginning of the Mexican war—a war in regard to which the feeling of the people of the United States was deeply stirred—it was attempted to coerce the minority in the two Houses of Congress by putting into the law which provided for raising troops, and supplying them, a preamble, 'Whereas war exists by the act of Mexico;' and some weak Whigs of that day, fearing that their action would be unpopular, bowed the knee and affirmed by their votes what they knew and believed to be an untruth. Fourteen members of the House of Representatives, with the approval of Henry Clay, voted against that lying preamble, and to his immortal honor be it said the great commoner, though he was ready and eager for the war, declared that he would rather have his tongue cleave to the roof of his mouth than to utter, by an affirmative vote, what he knew to be an untruth."

"The men who yielded in that hour of weakness and of temptation returned to their constituents. One of the most eminent and brilliant citizens of my own State, who was afterwards Speaker of the House, went home to a doom of defeat and popular

disapprobation. The men who recorded their votes on the side of truth in the face of that excited majority are known to-day in our political history as the immortal fourteen."

"I am willing to trust myself, my reputation, my political character, with the people of Massachusetts when I stand up here and vote against what I know, or think I know, to be untrue."

The Senate amended the resolution as reported, then substituted it, the title and the preamble for the joint resolution passed by the House, and adopted the substitute, April 16, by the following vote:

YEAS—Allen, Bacon, Baker, Bate, Berry, Butler, Cannon, Carter, Chandler, Chilton, Clark, Clay, Cockrell, Cullum, Daniel, Davis, Deboe, Faulkner, Foraker, Frye, Gallinger, Gear, Gorman, Gray, Hansbrough, Harris, Heitfeld, Jones of Arkansas, Jones of Nevada, Kenney, Kyle, Lindsay, Lodge, McEnery, McLaurin, Mallory, Mantle, Martin, Mason, Mills, Mitchell, Money, Morgan, Murphy, Nelson, Pasco, Penrose, Perkins, Pettigrew, Pettus, Proctor, Quay, Rawlins, Roach, Shoup, Smith, Stewart, Teller, Thurston, Tillman, Turley, Turner, Turpie, Vest, Warren, Wilson, Wolcott—67.

NAYS—Aldrich, Allison, Burrows, Caffery, Elkins, Fairbanks, Hale, Hanna, Hawley, Hoar, McBride, McMillan, Morrill, Platt of Connecticut, Platt of New York, Pritchard, Sewell, Spooner, Wellington, Wetmore, White—21.

ABSENT—Walthall—1.

The joint resolution in its new shape was as follows:

"Joint resolution for the recognition of the independence of the people and republic of Cuba, demanding that the Government of Spain relinquish its authority and government in the island of Cuba, and to withdraw its land and naval forces from Cuba and Cuban waters, and directing the President of the United States to use the land and naval forces of the United States to carry these resolutions into effect."

"Whereas, The abhorrent conditions which have existed for more than three years in the island of Cuba, so near our own borders, have shocked the moral sense of the people of the United States, have been a disgrace to Christian civilization, culminating, as they have, in the destruction of a United States battle ship, with 266 of its officers and crew, while on a friendly visit in the harbor of Havana, and can not longer be endured, as has been set forth by the President of the United States in his message to Congress of April 11, 1898, upon which the action of Congress was invited: Therefore,

"First. That the people of the island of Cuba are, and of right ought to be, free and independent, and that the Government of the United States hereby recognizes the republic of Cuba as the true and lawful government of that island."

"Second. That it is the duty of the United States to demand, and the Government of the United States does hereby demand, that the Government of Spain at once relinquish its authority and government in the island of Cuba, and withdraw its land and naval forces from Cuba and Cuban waters."

"Third. That the President of the United States be, and he hereby is, directed and empowered to use the entire land and naval forces of the United States, and to call into the actual service of the United States the militia of the several States, to such extent as may be necessary to carry these resolutions into effect."

"Fourth. That the United States hereby disclaims any disposition or intention to exercise sovereignty, jurisdiction, or control over said island except for the pacification thereof, and asserts its determination, when that is accomplished, to leave

the government and control of the island to its people."

The House concurred in the Senate amendments, amending them, however, so as to strike out, first, the words "are, and" in the first clause of the resolution; second, all after the word "independent," in the same clause; and third, to strike out the words "and republic" in the title. After two conferences an agreement was reached by which the House receded from the first amendment, and the Senate concurred in the second and third. The result of the amendments was to avoid the recognition of the existing revolutionary government.

The President approved the joint resolution, April 20, 1898.

On April 25, the President sent to Congress the following message, recommending a joint resolution declaring war against Spain:

To the Senate and House of Representatives of the United States of America:

I transmit to the Congress, for its consideration and appropriate action, copies of correspondence recently had with the representative of Spain in the United States, with the United States minister at Madrid, and through the latter with the Government of Spain, showing the action taken under the joint resolution approved April 20, 1898, "for the recognition of the independence of the people of Cuba, demanding that the Government of Spain relinquish its authority and government in the island of Cuba, and to withdraw its land and naval forces from Cuba and Cuban waters, and directing the President of the United States to use the land and naval forces of the United States to carry these resolutions into effect."

Upon communicating to the Spanish minister in Washington the demand which it became the duty of the Executive to address to the Government of Spain in obedience to said resolution, the minister asked for his passports and withdrew. The United States minister at Madrid was in turn notified by the Spanish Minister for Foreign Affairs that the withdrawal of the Spanish representative from the United States had terminated diplomatic relations between the two countries, and that all official communications between their respective representatives ceased therewith.

I commend to your special attention the note addressed to the United States minister at Madrid by the Spanish Minister for Foreign Affairs on the 21st instant, whereby the foregoing notification was conveyed. It will be perceived therefrom that the Government of Spain, having cognizance of the joint resolution of the United States Congress, and in view of the things which the President is thereby required and authorized to do, responds by treating the reasonable demands of this Government as measures of hostility, following with that instant and complete severance of relations by its action, which by the usage of nations accompanies an existent state of war between sovereign powers.

The position of Spain being thus made known and the demands of the United States being denied with a complete rupture of intercourse by the act of Spain, I have been constrained, in exercise of the power and authority conferred upon me by the joint resolution aforesaid, to proclaim under date of April 22, 1898, a blockade of certain ports of the north coast of Cuba, lying between Cardenas and Bahia Honda and of the port of Cienfuegos on the south coast of Cuba; and further, in exercise of my constitutional powers and using the authority conferred upon me by the act of Congress approved April 22, 1898, to issue my proclamation dated April 23, 1898, calling forth volunteers in order to carry

into effect the said resolution of April 20, 1898. Copies of these proclamations are hereto appended.

In view of the measures so taken, and with a view to the adoption of such other measures as may be necessary to enable me to carry out the expressed will of the Congress of the United States in the premises, I now recommend to your honorable body the adoption of a joint resolution declaring that a state of war exists between the United States of America and the kingdom of Spain, and I urge speedy action thereon to the end that the definition of the international status of the United States as a belligerent power may be made known, and the assertion of all its rights and the maintenance of all its duties in the conduct of a public war may be assured.

WILLIAM MCKINLEY.

EXECUTIVE MANSION, WASHINGTON, April 25, 1898.

On the same day the Senate and the House of Representatives passed and the President signed the declaration of war against Spain. The bill was as follows:

"A bill declaring that war exists between the United States of America and the kingdom of Spain.

"Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, First. That war be, and the same is hereby, declared to exist, and that war has existed since the 21st day of April, A. D. 1898, including said day, between the United States of America and the kingdom of Spain.

"Second. That the President of the United States be, and he hereby is, directed and empowered to use the entire land and naval forces of the United States, and to call into the actual service of the United States the militia of the several States, to such extent as may be necessary to carry this act into effect."

The Measure for National Defense.—Though the declaration of war was not made until April 25, it may be said that the first war measure passed as early as March 9, in the shape of a deficiency bill. The measure was peculiar in itself, beginning with small items for printing and closing with an appropriation of \$50,000,000, to be expended, as the President might see fit, for the national defense; it was more peculiar for the rapidity and unanimity with which it passed, and it was most peculiar as a manifestation of the financial strength of the nation, which could set aside such an amount, on the instant, for a special use. This historic appropriation bill was entitled, "A bill making appropriations to supply urgent deficiencies in the appropriations for the fiscal year ending June 30, 1898, and for prior years, and for other purposes"; and the text was as follows:

"Be it enacted, etc., That the following sums be, and the same are hereby, appropriated, out of any money in the Treasury not otherwise appropriated, to supply deficiencies in the appropriations for the fiscal year 1898, and for other objects hereinafter stated, namely:

"PRINTING AND BINDING.

"For printing and binding for the Navy Department, \$10,000.

"For printing and binding for the Department of Justice, \$4,000.

"For printing and binding for the Department of State, \$12,000.

"For printing and binding for the Interior Department, \$40,000.

"NAVAL ESTABLISHMENT.

"BUREAU OF MEDICINE AND SURGERY.

"For surgeons' necessities for vessels in commission, navy yards, naval stations, Marine Corps, and

Coast Survey, and for the civil establishment at the several naval hospitals, navy yards, naval laboratory and department of instruction, museum of hygiene, and Naval Academy, \$10,000.

"BUREAU OF EQUIPMENT.

"Equipment of vessels: For purchase of coal for steamers' and ships' use, including expenses of transportation, storage, and handling the same; hemp, wire, iron, and other materials for the manufacture of cordage, anchors, cables, galleys, and chains; canvas for the manufacture of sails, awnings, hammocks, and other work; water for steaming purposes; stationery for commanding and navigating officers of ships, equipment officers on shore and afloat, and for the use of courts-martial on board ship, and for the purchase of all other articles of equipment at home and abroad, and for the payment of labor in equipping vessels and manufacture of equipment articles in the several navy yards; foreign and local pilotage and towage of ships of war; services and materials in repairing, correcting, adjusting, and testing compasses on shore and on board ship; nautical and astronomical instruments, and repairs to same; libraries for ships of war; professional books and papers, and drawings and engravings for signal books; naval signals and apparatus, namely, signals, lights, lanterns, rockets, running lights, compass fittings, including binnacles, tripods, and other appendages of ships' compasses; logs and other appliances for measuring the ship's way, and leads and other appliances for sounding; lanterns and lamps, and their appendages, for general use on board ship, for illuminating purposes, and oil and candles used in connection therewith; bunting and other materials for making and repairing flags of all kinds; photographic instruments and materials; musical instruments and music; and installing and maintaining electric lights and interior signal communications on board vessels of war, \$100,000.

"BUREAU OF ORDNANCE.

"For miscellaneous items, namely: Freight to foreign and home stations; advertising; cartage and express charges; repairs to fire engines; gas and water pipes; gas and water tax at magazines; tolls, ferriage, foreign postage and telegrams to and from the bureau, technical books, and incidental expenses attending inspections of ordnance material, \$7,000.

"NATIONAL DEFENSE.

"For the national defense, and for each and every purpose connected therewith, to be expended at the discretion of the President and to remain available until Jan. 1, 1899, \$50,000,000."

The bill was reported March 8 in the House of Representatives and passed the same day, not a single member voting against it, while 313 voted for it. Many brief speeches were made, so similar in sentiment that two of them may be given as representing all.

Mr. Cannon, of Illinois, said:

"Gentlemen may say this is an extraordinary and unusual appropriation. It is. The object of your committee in reporting it and asking your favorable consideration is that the President of the United States in an orderly way may make this expenditure, if it be necessary to make it, to fully utilize the small army that we have, and to utilize the larger navy. It may be suggested in the minds of some that this appropriation may be in the nature of a threat. Nothing could be further from the intention of your committee than that in recommending it to your favorable consideration.

"This appropriation, if made, will be used in the discretion of a wise and a patriotic Executive so as

to enable the United States of America, that we feel stands among the first nations of the world, in an orderly, decent, and just manner to maintain justice and the national honor. Simply that and nothing more. Some may say that this is a war appropriation. I say, in my judgment, measuring my words, that it is a peace appropriation. In conclusion, the Government of the United States can not afford to do more or less than will protect the national honor, justice, and the right. The Government of the United States would not, if it could, trench upon the just rights of any other nation on earth."

Mr. Sayers, of Texas, said:

"Mr. Speaker, in the presence of possible danger from a foreign source, it is indeed gratifying to me, and, I take it, to every gentleman in the House, to know that the representatives of the people are in strict accord and that there is no difference of sentiment among them. The appropriation of \$50,000,000, which is recommended by the Committee on Appropriations, has the hearty and unanimous indorsement of every member of that committee, and the House is asked to accept its recommendation and, without threat or denunciation, to pass the item.

"I cordially agree with the gentleman from Illinois that this is essentially a measure of peace, and it should be so regarded, not only by the House and by the country generally, but also by all other peoples who may be interested in our deliberations. The proposition to place \$50,000,000 under the control of the Executive for the purpose of defense can not and must not be construed as a threat. It is only a wise, safe, and patriotic precaution to enable the President, when Congress shall have adjourned, if the exigencies of the situation should demand, to put the country in a complete state of defense. Only this and nothing more is involved in the appropriation.

"And, Mr. Speaker, I will say before concluding that should it be required to expend this money, I believe it will be done wisely, honestly, and economically; and for one, so long as the present danger from abroad continues to threaten us, I intend to give an honest and a sincere support to the Administration as respects our foreign relations, to the end that peace may be preserved, and if it can not, that the dignity and the honor of our country may be maintained.

"I have every confidence that the Administration will in the pending controversy act wisely, cautiously, and with all proper firmness."

The bill was reported in the Senate March 9, and passed without discussion, 76 Senators voting for it and none against it.

It was approved by the President on the same day.

The War Revenue Law.—The bill to provide ways and means to meet war expenditures was reported by Mr. Dingley, of Maine, from the Committee on Ways and Means, in the House of Representatives April 26, and the debate on it began April 27. In explanation of the measure, Mr. Dingley made a statement as to the increased expenditure made necessary by the war, and argued that the cash balance in the Treasury on March 9, when \$50,000,000 was appropriated for the national defense, though apparently \$225,000,000, was in reality by no means so great, as \$100,000,000 of the gold reserve, \$33,000,000 of the bank redemption fund, \$14,000,000 to meet Pacific Railroad bonds, and \$13,000,000 in fractional currency were not really available. He held, therefore, that an increase of revenue should be provided, and that loans should be authorized. He said:

"Mr. Chairman, the Committee on Ways and

Means have addressed themselves to the various methods that have been suggested for the raising of additional revenue. They naturally have had recourse to the legislation of the period of the civil war, when so large an amount had to be raised, and they have found, after a careful consideration of the question of taxation, that on the whole it is better at the present time, and we trust that that may be all that may be necessary, that about \$100,000,000 additional revenue should be raised, and that entirely through internal-revenue legislation. Hence the war revenue bill which has been reported provides for internal-revenue taxes exclusively.

"These taxes have been selected, first, because we have the machinery for the collection of them now, and they can be collected with but slight additions to the force and with but slight increase of expense. We have selected them also because they were a source of revenue successfully seized upon during the civil war, and because they are taxes either upon articles of voluntary consumption or upon objects where the tax will be paid by those who are ordinarily able to pay them; and we have refrained from putting a tax in a direction where it would be purely upon consumption unless the consumption is of an article of voluntary consumption, so that the consumer may regulate his own tax, following what is the accepted rule of taxation in all countries, with a view of imposing the least burden and disturbing the business of the country as little as possible.

"Now I want to point out the direction in which we have proceeded. First, we have doubled the tax on fermented liquors, giving a rebate of 5 per cent., the estimated proportion of packages that are spoiled and which the owner does not receive compensation for. This increase of tax will yield about \$33,000,000.

"The rebate prior to the act of 1897 was 7½ per cent. We have reduced it to 5 per cent., for the reason that the evidence presented satisfies us that the proportion of spoiled packages is less than formerly, on account of improved processes of manufacture and improved means of cold storage; and we have made the amount 5 per cent. This increase of tax on beer, as I have said, will give an additional revenue of about \$33,000,000.

"We have also doubled the tax on tobacco, now 6 cents per pound, raising it to 12 cents per pound, which will give an additional revenue of \$15,000,000; and we have increased the tax on cigars and cigarettes \$1 per thousand on each kind, giving an additional revenue of about \$5,000,000. The act of 1897 increased the tax on cigars without increasing the tax on tobacco, so that by this arrangement the proportion between tobacco and cigars has been made almost exactly the same as it was before 1897.

"We have provided also that the increased tax shall apply to stocks of tobacco and cigars on hand. As there has been some objection to this, I shall briefly state the reasons that controlled the committee in its action. Internal taxes applied to articles increase the cost and necessarily the selling price of the articles to the extent of the tax. When, therefore, an additional tax of \$1 per thousand is placed on cigars and of 6 cents per pound on the tobacco, the increased cost of the article in the market is inevitably placed on the consumer.

"In view of the fact that the Government proposes to increase the tax for the purpose of securing revenue, and the consumer must pay this increased price to the owner of the stock, this increase belongs to the Treasury, and not to the accidental holder of large stocks, who would gather that amount into his own pocket unless this provision were made. The committee with great unanimity

in this matter, feeling that justice—justice to the Government, justice to all interests, justice to the different manufacturers of tobacco and cigars, some of whom have stocks and some of whom have not stocks—required it, determined that the increased tax should apply to stocks on hand as well as goods to be made hereafter.

"This view is strengthened by the fact that when the tax has been reduced by the Government, the Government has refunded to the holder of stocks the amount of the reduction of the tax and given him the benefit, because the price would be reduced to the extent of the tax; and what was just for the owner of stocks when the tax was reduced is now just to the Government when the tax is to be increased.

"We have also restored a special tax of \$4.80 per annum upon dealers in tobacco and cigars. Many of you will probably remember that the tax on these special dealers was abolished in 1890. It had continued from the war period and subsequently up to 1890, with frequent reductions. It will produce about \$5,000,000; and the belief is that a small tax of this kind will not only enable the officers of the Internal Revenue Bureau to better enforce the tax on tobacco and cigars, but will be so small as to not be felt by the individual dealer, and will yield a considerable revenue to the Government. Thus about \$25,000,000 additional revenue will be secured from tobacco, cigars, cigarettes, and dealers.

"We have restored the adhesive-stamp tax which existed from 1864 to 1872, placing it in large part on the basis of the law as it stood in 1866, with certain additions, including the tax on transfers of stock, etc., which was placed by the Senate as an amendment in the tariff bill of 1897 and was omitted in conference. This will produce a revenue of about \$30,000,000; that is, so far as it can be estimated. The details of that stamp tax in large part are the same as they were under the act of 1866, which can be explained better in the debate under the five-minute rule.

"We selected several articles of voluntary consumption, on which we have placed a stamp tax, not included in the act of 1866. They are chewing gum, mineral waters, beverages of all kinds not otherwise taxed under the internal-revenue laws, and wines. I should also add that we have restored the tax on proprietary medicines substantially as it existed in the act of 1866. It is estimated that the adhesive-stamp tax on instruments, bonds, etc., will reach, as I have said, \$30,000,000.

"How much will be raised on the four articles added it has not been found possible to estimate with any precision. It is not estimated by any one at less than \$5,000,000, and by many it is estimated at very much more. The committee felt that without precise data on which to make a statement they would leave the matter unestimated, being certain, however, that these articles will be large revenue producers.

"We have increased the tonnage tax on vessels in the foreign trade only. There is no tonnage tax now on vessels in the coastwise trade, and none is placed on them by this bill. We have restored these taxes, not however to the amount of the war period, on which there will be an increased revenue of about two and one half million dollars. The reasons for this increased tax lie in these facts.

"Nine tenths of the vessels in this trade are foreign, and during the war now before us, I regret to say, it is probable that nearly all will be foreign vessels. The tonnage tax we propose to apply to these vessels in the foreign trade is not much larger than that imposed by the leading European powers on vessels engaged in foreign trade, precisely the same as France imposes, and slightly larger than

Great Britain imposes for the purpose of maintaining lighthouses and other aids to commerce. It is believed that this is a just tax which the Government is fairly entitled to under any conditions, and there is great propriety in restoring it to two thirds of the figure which existed in the civil war.

"We have repealed that provision of the act of 1886 which tendered to foreign powers reciprocity in tonnage dues, for the reason that in experience it has been found that it worked entirely to the benefit of other countries, and not in any manner to the benefit of this country.

"It has been necessary to repeal the provision in the shipping act of 1886, dedicating the tonnage tax to the support of the Marine Hospital Service. It will be remembered that the act of 1886 reduced the tonnage tax, and that a provision was inserted making a permanent appropriation of the receipts from the tonnage taxes for the support of the Marine Hospital Service, so that since that time the Marine Hospital Service has had the benefit of the amount received from this tonnage tax, which last year was in excess of \$800,000. We believe that method of making appropriations is vicious.

"Every appropriation should be distinctly made by Congress, and those who have expended it should report what has been done with the money. But the main reason for inserting this provision is that if we did not do so all of the two and a half millions would be permanently appropriated to the Marine Hospital Service. After consultation with the chairman of the Committee on Appropriations, he has concurred in this provision making a special appropriation for the next fiscal year and leaving subsequent appropriations for the Marine Hospital Service to be made annually.

"Now, all these increased taxes proposed by the bill will give an additional revenue of from ninety to one hundred million dollars, not less than ninety millions in any probable event, and not more than one hundred millions in any probable event. It is impossible to come nearer than that in any estimate, as what the revenue may be will depend largely on the condition of business.

"But it is the opinion of many of those gentlemen who administer the revenue laws that not less than ninety millions, and some think one hundred millions, will be obtained from these provisions which I have described. All of them, it will be observed, are taxes on articles of voluntary consumption, or taxes on business paid by those who ordinarily can afford to pay them, disturbing business to the minimum extent, giving a measure of revenue immediately in the case of fermented liquors, tobacco, and cigars, or to be obtained as soon as the provisions go into effect as to other provisions.

"The stamp provision will take effect the 1st of June, the special taxes upon dealers in tobacco will go into effect the 1st of July, and the increase on fermented liquors and tobacco on the day following the passage of this bill.

"Having thus reviewed the subjects of taxation resorted to for the purpose of increasing the revenue, I am now brought to the question of borrowing. The additional revenue from the sources I have specified has been provided as a basis for the purpose of meeting current expenditures in part, for the payment of interest on what the Government may borrow, and also for maintaining the public credit.

"But it is evident that the war upon which we have entered—unless all signs should fail, as I hope they may—is not to be simply a sixty days' affair, is not to be simply a three months' affair, is not to be even a six months' affair; and the more earnest we are in our preparations, the more unitedly we stand, the more means we provide for defense and

offense, the more we arm the Government with the means of carrying on this war, the shorter it will be.

"It is evident that no measure of taxation that can be proposed can meet the expenditures of the war we have already entered upon. Some other provision must be made. What does every government have to do after it has exhausted the appropriate means of taxation such as under its constitution are within its reach? It goes out and borrows. Unless we propose to conduct this war feebly—unless we propose to leave our army in the field unfed, unclothed, unpaid—we have got to borrow.

"No nation on the face of the earth ever escaped that necessity in war. Fortunate it is for this country that it has maintained its good faith in the past so fully that to-day it has almost the highest credit of any government on the face of the earth. Now, we must go out and borrow for the time being. There are contained in this bill two provisions with respect to borrowing for the purpose of carrying on this war effectively—for the purpose of sustaining our navy on the seas and our armies in the field and securing as speedy a conclusion of hostilities as possible.

"In the first place, in section 27 we authorize the Secretary of the Treasury to issue and sell not exceeding \$500,000,000 of 10-20 3-per-cent. coin bonds, to be disposed of as a popular loan in the first place and from time to time as the public necessities may require. These bonds are to be issued in denominations of \$25 and multiples thereof, \$50 being the lowest bond that has ever before been issued.

"And, although it is not specifically provided for in this bill, I may say that it is the intention of the Secretary of the Treasury, commencing with \$200,000,000 of this loan, when authorized, to place it at the post offices throughout the country, wherever that can be done, and to offer these bonds first of all to the masses of the American people, who, I believe, will, not only for the purpose of investment but from patriotic motives, embrace the opportunity of subscribing for them.

"And, on the supposition that the amount of subscriptions made will exceed the amount of the loan required by the Government, the circular to be issued by the Secretary of the Treasury will provide that every subscriber for the loan to the extent of a thousand dollars or less shall have the whole amount that he subscribes for, and those who subscribe for larger sums only proportional amounts, the object being to reach the masses of the people who may desire to make this investment.

"Now, I wish to say a single word with regard, first, to the rate of interest—3 per cent. Some doubt has been expressed as to whether a 3-per-cent. bond can now be floated at par. The committee has obtained information, so far as possible, throughout the country in reference to the probability of disposing of such bonds.

"And, Mr. Chairman, the belief of the committee and others who have the most information respecting the matter is that there will be no question whatever about being able to dispose of them.

"But in order to make this absolutely sure—for it would be a serious misfortune not to have the loan taken—in order to make it sure, these bonds are made redeemable after ten years, at the option of the Government, and become payable in twenty years. The reason for making the bonds in this form is that it is believed that a five-year period, in the first place, might affect the placing of the bonds, especially the later issues; and it is important, therefore, in this view of the case, that they should run at least ten years, in order to make it certain that the bonds will be taken.

"But the second reason influencing the committee was this: We found, on examination, that

the existing loans of the Government are payable in such way that, even if we could place 5-20 3-per-cent. bonds instead of ten-twenties, the latter would be equally favorable for the Government for the reason that in 1904, six years from the present time, there will become due \$100,000,000 of 5-per-cent. bonds.

"Now, obviously all we shall be able to do at the end of the five years will be to redeem the \$100,000,000 of 5-per-cent. bonds; and, as they bear 5 per cent. interest, the Government, of course, would choose to call them in and pay them off rather than the 3-per-cent. bonds. In 1907 there comes due \$559,641,500 of 4-per-cent. bonds, coming right along after we have completed the payment of the 5-per-cent. Of course the Government will call them in and pay them off before paying the 3-per-cent.

"And having over five hundred millions of them, they will be all we can take care of, until the ten years' bonds falling due in 1908, when these new bonds will be redeemable at the pleasure of the Government.

"So, Mr. Chairman, from the point of view of the Government's interest it is better that these bonds should bear the minimum time limit of ten years rather than the shorter term of five. And on the point of securing their being taken by the people at 3 per cent., it is evidently better that they should have a longer term to run.

"Having made provision for a permanent loan for an amount not exceeding \$500,000,000, then it became important to make provision for the obtaining of money temporarily immediately, before the permanent loan can be placed, before additional revenue can be secured, and also for any contingencies that may come in the future. Hence, we have provided for a temporary issue of certificates of indebtedness, bearing interest at 3 per cent., payable in not exceeding one year, and providing that the amount that may be outstanding at any time shall not exceed \$100,000,000."

This clear statement gives the scope of the measure as reported from the Committee on Ways and Means and as it passed the House. There was no opposition meant to thwart the purpose of the bill, as there was a thorough agreement on the necessity of providing funds to meet the war expenditure; but there was a sharp difference of opinion as to the methods to be adopted for raising revenue. Various schemes were proposed by members of the minority in the House; and the levying of an income tax, the coinage of the seigniorage silver in the Treasury, the issue of a limited amount of greenbacks, and the taxation of corporations were among the favorable devices. The bitterest criticism was made on the scheme for a great bond issue, as designed to serve other purposes than those professed. Mr. McDowell, of Ohio, stated the position clearly:

"We are heartily in favor of providing sufficient funds for equipping the army and navy thoroughly, to feed them well, to furnish them with everything that will contribute to their comfort and safety as far as possible. We do not want them to lack for anything that will enable them to prosecute the war vigorously and successfully. Since war has come, the American people want prompt, energetic action, and no party will respond more heartily and promptly to the country's call and needs than the Democratic party.

"It must be admitted that there is urgent necessity for providing means to bring this war to a victorious termination. No one is more desirous of accomplishing this than I am. Some provisions in the bill under consideration meet my approval. The proposition to authorize the Secretary of the Treasury to issue \$500,000,000 of 10-20 bonds does

not meet my approval. I do not believe that the present emergency demands the amount of money—\$700,000,000—for which this bill makes almost immediate provision.

"We should studiously avoid an increase of the interest-bearing indebtedness of our Government. The issuing of bonds should come only when an emergency makes it an absolute necessity. Let us see what amount of money can be used for war purposes without issuing bonds now. According to the statement given out by the Secretary of the Treasury to-day there is in the United States Treasury an available cash balance, excluding the gold reserve, of \$118,000,000, in round numbers.

"But according to the statements of the gentleman from Maine, we have only about \$60,000,000 available for all purposes of the Treasury. It therefore appears that the system of bookkeeping of the Treasury Department is misleading. It may be safe to take \$60,000,000 as the amount. For \$42,000,000 silver seigniorage silver certificates could be issued. By the internal-revenue tax provision of this bill we are told \$100,000,000 will be produced.

"By the provision for a temporary issue of certificates of indebtedness another \$100,000,000 can be produced. This would give us \$302,000,000 to carry on the war until Congress would again be in session next December—a sum, in my judgment, greater than we shall need to drive Spain off the Western Hemisphere. Suppose we have doubts about this amount of money being sufficient. There are other well-tried and most satisfactory methods of raising war revenue.

"This bill should start off, first, with an income tax that would produce \$100,000,000 or more annually. The ablest statesmen, lawyers, and economists have pronounced an income tax the most fair and just of all systems of taxation. Dr. Francis Wayland (*Political Economy*, page 257) says, speaking of income tax: 'This is the most equitable of all taxes, since it touches men exactly according to their abilities.' An income tax is not an untried thing. In time of the civil war we laid such tax, and no court of that time ever intimated that it was unconstitutional. During the existence of this law we collected \$346,000,000. It is a notable fact that the law was repealed by a systematic and determined effort of certain politicians who sought to institute high-tariff taxes.

"In 1842 Sir Robert Peel, Premier of England, obtained from Parliament authority to levy an income tax for three years to meet a temporary deficiency in the revenues which then existed.

"This was not in time of war, but when England was at peace. The tax was effectual and satisfactory. In 1845, when the income tax was about to expire by limitation, Sir Robert Peel had come to the conclusion that it was a just tax, and, though himself a protectionist at that time, he considered it more fair than a custom tax. Although he had secured the tax as an expedient, on account of its satisfactory results he determined to keep it on principle.

"Our present system of taxation falls too heavily upon those least able to bear it. The wealthy classes are not bearing their share of the burdens of the Government. By enacting this bill into a law we will make taxes more onerous on the poor. The internal-revenue produced by this bill would come in a much larger proportion from the poor and moderately well-to-do classes than from the very wealthy. In other words, those possessing the greater part of the wealth of the country would not pay their share of the taxes.

"This is certainly an opportune time to enact an income-tax law. The masses of the people would approve of such a measure, because it is right. The

poor must fight the battles of the country, and the men with vast incomes should help to pay, according to their ability at least, the expenses of the war. But our friends on the other side say we must not insert the income-tax law of 1894 in this bill, because the Supreme Court has decided that act unconstitutional. We have a very distinct recollection of the history of that decision.

"The court stood 5 to 4 against the constitutionality of the law after one of the judges had mysteriously reversed his former decision. That judge has not to this day given the reasons for his change of opinion. Who knows what he might do if the question should come up again? In time of war men are likely to act differently than in time of peace? They are more likely to be guided by patriotism than by partisanship, more influenced by a sense of justice than by prejudice or selfish motives.

"Former courts have decided an income-tax law constitutional. One court only has decided it unconstitutional. In the minds of the people the question is not permanently settled, and it never will be settled until it is settled right.

"The gentleman from Maine tells us if we pass an income-tax bill we may become entangled in lawsuits and the Government will not get the revenue which it needs. Can it be that wealthy Americans are less patriotic than the Spaniards? Wealthy Spaniards at home and abroad are making large voluntary contributions for the support of their Government.

"Would the gentleman from Maine have us believe that our own citizens, who have made their millions at the mercy of the masses, would resist the authority of the Government to collect taxes that are just and equitable? Does he believe that the trusts and combines that have been so well cared for by his tariff law would refuse to bear their share of the burdens of this war? What a reflection upon the patriotism of American millionaires!

"We on this side have been charged with playing for partisan ends. Let us see where partisanship has been exhibited. This bill was framed exclusively by Republican members of the Ways and Means Committee. The Democratic members were not invited to participate in the work of drafting the bill. They were not notified even when committee meetings were to be held. After the bill was prepared, the Democratic members of the committee were called in to hear it read, but were not given an opportunity to effect any changes.

"The bill is a purely Republican measure. The evident intention of the majority is to railroad it through this House in the shape in which it was brought here. What consistency, then, is there in charging this side with partisanship when we make reasonable efforts to eliminate infamous propositions of the bill and insert popular provisions?

"I believe that this bill has been framed for more purposes than the chairman of the committee has stated. It is well known that under the Dingley tariff law there is a deficit of \$60,000,000, exclusive of the \$54,000,000 received from the sale of the Pacific railroads.

"The Government can not depend upon the sale of more railroads to even up the growing deficit under the present tariff act. Hence the gentleman from Maine has taken advantage of the present emergency to re-enforce his tariff law. The committee has also increased the taxes on certain articles, from doing which they were prevented last year by a conspicuous Republican from Ohio, with the view that these rates shall be permanent. The most outrageous provision of the bill is the bond feature. That any party should designedly take advantage of the present crisis to place upon the

American people \$500,000,000 more of interest-bearing indebtedness is criminal.

"There is absolutely no necessity for a bond issue at this period of the situation. It is within the powers of Congress to provide all the revenue needed without issuing bonds. Let us set about to do that. It seems to me that the very persons who were working to consummate a bond deal before this Government was allowed to take any action upon this Cuban question are now the ones who are determined to place a bond provision in this revenue bill.

"It is unfortunate that there is an element in this country who believe a great public debt is a great public blessing.

"I rejoice that on so many emergency measures brought in here in the last three months the two sides of this House have been able to unite so thoroughly. I wish this revenue bill was in such a shape that we on this side could consistently and conscientiously support it. Our opposition to it is not that we do not want to provide the funds to carry on the war. We believe there is a common ground upon which the parties in this House could and should meet. The best interests of our nation demand it.

"The propositions offered by the minority are reasonable, sensible, and popular. First, let us provide for an income tax. Then coin the silver bullion in the Treasury or issue silver certificates in lieu thereof, provide for an increase of Treasury notes on the credit of the Government, and, if deemed necessary, levy moderate internal-revenue taxes on articles of voluntary consumption. A revenue bill containing these provisions would give us all the revenue we need to defeat a nation decrepit and despised."

All attempts to amend the measure on the vital points urged by its opponents failed. April 29 Mr. Bland, of Missouri, moved that the bill be recommitted, with instructions to the committee to report it with an amendment at the close, which was a detailed provision for an income tax. The motion failed by the following vote:

YEAS—Adamson, Bailey, Baker of Illinois, Ball, Bankhead, Barlow, Bartholdt, Bartlett, Bell, Benner of Pennsylvania, Benton, Berry, Bland, Bodine, Botkin, Bradley, Brantley, Brenner of Ohio, Brewer, Bromwell, Broussard, Brucker, Brundidge, Burke, Carmack, Castle, Catchings, Clardy, Clark of Missouri, Clayton, Cochran of Missouri, Cooney, Cooper of Texas, Cowherd, Cox, Cummings, Davey, Davis, De Armond, De Graffenreid, De Vries, Dinsmore, Dockery, Driggs, Elliott, Fitzgerald, Fitzpatrick, Fleming, Fowler of North Carolina, Fox, Gaines, Greene, Griffith, Griggs, Gunn, Handy, Hartman, Hay, Henry of Mississippi, Henry of Texas, Howard of Georgia, Hunter, Johnson of Indiana, Jones of Virginia, Jones of Washington, King, Kitchin, Kleberg, Knowles, Lamb, Lanham, Latimer, Lentz, Lester, Lewis of Georgia, Lewis of Washington, Little, Livingston, Lloyd, Love, McClellan, McCormick, McCulloch, McDowell, McEwan, McMillin, McRae, Maddox, Maguire, Maxwell, Meyer of Louisiana, Miers of Indiana, Moon, Newlands, Norton of Ohio, Norton of South Carolina, Ogden, Osborne, Otey, Peters, Pierce of Tennessee, Richardson, Ridgely, Rixey, Robb, Robertson of Louisiana, Robinson of Indiana, Sayers, Settle, Shafer, Shuford, Simpson, Sims, Slayden, Smith of Kentucky, Sparkman, Stephens of Texas, Stokes, Stowd of North Carolina, Sullivan, Sulzer, Swanson, Talbert, Taylor of Alabama, Thorp, Underwood, Vandiver, Vehslage, Vincent, Wheeler of Alabama, Wheeler of Kentucky, White of Illinois, Wilson, Zenor—134.

NAYS—Acheson, Adams, Aldrich, Alexander, Arnold, Babcock, Baker of Maryland, Barham, Barney,

Barrows, Beach, Belden, Belford, Belknap, Bennett, Bingham, Bishop, Booze, Boutell of Illinois, Boutelle of Maine, Brewster, Broderick, Brown, Brownlow, Brumm, Bull, Burleigh, Burton, Butler, Cannon, Capron, Chickering, Clark of Iowa, Cochrane of New York, Connell, Cooper of Wisconsin, Corliss, Cousins, Crump, Crumpacker, Curtis of Iowa, Curtis of Kansas, Dalzell, Danford, Davidson of Wisconsin, Davison of Kentucky, Dayton, Dingley, Dolliver, Dorr, Dovener, Ellis, Evans, Faris, Fischer, Fletcher, Foote, Foss, Fowler of New Jersey, Gardner, Gibson, Gillet of New York, Graff, Griffin, Grosvenor, Grout, Grow, Hager, Hamilton, Harmer, Hawley, Heatwole, Hemenway, Henderson, Henry of Connecticut, Henry of Indiana, Hepburn, Hicks, Hillborn, Hill, Hitt, Hooker, Hopkins, Howe, Howell, Hull, Jenkins, Johnson of North Dakota, Joy, Kerr, Ketcham, Kirkpatrick, Knox, Kulp, Lacey, Landis, Lawrence, Littauer, Loud, Loudenslager, Lovering, Low, Lybrand, McAleer, McCall, McCleary, McDonald, McIntire, Mahon, March, Mercer, Mesick, Miller, Mills, Minor, Mitchell, Moody, Morris, Mudd, Northway, Olmsted, Otjen, Overstreet, Parker of New Jersey, Payne, Pearce of Missouri, Pitney, Powers, Pugh, Ray, Reeves, Robbins, Royse, Russell, Sauerhering, Shannon, Shattuc, Sherman, Smith of Illinois, S. W. Smith, William Alden Smith, Snover, Southard, Southwick, Spalding, Sperry, Sprague, Steele, Stevens of Minnesota, Stewart of New Jersey, Stewart of Wisconsin, C. W. Stone, W. A. Stone, Strode of Nebraska, Sturtevant, Sulloway, Tawney, Tayler of Ohio, Tongue, Updegraff, Van Voorhis, Wadsworth, Walker of Massachusetts, Walker of Virginia, Wanger, Ward, Weaver, Wheeler of Alabama, White of Illinois, Williams of Pennsylvania, Wise, Young—181.

ANSWERED "PRESENT"—Baird, Howard of Alabama, Mann, Martin, Meekison, Skinner, Todd—7.

NOT VOTING—Allen, Barber, Barrett, Brosius, Campbell, Clarke of New Hampshire, Coddling, Colson, Connolly, Cranford, Davenport, Eddy, Ermentrout, Fenton, Gillett of Massachusetts, Hinrichsen, Hurley, Jett, Kelley, Linney, Lorimer, Mahany, Marshall, Odell, Packer of Pennsylvania, Pearson, Perkins, Prince, Quigg, Rhea, Shelden, Showalter, Stallings, Stark, Strait, Sutherland, Tate, Terry, Warner, Weymouth, White of North Carolina, Wilber, Williams of Mississippi—43.

The bill was then passed by the following vote:

YEAS—Acheson, Adams, Aldrich, Alexander, Arnold, Babcock, Baker of Maryland, Barham, Barney, Barrows, Bartholdt, Beach, Belden, Belford, Belknap, Bennett, Bingham, Bishop, Booze, Boutell of Illinois, Boutelle of Maine, Brewster, Broderick, Bromwell, Brown, Brownlow, Brumm, Bull, Burleigh, Burton, Butler, Cannon, Capron, Chickering, Clark of Iowa, Connell, Cooper of Wisconsin, Corliss, Cousins, Crump, Crumpacker, Cummings, Curtis of Iowa, Curtis of Kansas, Dalzell, Danford, Davidson of Wisconsin, Davison of Kentucky, Dayton, Dingley, Dolliver, Dorr, Dovener, Driggs, Eddy, Ellis, Evans, Faris, Fenton, Fischer, Fitzgerald, Fletcher, Foote, Foss, Fowler of New Jersey, Gardner, Gibson, Gillet of New York, Graff, Griffin, Grosvenor, Grout, Grow, Hager, Hamilton, Harmer, Hawley, Heatwole, Hemenway, Henderson, Henry of Connecticut, Henry of Indiana, Hepburn, Hicks, Hillborn, Hill, Hitt, Hooker, Hopkins, Howe, Howell, Hull, Jenkins, Johnson of Indiana, Johnson of North Dakota, Joy, Kerr, Ketcham, Kirkpatrick, Knox, Kulp, Lacey, Landis, Lawrence, Littauer, Loud, Loudenslager, Lovering, Low, Lybrand, McAleer, McCall, McCleary, McClellan, McDonald, McEwan, McIntire, Mahon, Marsh, Mercer, Mesick, Miller, Mills, Minor, Mitchell, Moody, Morris, Mudd, Northway, Olmsted, Otjen, Overstreet, Parker of New Jersey, Payne, Pearce of Missouri, Pitney, Powers, Pugh, Ray, Reeves, Robbins, Royse, Russell, Sauerhering,

Shannon, Shattuc, Sherman, Showalter, Smith of Illinois, S. W. Smith, William Alden Smith, Southard, Southwick, Spalding, Sperry, Sprague, Steele, Stevens of Minnesota, Stewart of New Jersey, Stewart of Wisconsin, C. W. Stone, W. A. Stone, Strode of Nebraska, Sturtevant, Sulloway, Tawney, Tayler of Ohio, Tongue, Updegraff, Van Voorhis, Wadsworth, Walker of Massachusetts, Walker of Virginia, Wanger, Ward, Weaver, Wheeler of Alabama, White of Illinois, Williams of Pennsylvania, Wise, Young—181.

NAYS—Adamson, Bailey, Baker of Illinois, Ball, Bankhead, Barlow, Bartlett, Bell, Benner of Pennsylvania, Benton, Berry, Bland, Bodine, Botkin, Bradley, Brantley, Brenner of Ohio, Brewer, Broussard, Brucker, Brundidge, Burke, Carmack, Castle, Clardy, Clark of Missouri, Clayton, Cochran of Missouri, Cooney, Cooper of Texas, Cowherd, Cox, Davey, Davis, De Armond, De Graffenreid, De Vries, Dinsmore, Dockery, Elliott, Fitzpatrick, Fleming, Fowler of North Carolina, Fox, Gaines, Greene, Griffith, Griggs, Gunn, Handy, Hartman, Hay, Henry of Mississippi, Henry of Texas, Howard of Alabama, Howard of Georgia, Hunter, Jones of Virginia, Jones of Washington, Kelley, King, Kitchin, Kleberg, Knowles, Lamb, Lanham, Latimer, Lentz, Lester, Lewis of Georgia, Lewis of Washington, Linney, Little, Livingston, Lloyd, Love, McCormick, McCulloch, McDowell, McMillin, McRae, Maddox, Maguire, Martin, Maxwell, Meyer of Louisiana, Miers of Indiana, Moon, Norton of Ohio, Norton of South Carolina, Ogden, Osborne, Otey, Peters, Pierce of Tennessee, Rhea, Richardson, Ridgely, Rixey, Robb, Robertson of Louisiana, Robinson of Indiana, Sayers, Settle, Shafroth, Shuford, Simpson, Sims, Skinner, Slayden, Smith of Kentucky, Sparkman, Stallings, Stark, Stephens of Texas, Stokes, Strowd of North Carolina, Sullivan, Sulzer, Sutherland, Swanson, Talbert, Taylor of Alabama, Thorp, Underwood, Vandiver, Vehslage, Vincent, Wheeler of Kentucky, Wilson, Zenor—181.

ANSWERED "PRESENT"—Baird—1.

NOT VOTING—Allen, Barber, Barrett, Brosius, Campbell, Catchings, Clarke of New Hampshire, Cochrane of New York, Coddling, Colson, Connolly, Cranford, Davenport, Ermentrout, Gillett of Massachusetts, Hinrichsen, Hurley, Jett, Lorimer, Mahany, Mann, Marshall, Meekison, Newlands, Odell, Packer of Pennsylvania, Pearson, Perkins, Prince, Quigg, Shelden, Snover, Strait, Tate, Terry, Todd, Warner, Weymouth, White of North Carolina, Wilber, Williams of Mississippi, Yost—42.

The bill was reported back from the Finance Committee in the Senate, May 12, with many amendments, some of which were of great importance and became the subject of long discussion. One such amendment was a provision for levying an excise tax on corporations, which brought up the income-tax issue, and led to a renewal of the controversy on the constitutionality of an income tax. The proposition, varied in many forms, was defeated, except as to those corporations engaged in refining sugar and petroleum. Another such amendment was the provision to issue \$150,000,000 of legal-tender notes, instead of interest-bearing bonds. This brought on a renewal of the old controversy over increasing the legal-tender paper of the Government and the scheme for issuing bonds to retire those already in circulation; but the bond provision in the House bill was retained, though the limit to the bond issue was reduced. An amendment providing for postal savings banks was rejected also. The tonnage tax was stricken out; a succession tax on personal property was adopted; a duty was levied on tea; a tax was put upon mixed flour; and a provision for the coinage of the silver seigniorage in the Treasury,

and the issue of silver certificates in anticipation of such coinage, was incorporated in the bill. The last amendment brought on a renewal of the well-worn controversy as to gold and silver. It would be useless to reproduce the discussion on any of these themes, each one of which has been so often the matter directly at issue, and is likely to become so again; and it is enough to say that the division of the Senate over the measure was on a sharply drawn line between the policy of increasing the revenue moderately and borrowing heavily on 3-per-cent. bonds, and the policy of increasing the revenue heavily and supplying deficiencies by coinage of silver and the issue of notes not bearing interest. The measure passed the senate, June 4, by the following vote:

YEAS—Aldrich, Allison, Baker, Burrows, Caffery, Carter, Chandler, Clark, Davis, Deboe, Elkins, Fairbanks, Foraker, Frye, Gallinger, Gear, Gorman, Hale, Hanna, Hansbrough, Hawley, Hoar, Kyle, Lindsay, Lodge, McBride, McNery, McMillan, Mantle, Mason, Mitchell, Morrill, Murphy, Nelson, Perkins, Platt of Connecticut, Platt of New York, Pritchard, Sewell, Shoup, Spooner, Thurston, Turpie, Warren, Wellington, Wetmore, Wilson, Wolcott—48.

NAYS—Allen, Bacon, Bate, Berry, Butler, Cannon, Chilton, Clay, Cockrell, Daniel, Harris, Heitfeld, Jones of Arkansas, Jones of Nevada, McLaurin, Mallory, Martin, Money, Pasco, Pettigrew, Pettus, Rawlins, Roach, Stewart, Sullivan, Tillman, Turley, White—28.

NOT VOTING—Cullom, Faulkner, Gray, Kenney, Mills, Morgan, Penrose, Proctor, Quay, Smith, Teller, Turner, Vest—13.

The House of Representatives non-concurred in the Senate amendments, and a conference committee was appointed which made a compromise report, in which the amendments specially noted above were accepted with qualifications. The provision as to issuing silver certificates was struck out of the amendment for coining the silver seigniorage, and it was enacted that the silver bullion in the Treasury should be coined at the rate of not less than \$1,500,000 a month. The bill as shaped by the conference committee was accepted by both Houses, and was approved by the President, June 13, 1898.

The text of the measure is as follows:

"Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That there shall be paid, in lieu of the tax of one dollar now imposed by law, a tax of two dollars on all beer, lager beer, ale, porter, and other similar fermented liquors, brewed or manufactured and sold, or stored in warehouse, or removed for consumption or sale, within the United States, by whatever name such liquors may be called, for every barrel containing not more than thirty-one gallons; and at a like rate for any other quantity or for the fractional parts of a barrel authorized and defined by law. And section thirty-three hundred and thirty-nine of the Revised Statutes is hereby amended accordingly: *Provided,* That a discount of seven and one half per centum shall be allowed upon all sales by collectors to brewers of the stamps provided for the payment of said tax: *Provided further,* That the additional tax imposed in this section on all fermented liquors stored in warehouse to which a stamp had been affixed shall be assessed and collected in the manner now provided by law for the collection of taxes not paid by stamps.

"SPECIAL TAXES.

"Sec. 2. That from and after July first, eighteen hundred and ninety-eight, special taxes shall be,

and hereby are, imposed annually as follows; that is to say:

"One. Bankers using or employing a capital not exceeding the sum of twenty-five thousand dollars shall pay fifty dollars; when using or employing a capital exceeding twenty-five thousand dollars, for every additional thousand dollars in excess of twenty-five thousand dollars, two dollars, and in estimating capital surplus shall be included. The amount of such annual tax shall in all cases be computed on the basis of the capital and surplus for the preceding fiscal year. Every person, firm, or company, and every incorporated or other bank, having a place of business where credits are opened by the deposit or collection of money or currency, subject to be paid or remitted upon draft, check, or order, or where money is advanced or loaned on stocks, bonds, bullion, bills of exchange, or promissory notes, or where stocks, bonds, bullion, bills of exchange, or promissory notes are received for discount or sale, shall be a banker under this act: *Provided,* That any savings bank having no capital stock, and whose business is confined to receiving deposits and loaning or investing the same for the benefit of its depositors, and which does no other business of banking, shall not be subject to this tax.

"Two. Brokers shall pay fifty dollars. Every person, firm, or company, whose business it is to negotiate purchases or sales of stocks, bonds, exchange, bullion, coined money, bank notes, promissory notes, or other securities for themselves or others, shall be regarded as a broker: *Provided,* That any person having paid the special tax as a banker shall not be required to pay the special tax as a broker.

"Three. Pawnbrokers shall pay twenty dollars. Every person, firm, or company whose business or occupation it is to take or receive, by way of pledge, pawn, or exchange, any goods, wares, or merchandise, or any kind of personal property whatever, as security for the repayment of money loaned thereon, shall be deemed a pawnbroker.

"Four. Commercial brokers shall pay twenty dollars. Every person, firm, or company, whose business it is as a broker to negotiate sales or purchases of goods, wares, produce, or merchandise, or to negotiate freights and other business for the owners of vessels, or for the shippers or consignors or consignees of freight carried by vessels, shall be regarded as a commercial broker under this act.

"Five. Customhouse brokers shall pay ten dollars. Every person, firm, or company whose occupation it is, as the agent of others, to arrange entries and other customhouse papers, or transact business at any port of entry relating to the importation or exportation of goods, wares, or merchandise, shall be regarded as a customhouse broker.

"Six. Proprietors of theaters, museums, and concert halls in cities having more than twenty-five thousand population, as shown by the last preceding United States census, shall pay one hundred dollars. Every edifice used for the purpose of dramatic or operatic or other representations, plays, or performances, for admission to which entrance money is received, not including halls rented or used occasionally for concerts or theatrical representations, shall be regarded as a theater: *Provided,* That whenever any such edifice is under lease at the passage of this act, the tax shall be paid by the lessee, unless otherwise stipulated between the parties to said lease.

"Seven. The proprietor or proprietors of circuses shall pay one hundred dollars. Every building, space, tent, or area where feats of horsemanship or acrobatic sports or theatrical performances are exhibited shall be regarded as a circus: *Provided,*

That no special tax paid in one State, Territory, or the District of Columbia shall exempt exhibitions from the tax in another State, Territory, or the District of Columbia, and but one special tax shall be imposed for exhibitions within any one State, Territory, or District.

"Eight. Proprietors or agents of all other public exhibitions or shows for money not enumerated in this section shall pay ten dollars: *Provided*, That a special tax paid in one State, Territory, or the District of Columbia shall not exempt exhibitions from the tax in another State, Territory, or the District of Columbia, and but one special tax shall be required for exhibitions within any one State, Territory, or the District of Columbia.

"Nine. Proprietors of bowling alleys and billiard rooms shall pay five dollars for each alley or table. Every building or place where bowls are thrown or where games of billiards or pool are played, and that are open to the public with or without price, shall be regarded as a bowling alley or a billiard room, respectively.

"TOBACCO, CIGARS, CIGARETTES, AND SNUFF.

"SEC. 3. That there shall, in lieu of the tax now imposed by law, be levied and collected a tax of twelve cents per pound upon all tobacco and snuff, however prepared, manufactured, and sold, or removed for consumption or sale; and upon cigars and cigarettes which shall be manufactured and sold, or removed for consumption or sale, there shall be levied and collected the following taxes, to be paid by the manufacturer thereof, namely a tax of three dollars and sixty cents per thousand on cigars of all descriptions made of tobacco, or any substitute therefor, and weighing more than three pounds per thousand, and of one dollar per thousand on cigars made of tobacco or any substitute therefor, and weighing not more than three pounds per thousand; and a tax of three dollars and sixty cents per thousand on cigarettes made of tobacco or any substitute therefor, and weighing more than three pounds per thousand; and one dollar and fifty cents per thousand on cigarettes made of tobacco or any substitute therefor, and weighing not more than three pounds per thousand: *Provided*, That in lieu of the two-three- and four-ounce packages of tobacco and snuff now authorized by law, there may be packages thereof containing one and two third ounces, two and one half ounces, and three and one third ounces, respectively, and in addition to packages now authorized by law, there may be packages containing one ounce of smoking tobacco.

"And there shall also be assessed and collected with the exceptions hereinafter in this section provided for upon all the articles enumerated in this section which were manufactured, imported, and removed from factory or customhouse before the passage of this act, bearing tax stamps affixed to such articles for the payment of the taxes thereon, and canceled subsequent to April 14, 1898, and which articles were at the time of the passage of this act held and intended for sale by any person, a tax equal to one half the difference between the tax already paid on such articles at the time of removal from the factory or customhouse and the tax levied in this act upon such articles.

"Every person having on the day succeeding the date of the passage of this act any of the above-described articles on hand for sale in excess of one thousand pounds of manufactured tobacco and twenty thousand cigars or cigarettes, and which have been removed from the factory where produced or the customhouse through which imported, bearing the rate of tax payable thereon at the time of such removal, shall make a full and true return under oath in duplicate of the quantity thereof,

in pounds as to the tobacco and snuff, and in thousands as to the cigars and cigarettes so held on that day, in such form and under such regulations as the Commissioner of Internal Revenue, with the approval of the Secretary of the Treasury, may prescribe. Such returns shall be made and delivered to the collector or deputy collector for the proper internal-revenue district within thirty days after the passage of this act. One of said returns shall be retained by the collector and the other forwarded to the Commissioner of Internal Revenue, together with the assessment list for the month in which the return is received, and the Commissioner of Internal Revenue shall assess and collect the taxes, found to be due, as other taxes not paid by stamps are assessed and collected.

"And for the expense connected with the assessment and collection of the taxes provided by this act there is hereby appropriated the sum of one hundred thousand dollars, or so much thereof as may be required, out of any moneys in the Treasury not otherwise appropriated, for the employment of such deputy collectors and other employees in the several collection districts in the United States, and such clerks and employees in the Bureau of Internal Revenue as may in the discretion of the Commissioner of Internal Revenue be necessary for a period not exceeding one year, to be compensated for their services by such allowances as shall be made by the Secretary of the Treasury, upon the recommendation of the Commissioner of Internal Revenue. And the Commissioner of Internal Revenue is authorized to employ ten agents, to be known and designated as internal-revenue agents, in addition to the number now authorized in section thirty-one hundred and fifty-two of the Revised Statutes as amended, and the existing provisions of law in all other respects shall apply to the duties, compensation, and expenses of such agents.

"TOBACCO DEALERS AND MANUFACTURERS.

"SEC. 4. That from and after July first, eighteen hundred and ninety-eight, special taxes on tobacco dealers and manufacturers shall be and hereby are imposed annually, as follows, the amount of such annual taxes to be computed in all cases on the basis of the annual sales for the preceding fiscal year:

"Dealers in leaf tobacco whose annual sales do not exceed fifty thousand pounds shall each pay six dollars. Dealers in leaf tobacco whose annual sales exceed fifty thousand and do not exceed one hundred thousand pounds shall pay twelve dollars, and if their annual sales exceed one hundred thousand pounds shall pay twenty-four dollars.

"Dealers in tobacco whose annual sales exceed fifty thousand pounds shall each pay twelve dollars.

"Every person whose business it is to sell, or offer for sale, manufactured tobacco, snuff, or cigars shall be regarded as a dealer in tobacco: *Provided*, That no manufacturer of tobacco, snuff, or cigars shall be required to pay a special tax as dealer in manufactured tobacco and cigars for selling his own products at the place of manufacture.

"Manufacturers of tobacco whose annual sales do not exceed fifty thousand pounds shall each pay six dollars.

"Manufacturers of tobacco whose annual sales exceed fifty thousand and do not exceed one hundred thousand pounds shall each pay twelve dollars.

"Manufacturers of tobacco whose annual sales exceed one hundred thousand pounds shall each pay twenty-four dollars.

"Manufacturers of cigars whose annual sales do not exceed one hundred thousand cigars shall each pay six dollars.

"Manufacturers of cigars whose annual sales exceed one hundred thousand and do not exceed two hundred thousand cigars shall each pay twelve dollars.

"Manufacturers of cigars whose annual sales exceed two hundred thousand cigars shall each pay twenty-four dollars.

"And every person who carries on any business or occupation for which special taxes are imposed by this act, without having paid the special tax herein provided, shall, besides being liable to the payment of such special tax, be deemed guilty of a misdemeanor, and upon conviction thereof shall pay a fine of not more than five hundred dollars, or be imprisoned not more than six months, or both, at the discretion of the court.

"Sec. 5. Until appropriate stamps are prepared and furnished, the stamps heretofore used to denote the payment of the internal-revenue tax on fermented liquors, tobacco, snuff, cigars, and cigarettes may be stamped or imprinted with a suitable device to denote the new rate of tax, and shall be affixed to all packages containing such articles on which the tax imposed by this act is paid. And any person having possession of unaffixed stamps heretofore issued for the payment of the tax upon fermented liquors, tobacco, snuff, cigars, or cigarettes shall present the same to the collector of the district, who shall receive them at the price paid for such stamps by the purchasers and issue in lieu thereof new or imprinted stamps at the rate provided by this act.

"ADHESIVE STAMPS.

"Sec. 6. That on and after the first day of July, eighteen hundred and ninety-eight, there shall be levied, collected, and paid, for and in respect of the several bonds, debentures, or certificates of stock and of indebtedness, and other documents, instruments, matters, and things mentioned and described in Schedule A of this act, or for or in respect of the vellum, parchment, or paper upon which such instruments, matters, or things, or any of them, shall be written or printed by any person or persons, or party who shall make, sign, or issue the same, or for whose use or benefit the same shall be made, signed, or issued, the several taxes or sums of money set down in figures against the same, respectively, or otherwise specified or set forth in the said schedule.

"And there shall also be levied, collected, and paid, for and in respect to the medicines, preparations, matters, and things mentioned and described in Schedule B of this act, manufactured, sold, or removed for sale, the several taxes or sums of money set down in words or figures against the same, respectively, or otherwise specified or set forth in Schedule B of this act.

"Sec. 7. That if any person or persons shall make, sign, or issue, or cause to be made, signed, or issued, any instrument, document, or paper of any kind or description whatsoever, without the same being duly stamped for denoting the tax hereby imposed thereon, or without having thereupon an adhesive stamp to denote said tax, such person or persons shall be deemed guilty of a misdemeanor, and upon conviction thereof shall pay a fine of not more than one hundred dollars, at the discretion of the court, and such instrument, document, or paper, as aforesaid, shall not be competent evidence in any court.

"Sec. 8. That if any person shall forge or counterfeit, or cause or procure to be forged or counterfeited, any stamp, die, plate, or other instrument, or any part of any stamp, die, plate or other instrument, which shall have been provided, or may hereafter be provided, made, or used in pursuance of this act, or shall forge, counterfeit, or resemble, or

cause or procure to be forged, counterfeited, or resembled, the impression, or any part of the impression, of any such stamp, die, plate, or other instrument as aforesaid, upon any vellum, parchment or paper, or shall stamp or mark, or cause or procure to be stamped or marked, any vellum, parchment, or paper with any such forged or counterfeited stamp, die, plate, or other instrument, or part of any stamp, die, plate, or other instrument, as aforesaid, with intent to defraud the United States of any of the taxes hereby imposed, or any part thereof; or if any person shall utter or sell, or expose for sale, any vellum, parchment, paper, article, or thing having thereupon the impression of any such counterfeited stamp, die, plate, or other instrument, or any part of any stamp, die, plate, or other instrument, or any such forged, counterfeited, or resembled impression, or part of impression, as aforesaid, knowing the same to be forged, counterfeited, or resembled; or if any person shall knowingly use or permit the use of any stamp, die, plate, or other instrument which shall have been so provided, made, or used as aforesaid, with intent to defraud the United States; or if any person shall fraudulently cut, tear, or remove, or cause or procure to be cut, torn, or removed, the impression of any stamp, die, plate, or other instrument which shall have been provided, made or used in pursuance of this act from any vellum, parchment, or paper, or any instrument or writing charged or chargeable with any of the taxes imposed by law; or if any person shall fraudulently use, join, fix, or place, or cause to be used, joined, fixed, or placed, to, with, or upon any vellum, parchment, paper, or any instrument or writing charged or chargeable with any of the taxes hereby imposed, any adhesive stamp, or the impression of any stamp, die, plate, or other instrument, which shall have been provided, made, or used in pursuance of law, and which shall have been cut, torn, or removed from any other vellum, parchment, or paper, or any instrument or writing charged or chargeable with any of the taxes imposed by law; or if any person shall willfully remove or cause to be removed, alter or cause to be altered, the canceling or defacing marks of any adhesive stamp with intent to use the same, or to cause the use of the same, after it shall have been once used, or shall knowingly or willfully sell or buy such washed or restored stamp, or offer the same for sale, or give or expose the same to any person for use, or knowingly use the same, or prepare the same with intent for the further use thereof; or if any person shall knowingly and without lawful excuse (the proof whereof shall lie on the person accused) have in his possession any washed, restored, or altered stamp which has been removed from any vellum, parchment, paper, instrument, or writing, then, and in every such case, every person so offending, and every person knowingly and willfully aiding, abetting, or assisting in committing any such offenses as aforesaid shall be deemed guilty of a misdemeanor, and, upon conviction thereof, shall forfeit the said counterfeit stamps and the articles upon which they are placed, and shall be punished by fine not exceeding one thousand dollars, or by imprisonment and confinement at hard labor not exceeding five years, or both, at the discretion of the court.

"Sec. 9. That in any and all cases where an adhesive stamp shall be used for denoting any tax imposed by this act, except as hereinafter provided, the person using or affixing the same shall write or stamp thereon the initials of his name and the date upon which the same shall be attached or used, so that the same may not again be used. And if any person shall fraudulently make use of an adhesive stamp to denote any tax imposed by this act with-

out so effectually canceling and obliterating such stamp, except as before mentioned, he, she, or they shall be deemed guilty of a misdemeanor, and upon conviction thereof shall pay a fine of not less than fifty nor more than five hundred dollars, or be imprisoned not more than six months, or both, at the discretion of the court: *Provided*, That any proprietor or proprietors of proprietary articles, or articles subject to stamp duty under Schedule B of this act, shall have the privilege of furnishing, without expense to the United States, in suitable form, to be approved by the Commissioner of Internal Revenue, his or their own dies or designs for stamps to be used thereon, to be retained in the possession of the Commissioner of Internal Revenue, for his or their separate use, which shall not be duplicated to any other person. And the proprietor furnishing such dies or designs shall be required to purchase stamps printed therefrom in quantities of not less than two thousand dollars face value at any one time. That in all cases where such stamp is used, instead of cancellation by initials and date, the said stamp shall be so affixed on the box, bottle, or package that in opening the same, or using the contents thereof, the said stamp shall be effectually destroyed; and in default thereof the party making default shall be liable to the same penalty imposed for neglect to affix said stamp as hereinbefore prescribed in this act. Any person who shall fraudulently obtain or use any of the aforesaid stamps or designs therefor, and any person forging or counterfeiting, or causing or procuring the forging or counterfeiting, any representation, likeness, similitude, or colorable imitation of the said last-mentioned stamp, or any engraver or printer who shall sell or give away said stamps, or selling the same, or, being a merchant, broker, peddler, or person dealing, in whole or in part, in similar goods, wares, merchandise, manufactures, preparations, or articles, or those designed for similar objects or purposes, shall have knowingly or fraudulently in his, her, or their possession any such forged, counterfeited likeness, similitude, or colorable imitation of the said last-mentioned stamp, shall be deemed guilty of a crime, and, upon conviction thereof, shall be punished by a fine not exceeding five hundred dollars or imprisonment not exceeding one year, or both.

"Sec. 10. That if any person or persons shall make, sign, or issue, or cause to be made, signed, or issued, or shall accept or pay, or cause to be accepted or paid, with design to evade the payment of any stamp tax, any bill of exchange, draft, or order, or promissory note for the payment of money, liable to any of the taxes imposed by this act, without the same being duly stamped, or having thereupon an adhesive stamp for denoting the tax hereby charged thereon, he, she, or they shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be punished by a fine not exceeding two hundred dollars, at the discretion of the court.

"Sec. 11. That the acceptor or acceptors of any bill of exchange or order for the payment of any sum of money drawn, or purporting to be drawn, in any foreign country, but payable in the United States, shall, before paying or accepting the same, place thereupon a stamp, indicating the tax upon the same, as the law requires for inland bills of exchange or promissory notes; and no bill of exchange shall be paid or negotiated without such stamp; and if any person shall pay or negotiate, or offer in payment, or receive or take in payment, any such draft or order, the person or persons so offending shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be punished by a fine not exceeding one hundred dollars, in the discretion of the court.

"Sec. 12. That in any collection district where, in the judgment of the Commissioner of Internal Revenue, the facilities for the procurement and distribution of adhesive stamps are or shall be insufficient, the commissioner, as aforesaid, is authorized to furnish, supply, and deliver to the collector of any district, and to any assistant treasurer of the United States or designated depository thereof, or any postmaster, a suitable quantity of adhesive stamps, without prepayment therefor, and may in advance require of any collector, assistant treasurer of the United States, or postmaster, a bond with sufficient sureties, to an amount equal to the value of the adhesive stamps which may be placed in his hands and remain unaccounted for, conditioned for the faithful return, whenever so required, of all quantities or amounts undisposed of, and for the payment monthly of all quantities or amounts sold or not remaining on hand. And it shall be the duty of such collector to supply his deputies with, or sell to other parties within his district who may make application therefor, adhesive stamps, upon the same terms allowed by law or under the regulations of the Commissioner of Internal Revenue, who is hereby authorized to make such other regulations, not inconsistent herewith, for the security of the United States and the better accommodation of the public, in relation to the matters hereinbefore mentioned, as he may judge necessary and expedient. And the Secretary of the Treasury may from time to time make such regulations as he may find necessary to insure the safe keeping or prevent the illegal use of all such adhesive stamps.

"Sec. 13. That any person or persons who shall register, issue, sell, or transfer, or who shall cause to be issued, registered, sold, or transferred, any instrument, document, or paper of any kind or description whatsoever mentioned in Schedule A of this act, without the same being duly stamped, or having thereupon an adhesive stamp for denoting the tax chargeable thereon, and canceled in the manner required by law, with intent to evade the provisions of this act, shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be punished by a fine not exceeding fifty dollars, or by imprisonment not exceeding six months, or both, in the discretion of the court; and such instrument, document, or paper, not being stamped according to law, shall be deemed invalid and of no effect: *Provided*, That hereafter, in all cases where the party has not affixed to any instrument the stamp required by law thereon at the time of issuing, selling, or transferring the said bonds, debentures, or certificates of stock or of indebtedness, and he or they, or any party having an interest therein, shall be subsequently desirous of affixing such stamp to said instrument, or, if said instrument be lost, to a copy thereof, he or they shall appear before the collector of internal revenue of the proper district, who shall, upon the payment of the price of the proper stamp required by law, and of a penalty of ten dollars, and, where the whole amount of the tax denoted by the stamp required shall exceed the sum of fifty dollars, on payment also of interest, at the rate of six per centum, on said tax from the day on which such stamp ought to have been affixed, affix the proper stamp to such bond, debenture, certificate of stock or of indebtedness or copy, and note upon the margin thereof the date of his so doing and the fact that such penalty has been paid; and the same shall thereupon be deemed and held to be as valid, to all intents and purposes, as if stamped when made or issued: *And provided further*, That where it shall appear to said collector, upon oath or otherwise, to his satisfaction, that any such instrument has not been duly stamped, at the time of making or issuing the same, by reason of accident, mistake,

inadvertence, or urgent necessity, and without any willful design to defraud the United States of the stamp, or to evade or delay the payment thereof, then and in such case, if such instrument, or, if the original be lost, a copy thereof, duly certified by the officer having charge of any records in which such original is required to be recorded, or otherwise duly proven to the satisfaction of the collector, shall, within twelve calendar months after the making or issuing thereof, be brought to the said collector of internal revenue to be stamped, and the stamp tax chargeable thereon shall be paid, it shall be lawful for the said collector to remit the penalty aforesaid and to cause such instrument to be duly stamped. And when the original instrument, or a certified or duly proven copy thereof, as aforesaid, duly stamped so as to entitle the same to be recorded, shall be presented to the clerk, register, recorder, or other officer having charge of the original record, it shall be lawful for such officer, upon the payment of the fee legally chargeable for the recording thereof, to make a new record thereof, or to note upon the original record the fact that the error or omission in the stamping of said original instrument has been corrected pursuant to law; and the original instrument or such certified copy, or the record thereof, may be used in all courts and places in the same manner and with like effect as if the instrument had been originally stamped: *And provided further*, That in all cases where the party has not affixed the stamp required by law upon any such instrument issued, registered, sold, or transferred at a time when and at a place where no collection district was established, it shall be lawful for him or them, or any party having an interest therein, to affix the proper stamp thereto, or, if the original be lost, to a copy thereof. But no right acquired in good faith before the stamping of such instrument, or copy thereof, as herein provided, if such record be required by law, shall in any manner be affected by such stamping as aforesaid.

"Sec. 14. That hereafter no instrument, paper, or document required by law to be stamped, which has been signed or issued without being duly stamped, or with a deficient stamp, nor any copy thereof, shall be recorded or admitted, or used as evidence in any court until a legal stamp or stamps, denoting the amount of tax, shall have been affixed thereto, as prescribed by law: *Provided*, That any bond, debenture, certificate of stock, or certificate of indebtedness issued in any foreign country shall pay the same tax as is required by law on similar instruments when issued, sold, or transferred in the United States; and the party to whom the same is issued, or by whom it is sold or transferred, shall, before selling or transferring the same, affix thereon the stamp or stamps indicating the tax required.

"Sec. 15. That it shall not be lawful to record or register any instrument, paper, or document required by law to be stamped unless a stamp or stamps of the proper amount shall have been affixed and canceled in the manner prescribed by law; and the record, registry, or transfer of any such instruments upon which the proper stamp or stamps aforesaid shall not have been affixed and canceled as aforesaid shall not be used in evidence.

"Sec. 16. That no instrument, paper, or document required by law to be stamped shall be deemed or held invalid and of no effect for the want of a particular kind or description of stamp designated for and denoting the tax charged on any such instrument, paper, or document, provided a legal documentary stamp or stamps denoting a tax of equal amount shall have been duly affixed and used thereon.

"Sec. 17. That all bonds, debentures, or certificates of indebtedness issued by the officers of the United

States Government, or by the officers of any State, county, town, municipal corporation, or other corporation exercising the taxing power, shall be, and hereby are, exempt from the stamp taxes required by this act: *Provided*, That it is the intent hereby to exempt from the stamp taxes imposed by this act such State, county, town, or other municipal corporations in the exercise only of functions strictly belonging to them in their ordinary governmental, taxing, or municipal capacity: *Provided further*, That stock and bonds issued by co-operative building and loan associations whose capital stock does not exceed ten thousand dollars, and building and loan associations or companies that make loans only to their shareholders, shall be exempt from the tax herein provided.

"Sec. 18. That on and after the first day of July, eighteen hundred and ninety-eight, no telegraph company or its agent or employee shall transmit to any person any dispatch or message without an adhesive stamp, denoting the tax imposed by this act, being affixed to a copy thereof, or having the same stamped thereupon, and in default thereof shall incur a penalty of ten dollars: *Provided*, That only one stamp shall be required on each dispatch or message, whether sent through one or more companies: *Provided*, That the messages or dispatches of the officers and employees of any telegraph or telephone company concerning the affairs and service of the company, and like messages or dispatches of the officials and employees of railroad companies sent over the wires on their respective railroads, shall be exempt from this requirement: *Provided further*, That messages of officers and employees of the Government on official business shall be exempt from the taxes herein imposed upon telegraphic and telephonic messages.

"Sec. 19. That all the provisions of this act relating to dies, stamps, adhesive stamps, and stamp taxes shall extend to and include (except where manifestly inapplicable) all articles or objects enumerated in Schedule B, subject to stamp taxes, and apply to the provisions in relation thereto.

"Sec. 20. That on and after the first day of July, eighteen hundred and ninety-eight, any person, firm, company, or corporation that shall make, prepare, and sell, or remove for consumption or sale, drugs, medicines, preparations, compositions, articles, or things, including perfumery and cosmetics, upon which a tax is imposed by this act, as provided for in Schedule B, without affixing thereto an adhesive stamp or label denoting the tax before mentioned shall be deemed guilty of a misdemeanor, and upon conviction thereof shall pay a fine of not more than five hundred dollars, or be imprisoned not more than six months, or both, at the discretion of the court: *Provided*, That no stamp tax shall be imposed upon any uncompounded medicinal drug or chemical, nor upon any medicine sold to or for the use of any person which may be mixed or compounded for said person according to the written recipe or prescription of any practicing physician or surgeon, or which may be put up or compounded for said person by a druggist or pharmacist selling at retail only. The stamp taxes provided for in Schedule B of this act shall apply to all medicinal articles compounded by any formula, published or unpublished, which are put up in style or manner similar to that of patent, trade-mark, or proprietary medicine in general, or which are advertised on the package or otherwise as remedies or specifics for any ailment, or as having any special claim to merit, or to any peculiar advantage in mode of preparation, quality, use, or effect.

"Sec. 21. That any manufacturer or maker of any of the articles for sale mentioned in Schedule B, after the same shall have been so made, and the

particulars hereinbefore required as to stamps have been complied with, or any other person who shall take off, remove, or detach, or cause, or permit, or suffer to be taken off, or removed, or detached, any stamp, or who shall use any stamp, or any wrapper or cover to which any stamp is affixed, to cover any other article or commodity than that originally contained in such wrapper or cover, with such stamp when first used, with the intent to evade the stamp duties, shall for every such article, respectively, in respect of which any such offense shall be committed, be deemed guilty of a misdemeanor, and upon conviction thereof shall pay a fine of not more than five hundred dollars, or be imprisoned not more than six months, or both, at the discretion of the court, and every such article or commodity as aforesaid shall also be forfeited.

"Sec. 22. That any maker or manufacturer of any of the articles or commodities mentioned in Schedule B, as aforesaid, or any other person who shall sell, send out, remove, or deliver any article or commodity, manufactured as aforesaid, before the tax thereon shall have been fully paid by affixing thereon the proper stamp, as in this act provided, or who shall hide or conceal, or cause to be hidden or concealed, or who shall remove or convey away, or deposit, or cause to be removed or conveyed away from or deposited in any place, any such article or commodity, to evade the tax chargeable thereon, or any part thereof, shall be deemed guilty of a misdemeanor, and upon conviction thereof shall pay a fine of not more than five hundred dollars, or be imprisoned not more than six months, or both, at the discretion of the court, together with the forfeiture of any such article or commodity: *Provided*, That articles upon which stamp taxes are required by this act may, when intended for exportation, be manufactured and sold or removed without having stamps affixed thereto, and without being charged with tax as aforesaid; and every manufacturer or maker of any article as aforesaid, intended for exportation, shall give such bonds and be subject to such rules and regulations to protect the revenue against fraud as may be from time to time prescribed by the Commissioner of Internal Revenue, with the approval of the Secretary of the Treasury.

"Sec. 23. That every manufacturer or maker of any of the articles or commodities provided for in Schedule B, or his foreman, agent, or superintendent shall at the end of each and every month make, sign, and file with the collector of internal revenue for the district in which he resides a declaration in writing that no such article or commodity has, during such preceding month or time when the last declaration was made, been removed, or carried, or sent, or caused or suffered or known to have been removed, carried, or sent from the premises of such manufacturer or maker other than such as have been duly taken account of and charged with the stamp tax, on pain of such manufacturer or maker forfeiting for every refusal or neglect to make such declaration one hundred dollars; and if any such manufacturer or maker, or his foreman, agent, or superintendent, shall make any false or untrue declaration, such manufacturer or maker, or foreman, agent, or superintendent making the same shall be deemed guilty of a misdemeanor, and upon conviction shall pay a fine of not more than five hundred dollars, or be imprisoned not more than six months, or both, at the discretion of the court.

"Sec. 24. That the stamp taxes prescribed in this act on the articles provided for in Schedule B, shall attach to all such articles and things sold or removed for sale on and after the said first day of July, eighteen hundred and ninety-eight. Every person, except as otherwise provided in this act,

who offers or exposes for sale any article or thing provided for in said Schedule B, whether the article so offered or exposed is of foreign manufacture and imported or of domestic manufacture, shall be deemed the manufacturer thereof, and shall be subject to all the taxes, liabilities, and penalties imposed by law for the sale of articles without the use of the proper stamp denoting the tax paid thereon; and all such articles of foreign manufacture shall, in addition to the import duty imposed on the same, be subject to the stamp tax prescribed in this act: *Provided further*, That internal-revenue stamps required by existing law on imported merchandise shall be affixed thereto and canceled at the expense of the owner or importer before the withdrawal of such merchandise for consumption, and the Secretary of the Treasury is authorized to make such rules and regulations as may be necessary for the affixing and canceling of such stamps, not inconsistent herewith.

"Sec. 25. That the Commissioner of Internal Revenue shall cause to be prepared for the payment of the taxes prescribed in this act suitable stamps denoting the tax on the document, article, or thing to which the same may be affixed, and he is authorized to prescribe such method for the cancellation of said stamps, as substitute for or in addition to the method provided in this act, as he may deem expedient. The Commissioner of Internal Revenue, with the approval of the Secretary of the Treasury, is authorized to procure any of the stamps provided for in this act by contract whenever such stamps can not be speedily prepared by the Bureau of Engraving and Printing; but this authority shall expire on the first day of July, eighteen hundred and ninety-nine. That the adhesive stamps used in the payment of the tax levied in Schedules A and B of this act shall be furnished for sale by the several collectors of internal revenue, who shall sell and deliver them at their face value to all persons applying for the same, except officers or employees of the internal-revenue service: *Provided*, That such collectors may sell and deliver such stamps in quantities of not less than one hundred dollars of face value, with a discount of one per centum, except as otherwise provided in this act. And he may, with the approval of the Secretary of the Treasury, make all needful rules and regulations for the proper enforcement of this act.

"SCHEDULE A.—STAMP TAXES.

"Bonds, debentures, or certificates of indebtedness issued after the first day of July, anno Domini eighteen hundred and ninety-eight, by any association, company, or corporation, on each hundred dollars of face value or fraction thereof, five cents, and on each original issue, whether on organization or reorganization, of certificates of stock by any such association, company, or corporation, on each hundred dollars of face value or fraction thereof, five cents, and on all sales, or agreements to sell, or memoranda of sales or deliveries or transfers of shares or certificates of stock in any association, company, or corporation, whether made upon or shown by the books of the association, company, or corporation, or by any assignment in blank, or by any delivery, or by any paper or agreement or memorandum or other evidence of transfer or sale whether entitling the holder in any manner to the benefit of such stock, or to secure the future payment of money or for the future transfer of any stock, on each hundred dollars of face value or fraction thereof, two cents: *Provided*, That in case of sale where the evidence of transfer is shown only by the books of the company the stamp shall be placed upon such books; and where the change of ownership is by transfer certificate the stamp shall

be placed upon the certificate; and in cases of an agreement to sell or where the transfer is by delivery of the certificate assigned in blank there shall be made and delivered by the seller to the buyer a bill or memorandum of such sale, to which the stamp shall be affixed; and every bill or memorandum of sale or agreement to sell before mentioned shall show the date thereof, the name of the seller, the amount of the sale, and the matter or thing to which it refers. And any person or persons liable to pay the tax as herein provided, or any one who acts in the matter as agent or broker for such person or persons, who shall make any such sale, or who shall, in pursuance of any such sale, deliver any such stock, or evidence of the sale of any such stock or bill or memorandum thereof, as herein required, without having the proper stamps affixed thereto, with intent to evade the foregoing provisions shall be deemed guilty of a misdemeanor, and upon conviction thereof shall pay a fine of not less than five hundred nor more than one thousand dollars, or be imprisoned not more than six months, or both, at the discretion of the court.

"Upon each sale, agreement of sale, or agreement to sell, any products or merchandise at any exchange, or board of trade, or other similar place, either for present or future delivery, for each one hundred dollars in value of said sale or agreement of sale or agreement to sell, one cent, and for each additional one hundred dollars or fractional part thereof in excess of one hundred dollars, one cent: *Provided*, That on every sale or agreement of sale or agreement to sell as aforesaid there shall be made and delivered by the seller to the buyer a bill, memorandum, agreement, or other evidence of such sale, agreement of sale, or agreement to sell, to which there shall be affixed a lawful stamp or stamps in value equal to the amount of the tax on such sale. And every such bill, memorandum, or other evidence of sale or agreement to sell shall show the date thereof, the name of the seller, the amount of the sale, and the matter or thing to which it refers; and any person or persons liable to pay the tax as herein provided, or any one who acts in the matter as agent or broker for such person or persons, who shall make any such sale or agreement of sale, or agreement to sell, or who shall, in pursuance of any such sale, agreement of sale, or agreement to sell, deliver any such products or merchandise without a bill, memorandum, or other evidence thereof as herein required, or who shall deliver such bill, memorandum, or other evidence of sale, or agreement to sell, without having the proper stamps affixed thereto, with intent to evade the foregoing provisions, shall be deemed guilty of a misdemeanor, and upon conviction thereof shall pay a fine of not less than five hundred nor more than one thousand dollars, or be imprisoned not more than six months, or both at the discretion of the court.

"Bank check, draft, or certificate of deposit not drawing interest, or order for the payment of any sum of money, drawn upon or issued by any bank, trust company, or any person or persons, companies, or corporations at sight or on demand, two cents.

"Bill of exchange (inland), draft, certificate of deposit, drawing interest, or order for the payment of any sum of money, otherwise than at sight or on demand, or any promissory note except bank notes issued for circulation, and for each renewal of the same, for a sum not exceeding one hundred dollars, two cents; and for each additional one hundred dollars or a fractional part thereof in excess of one hundred dollars, two cents. And from and after the first day of July, eighteen hundred and ninety-eight, the provisions of this paragraph shall apply as well to original domestic money orders issued

by the Government of the United States, and the price of such money orders shall be increased by a sum equal to the value of the stamps herein provided for.

"Bill of exchange (foreign) or letter of credit (including orders by telegraph or otherwise for the payment of money issued by express or other companies or any person or persons), drawn in but payable out of the United States, if drawn singly or otherwise than in a set of three or more, according to the custom of merchants and bankers, shall pay for a sum not exceeding one hundred dollars, four cents, and for each one hundred dollars or fractional part thereof in excess of one hundred dollars, four cents.

"If drawn in sets of two or more: For every bill of each set, where the sum made payable shall not exceed one hundred dollars, or the equivalent thereof, in any foreign currency in which such bill may be expressed, according to the standard of value fixed by the United States, two cents; and for each one hundred dollars or fractional part thereof in excess of one hundred dollars, two cents.

"Bills of lading or receipt (other than charter party) for any goods, merchandise, or effects, to be exported from a port or place in the United States to any foreign port or place, ten cents.

"Express and freight: It shall be the duty of every railroad or steamboat company, carrier, express company, or corporation or person whose occupation it is to act as such, to issue to the shipper or consignor, or his agent, or person from whom any goods are accepted for transportation, a bill of lading, manifest, or other evidence of receipt and forwarding for each shipment received for carriage and transportation, whether in bulk or in boxes, bales, packages, bundles, or not so inclosed or included; and there shall be duly attached and canceled, as is in this act provided, to each of said bills of lading, manifests or other memorandum, and to each duplicate thereof, a stamp of the value of one cent: *Provided*, That but one bill of lading shall be required on bundles or packages of newspapers when inclosed in one general bundle at the time of shipment. Any failure to issue such bill of lading, manifest, or other memorandum, as herein provided, shall subject such railroad or steamboat company, carrier, express company, or corporation or person to a penalty of fifty dollars for each offense, and no such bill of lading, manifest, or other memorandum shall be used in evidence unless it shall be duly stamped as aforesaid.

"Telephone messages: It shall be the duty of every person, firm, or corporation owning or operating any telephone line or lines to make within the first fifteen days of each month a sworn statement to the collector of internal revenue in each of their respective districts, stating the number of messages or conversations transmitted over their respective lines during the preceding month for which a charge of fifteen cents or more was imposed, and for each of such messages or conversations the said person, firm, or corporation shall pay a tax of one cent: *Provided*, That only one payment of said tax shall be required, notwithstanding the lines of one or more persons, firms, or corporations shall be used for the transmission of each of said messages or conversations.

"Bond: For indemnifying any person or persons, firm, or corporation who shall have become bound or engaged as surety for the payment of any sum of money, or for the due execution or performance of the duties of any office or position, and to account for money received by virtue thereof, and all other bonds of any description, except such as may be required in legal proceedings, not otherwise provided for in this schedule, fifty cents.

"Certificate of profits, or any certificate or memorandum showing an interest in the property or accumulations of any association, company, or corporation, and on all transfers thereof, on each one hundred dollars of face value or fraction thereof, two cents.

"Certificate: Any certificate of damage, or otherwise, and all other certificates or documents issued by any port warden, marine surveyor, or other person acting as such, twenty-five cents.

"Certificate of any description required by law not otherwise specified in this act, ten cents.

"Charter party: Contract or agreement for the charter of any ship, or vessel, or steamer, or any letter, memorandum, or other writing between the captain, master, or owner, or person acting as agent of any ship, or vessel, or steamer, and any other person or persons, for or relating to the charter of such ship, or vessel, or steamer, or any renewal or transfer thereof, if the registered tonnage of such ship, or vessel, or steamer does not exceed three hundred tons, three dollars.

"Exceeding three hundred tons and not exceeding six hundred tons, five dollars.

"Exceeding six hundred tons, ten dollars.

"Contract: Broker's note, or memorandum of sale of any goods or merchandise, stocks, bonds, exchange, notes of hand, real estate, or property of any kind or description issued by brokers or persons acting as such, for each note or memorandum of sale, not otherwise provided for in this act, ten cents.

"Conveyance: Deed, instrument, or writing, whereby any lands, tenements, or other realty sold shall be granted, assigned, transferred, or otherwise conveyed to, or vested in, the purchaser or purchasers, or any other person or persons, by his, her, or their direction, when the consideration or value exceeds one hundred dollars and does not exceed five hundred dollars, fifty cents; and for each additional five hundred dollars or fractional part thereof in excess of five hundred dollars, fifty cents.

"Dispatch, telegraphic: Any dispatch or message, one cent.

"Entry of any goods, wares, or merchandise at any customhouse, either for consumption or warehousing, not exceeding one hundred dollars in value, twenty-five cents.

"Exceeding one hundred dollars and not exceeding five hundred dollars in value, fifty cents.

"Exceeding five hundred dollars in value, one dollar.

"Entry for the withdrawal of any goods or merchandise from customs bonded warehouse, fifty cents.

"Insurance (life): Policy of insurance, or other instrument, by whatever name the same shall be called, whereby any insurance shall hereafter be made upon any life or lives, for each one hundred dollars or fractional part thereof, eight cents on the amount insured: *Provided*, That on all policies, for life insurance only, issued on the industrial or weekly-payment plan of insurance, the tax shall be forty per centum of the amount of the first weekly premium. And it shall be the duty of each person, firm, or corporation issuing such policies to make within the first fifteen days of every month a sworn statement to the collector of internal revenue in each of their respective districts, of the total amount of first weekly premiums received on such policies issued by the said person, firm, or corporation during the preceding month, and upon the total amount so received, the said person, firm, or corporation shall pay the said tax of forty per centum: *Provided further*, That the provisions of this section shall not apply to any fraternal, beneficiary society, or order, or farmers' purely local co-operative com-

pany or association, or employees' relief associations operated on the lodge system, or local co-operation plan, organized and conducted solely by the members thereof for the exclusive benefit of its members and not for profit.

"Insurance (marine, inland, fire): Each policy of insurance or other instrument, by whatever name the same shall be called, by which insurance shall be made or renewed upon property of any description (including rents or profits), whether against peril by sea or on inland waters, or by fire or lightning, or other peril, made by any person, association, or corporation, upon the amount of premium charged, one half of one cent on each dollar or fractional part thereof: *Provided*, That purely co-operative or mutual fire insurance companies carried on by the members thereof solely for the protection of their own property and not for profit shall be exempted from the tax herein provided.

"Insurance (casualty, fidelity, and guarantee): Each policy of insurance, or bond or obligation of the nature of indemnity for loss, damage, or liability issued, or executed, or renewed by any person, association, company, or corporation, transacting the business of accident, fidelity, employer's liability, plate-glass, steam-boiler, burglary, elevator, automatic sprinkler, or other branch of insurance (except life, marine, inland, and fire insurance), and each bond undertaking or recognizance, conditioned for the performance of the duties of any office or position, or for the doing or not doing of anything therein specified, or other obligation of the nature of indemnity, and each contract or obligation guaranteeing the validity or legality of bonds or other obligations issued by any State, county, municipal, or other body or organization, or guaranteeing titles to real-estate or mercantile credits executed or guaranteed by any fidelity, guarantee, or surety company upon the amount of premium charged, one half of one cent on each dollar or fractional part thereof.

"Lease, agreement, memorandum, or contract for the hire, use, or rent of any land, tenement, or portion thereof—

"If for a period of time not exceeding one year, twenty-five cents.

"If for a period of time exceeding one year and not exceeding three years, fifty cents.

"If for a period exceeding three years, one dollar.

"Manifest for customhouse entry or clearance of the cargo of any ship, vessel, or steamer for a foreign port—

"If the registered tonnage of such ship, vessel, or steamer does not exceed three hundred tons, one dollar.

"Exceeding three hundred tons, and not exceeding six hundred tons, three dollars.

"Exceeding six hundred tons, five dollars.

"Mortgage or pledge, of lands, estate, or property, real or personal, heritable, or movable, whatsoever, where the same shall be made as a security for the payment of any definite and certain sum of money, lent at the time or previously due and owing or forborne to be paid, being payable; also any conveyance of any lands, estate, or property whatsoever, in trust to be sold or otherwise converted into money, which shall be intended only as security, either by express stipulation or otherwise; on any of the foregoing exceeding one thousand dollars and not exceeding one thousand five hundred dollars, twenty-five cents; and on each five hundred dollars or fractional part thereof in excess of fifteen hundred dollars, twenty-five cents: *Provided*, That upon each and every assignment or transfer of a mortgage, lease, or policy of insurance, or the renewal or continuance of any agreement,

contract, or charter, by letter or otherwise, a stamp duty shall be required and paid at the same rate as that imposed on the original instrument.

"Passage ticket, by any vessel from a port in the United States to a foreign port, if costing not exceeding thirty dollars, one dollar.

"Costing more than thirty and not exceeding sixty dollars, three dollars.

"Costing more than sixty dollars, five dollars.

"Power of attorney or proxy for voting at any election for officers of any incorporated company or association, except religious, charitable, or literary societies, or public cemeteries, ten cents.

"Power of attorney to sell and convey real estate, or to rent or lease the same, to receive or collect rent, to sell or transfer any stock, bonds, scrip, or for the collection of any dividends or interest thereon, or to perform any and all other acts not hereinbefore specified, twenty-five cents: *Provided*, That no stamps shall be required upon any papers necessary to be used for the collection of claims from the United States for pensions, back pay, bounty, or for property lost in the military or naval service.

"Protest: Upon the protest of every note, bill of exchange, acceptance, check or draft, or any marine protest, whether protested by a notary public or by any other officer who may be authorized by the law of any State or States to make such protest, twenty-five cents.

"Warehouse receipt for any goods, merchandise, or property of any kind held on storage in any public or private warehouse or yard, except receipts for agricultural products deposited by the actual grower thereof in the regular course of trade for sale, twenty-five cents: *Provided*, That the stamp duties imposed by the foregoing schedule on manifests, bills of lading, and passage tickets shall not apply to steamboats or other vessels plying between ports of the United States and ports in British North America.

"SCHEDULE B.

"Medicinal proprietary articles and preparations: For and upon every packet, box, bottle, pot, or phial, or other inclosure, containing any pills, powders, tinctures, troches or lozenges, sirups, cordials, bitters, anodynes, tonics, plasters, liniments, salves, ointments, pastes, drops, waters (except natural spring waters and carbonated natural spring waters), essences, spirits, oils, and all medicinal preparations or compositions whatsoever, made and sold, or removed for sale, by any person or persons whatever, wherein the person making or preparing the same has or claims to have any private formula, secret, or occult art for the making or preparing the same, or has or claims to have any exclusive right or title to the making or preparing the same, or which are prepared, uttered, vended, or exposed for sale under any letters patent, or trade-mark, or which, if prepared by any formula, published or unpublished, are held out or recommended to the public by the makers, venders, or proprietors thereof as proprietary medicines, or medicinal proprietary articles or preparations, or as remedies or specifics for any disease, diseases, or affection whatever affecting the human or animal body, as follows: Where such packet, box, bottle, pot, phial, or other inclosure, with its contents, shall not exceed, at the retail price or value, the sum of five cents, one eighth of one cent.

"Where such packet, box, bottle, pot, phial, or other inclosure, with its contents, shall exceed the retail price or value of five cents and shall not exceed, at the retail price or value, the sum of ten cents, two eighths of one cent.

"Where such packet, box, bottle, pot, phial, or

other inclosure, with its contents, shall exceed the retail price or value of ten cents and shall not exceed at the retail price or value the sum of fifteen cents, three eighths of one cent.

"Where each packet, box, bottle, pot, phial, or other inclosure, with its contents, shall exceed the retail price or value of fifteen cents and shall not exceed the retail price or value of twenty-five cents, five eighths of one cent. And for each additional twenty-five cents of retail price or value or fractional part thereof in excess of twenty-five cents, five eighths of one cent.

"Perfumery and cosmetics and other similar articles: For and upon every packet, box, bottle, pot, phial, or other inclosure containing any essence, extract, toilet water, cosmetic, vaseline, petrolatum, hair oil, pomade, hair dressing, hair restorative, hair dye, tooth wash, dentifrice, tooth paste, aromatic cachous, or any similar substance or article, by whatsoever name the same heretofore have been, now are, or may hereafter be called, known, or distinguished, used or applied, or to be used or applied as perfumes or as applications to the hair, mouth, or skin, or otherwise used, made, prepared, and sold or removed for consumption and sale in the United States, where such packet, box, bottle, pot, phial, or other inclosure, with its contents, shall not exceed at the retail price or value the sum of five cents, one eighth of one cent.

"Where such packet, box, bottle, pot, phial, or other inclosure, with its contents, shall exceed the retail price or value of five cents, and shall not exceed the retail price or value of ten cents, two eighths of one cent.

"Where such packet, box, bottle, pot, phial, or other inclosure, with its contents, shall exceed the retail price or value of ten cents and shall not exceed the retail price or value of fifteen cents, three eighths of one cent.

"Where such packet, box, bottle, pot, phial, or other inclosure, with its contents, shall exceed the retail price or value of fifteen cents and shall not exceed the retail price or value of twenty-five cents, five eighths of one cent. And for each additional twenty-five cents of retail price or value or fractional part thereof in excess of twenty-five cents, five eighths of one cent.

"Chewing gum or substitutes therefor: For and upon each box, carton, jar, or other package containing chewing gum of not more than one dollar of actual retail value, four cents; if exceeding one dollar of retail value, for each additional dollar or fractional part thereof, four cents; under such regulations as the Commissioner of Internal Revenue, with the approval of the Secretary of the Treasury, may prescribe.

"Sparkling or other wines, when bottled for sale, upon each bottle containing one pint or less, one cent.

"Upon each bottle containing more than one pint, two cents.

"That all articles and preparations provided for in this schedule which are in the hands of manufacturers or of wholesale or retail dealers on the first day of July, eighteen hundred and ninety-eight, shall be subject to the payment of the stamp taxes herein provided for, but it shall be deemed a compliance with this act as to such articles on hand in the hands of wholesale or retail dealers as aforesaid who are not the manufacturers thereof to affix the proper adhesive tax stamp at the time the packet, box, bottle, pot, or phial, or other inclosure with its contents is sold at retail.

"SEC. 26. There shall be an allowance of drawback on articles mentioned in Schedule B of this act on which any internal-revenue tax shall have been paid, equal in amount to the stamp tax paid

thereon, and no more, when exported, to be paid by the warrant of the Secretary of the Treasury on the Treasurer of the United States, out of any money arising from internal taxes not otherwise appropriated: *Provided*, That no allowance of drawback shall be made for any such articles exported prior to July first, eighteen hundred and ninety-eight. The evidence that any such tax has been paid as aforesaid shall be furnished to the satisfaction of the Commissioner of Internal Revenue by the person claiming the allowance of drawback, and the amount shall be ascertained under such regulations as shall be prescribed from time to time by said Commissioner, with the approval of the Secretary of the Treasury.

"EXCISE TAXES ON PERSONS, FIRMS, COMPANIES, AND CORPORATIONS ENGAGED IN REFINING PETROLEUM AND SUGAR.

"SEC. 27. That every person, firm, corporation, or company carrying on or doing the business of refining petroleum, or refining sugar, or owning or controlling any pipe line for transporting oil or other products, whose gross annual receipts exceed two hundred and fifty thousand dollars, shall be subject to pay annually a special excise tax equivalent to one quarter of one per centum on the gross amount of all receipts of such persons, firms, corporations, and companies in their respective business in excess of said sum of two hundred and fifty thousand dollars.

"And a true and accurate return of the amount of gross receipts as aforesaid shall be made and rendered monthly by each of such associations, corporations, companies, or persons to the collector of the district in which any such association, corporation, or company may be located, or in which such person has his place of business. Such return shall be verified under oath by the person making the same, or, in case of corporations, by the president or chief officer thereof. Any person or officer failing or refusing to make return as aforesaid, or who shall make a false or fraudulent return, shall be liable to a penalty of not less than one thousand dollars and not exceeding ten thousand dollars for each failure or refusal to make return as aforesaid and for each and every false or fraudulent return.

"SEC. 28. That from and after the first day of July, eighteen hundred and ninety-eight, a stamp tax of one cent shall be levied and collected on every seat sold in a palace or parlor car and on every berth sold in a sleeping car, the stamp to be affixed to the ticket and paid by the company issuing the same.

"LEGACIES AND DISTRIBUTIVE SHARES OF PERSONAL PROPERTY.

"SEC. 29. That any person or persons having in charge or trust, as administrators, executors, or trustees, any legacies or distributive shares arising from personal property, where the whole amount of such personal property as aforesaid shall exceed the sum of ten thousand dollars in actual value, passing, after the passage of this act, from any person possessed of such property, either by will or by the intestate laws of any State or Territory, or any personal property or interest therein, transferred by deed, grant, bargain, sale, or gift, made or intended to take effect in possession or enjoyment after the death of the grantor or bargainer, to any person or persons, or to any body or bodies, politic or corporate, in trust or otherwise, shall be, and hereby are, made subject to a duty or tax, to be paid to the United States, as follows—that is to say: Where the whole amount of said personal property shall exceed in value ten thousand and

shall not exceed in value the sum of twenty-five thousand dollars the tax shall be:

"First. Where the person or persons entitled to any beneficial interest in such property shall be the lineal issue or lineal ancestor, brother, or sister to the person who died possessed of such property, as aforesaid, at the rate of seventy-five cents for each and every hundred dollars of the clear value of such interest in such property.

"Second. Where the person or persons entitled to any beneficial interest in such property shall be the descendant of a brother or sister of the person who died possessed, as aforesaid, at the rate of one dollar and fifty cents for each and every hundred dollars of the clear value of such interest.

"Third. Where the person or persons entitled to any beneficial interest in such property shall be the brother or sister of the father or mother, or a descendant of a brother or sister of the father or mother, of the person who died possessed as aforesaid, at the rate of three dollars for each and every hundred dollars of the clear value of such interest.

"Fourth. Where the person or persons entitled to any beneficial interest in such property shall be the brother or sister of the grandfather or grandmother, or a descendant of the brother or sister of the grandfather or grandmother, of the person who died possessed as aforesaid, at the rate of four dollars for each and every hundred dollars of the clear value of such interest.

"Fifth. Where the person or persons entitled to any beneficial interest in such property shall be in any other degree of collateral consanguinity than is hereinbefore stated, or shall be a stranger in blood to the person who died possessed, as aforesaid, or shall be a body politic or corporate, at the rate of five dollars for each and every hundred dollars of the clear value of such interest: *Provided*, That all legacies or property passing by will, or by the laws of any State or Territory, to husband or wife of the person died possessed, as aforesaid, shall be exempt from tax or duty.

"When the amount or value of said property shall exceed the sum of twenty-five thousand dollars, but shall not exceed the sum or value of one hundred thousand dollars, the rates of duty or tax above set forth shall be multiplied by one and one half; and where the amount or value of said property shall exceed the sum of one hundred thousand dollars, but shall not exceed the sum of five hundred thousand dollars, such rates of duty shall be multiplied by two; and where the amount or value of said property shall exceed the sum of five hundred thousand dollars, but shall not exceed the sum of one million dollars, such rates of duty shall be multiplied by two and one half; and where the amount or value of said property shall exceed the sum of one million dollars, such rates of duty shall be multiplied by three.

"SEC. 30. That the tax or duty aforesaid shall be a lien and charge upon the property of every person who may die as aforesaid for twenty years, or until the same shall, within that period, be fully paid to and discharged by the United States; and every executor, administrator, or trustee, before payment and distribution to the legatees, or any parties entitled to beneficial interest therein, shall pay to the collector or deputy collector of the district of which the deceased person was a resident the amount of the duty or tax assessed upon such legacy or distributive share, and shall also make and render to the said collector or deputy collector a schedule, list, or statement, in duplicate, of the amount of such legacy or distributive share, together with the amount of duty which has accrued, or shall accrue, thereon, verified by his oath or affirmation, to be administered and certified thereon by some magis-

trate or officer having lawful power to administer such oaths, in such form and manner as may be prescribed by the Commissioner of Internal Revenue, which schedule, list, or statement shall contain the names of each and every person entitled to any beneficial interest therein, together with the clear value of such interest, the duplicate of which schedule, list, or statement shall be by him immediately delivered, and the tax thereon paid to such collector; and upon such payment and delivery of such schedule, list, or statement said collector or deputy collector shall grant to such person paying such duty or tax a receipt or receipts for the same in duplicate, which shall be prepared as hereinafter provided. Such receipt or receipts, duly signed and delivered by such collector or deputy collector, shall be sufficient evidence to entitle such executor, administrator, or trustee to be credited and allowed such payment by every tribunal which, by the laws of any State or Territory, is, or may be, empowered to decide upon and settle the accounts of executors and administrators. And in case such executor, administrator, or trustee shall refuse or neglect to pay the aforesaid duty or tax to the collector or deputy collector, as aforesaid, within the time hereinbefore provided, or shall neglect or refuse to deliver to said collector or deputy collector the duplicate of the schedule, list, or statement of such legacies, property, or personal estate, under oath, as aforesaid, or shall neglect or refuse to deliver the schedule, list, or statement of such legacies, property, or personal estate, under oath, as aforesaid, or shall deliver to said collector or deputy collector a false schedule or statement of such legacies, property, or personal estate, or give the names and relationship of the persons entitled to beneficial interests therein untruly, or shall not truly and correctly set forth and state therein the clear value of such beneficial interest, or where no administration upon such property or personal estate shall have been granted or allowed under existing laws, the collector or deputy collector shall make out such lists and valuation as in other cases of neglect or refusal, and shall assess the duty thereon; and the collector shall commence appropriate proceedings before any court of the United States, in the name of the United States, against such person or persons as may have the actual or constructive custody or possession of such property or personal estate, or any part thereof, and shall subject such property or personal estate, or any portion of the same, to be sold upon the judgment or decree of such court, and from the proceeds of such sale the amount of such tax or duty, together with all costs and expenses of every description to be allowed by such court, shall be first paid, and the balance, if any, deposited according to the order of such court, to be paid under its direction to such person or persons as shall establish title to the same. The deed or deeds, or any proper conveyance of such property or personal estate, or any portion thereof, so sold under such judgment or decree, executed by the officer lawfully charged with carrying the same into effect, shall vest in the purchaser thereof all the title of the delinquent to the property or personal estate sold under and by virtue of such judgment or decree, and shall release every other portion of such property or personal estate from the lien or charge thereon created by this act. And every person or persons who shall have in his possession, charge, or custody any record, file, or paper containing, or supposed to contain, any information concerning such property or personal estate, as aforesaid, passing from any person who may die, as aforesaid, shall exhibit the same at the request of the collector or deputy collector of the district, and to any law officer of the United States, in the performance of

his duty under this act, his deputy or agent, who may desire to examine the same. And if any such person, having in his possession, charge, or custody any such records, files, or papers, shall refuse or neglect to exhibit the same on request, as aforesaid, he shall forfeit and pay the sum of five hundred dollars: *Provided*, That in all legal controversies where such deed or title shall be the subject of judicial investigation, the recital in said deed shall be *prima facie* evidence of its truth, and that the requirements of the law had been complied with by the officers of the Government.

"Sec. 31. That all administrative, special, or stamp provisions of law, including the laws in relation to the assessment of taxes, not heretofore specifically repealed are hereby made applicable to this act.

"LOANS.

"Sec. 32. That the Secretary of the Treasury is authorized to borrow from time to time, at a rate of interest not exceeding three per centum per annum, such sum or sums as, in his judgment, may be necessary to meet public expenditures, and to issue therefor certificates of indebtedness in such form as he may prescribe and in denominations of fifty dollars or some multiple of that sum; and each certificate so issued shall be payable, with the interest accrued thereon, at such time, not exceeding one year from the date of its issue, as the Secretary of the Treasury may prescribe: *Provided*, That the amount of such certificates outstanding shall at no time exceed one hundred millions of dollars; and the provisions of existing law respecting counterfeiting and other fraudulent practices are hereby extended to the bonds and certificates of indebtedness authorized by this act.

"Sec. 33. That the Secretary of the Treasury is hereby authorized to borrow on the credit of the United States from time to time as the proceeds may be required to defray expenditures authorized on account of the existing war (such proceeds when received to be used only for the purpose of meeting such war expenditures), the sum of four hundred million dollars, or so much thereof as may be necessary, and to prepare and issue therefor, coupon or registered bonds of the United States in such form as he may prescribe, and in denominations of twenty dollars or some multiple of that sum, redeemable in coin at the pleasure of the United States after ten years from the date of their issue, and payable twenty years from such date, and bearing interest payable quarterly in coin at the rate of three per centum per annum; and the bonds herein authorized shall be exempt from all taxes or duties of the United States, as well as from taxation in any form by or under State, municipal, or local authority: *Provided*, That the bonds authorized by this section shall be first offered at par as a popular loan under such regulations, prescribed by the Secretary of the Treasury, as will give opportunity to the citizens of the United States to participate in the subscriptions to such loan, and in allotting said bonds the several subscriptions of individuals shall be first accepted, and the subscriptions for the lowest amounts shall be first allotted: *Provided further*, That any portion of any issue of said bonds not subscribed for as above provided may be disposed of by the Secretary of the Treasury at not less than par, under such regulations as he may prescribe, but no commissions shall be allowed or paid thereon; and a sum not exceeding one tenth of one per centum of the amount of the bonds and certificates herein authorized is hereby appropriated out of any money in the Treasury not otherwise appropriated, to pay the expense of preparing, advertising, and issuing the same.

"COINAGE OF SILVER BULLION.

"SEC. 34. That the Secretary of the Treasury is hereby authorized and directed to coin into standard silver dollars as rapidly as the public interests may require, to an amount, however, of not less than one and one half millions of dollars in each month, all of the silver bullion now in the Treasury purchased in accordance with the provisions of the act approved July fourteenth, eighteen hundred and ninety, entitled 'An Act directing the purchase of silver bullion and the issue of Treasury notes thereon, and for other purposes,' and said dollars, when so coined, shall be used and applied in the manner and for the purposes named in said act.

"MIXED FLOUR.

"SEC. 35. That for the purposes of this act the words 'mixed flour' shall be understood to mean the food product made from wheat mixed or blended in whole or in part with any other grain or other material, or the manufactured product of any other grain or other material than wheat.

"SEC. 36. That every person, firm, or corporation, before engaging in the business of making, packing, or repacking mixed flour, shall pay a special tax at the rate of twelve dollars per annum, the same to be paid and posted in accordance with the provisions of sections thirty-two hundred and forty-two and thirty-two hundred and thirty-nine of the Revised Statutes, and subject to the fines and penalties therein imposed for any violation thereof.

"SEC. 37. That every person, firm, or corporation making, packing, or repacking mixed flour shall plainly mark or brand each package containing the same with the words 'mixed flour' in plain black letters not less than two inches in length, together with the true weight of such package, the names of the ingredients composing the same, the name of the maker or packer, and the place where made or packed. In addition thereto, such maker or packer shall place in each package a card not smaller than two inches in width by three inches in length, upon which shall be printed the words 'mixed flour,' together with the names of the ingredients composing the same, and the name of the maker or packer, and the place where made or packed. Any person, firm, or corporation making, packing, or repacking mixed flour hereunder, failing to comply with the provisions of this section shall be deemed guilty of a misdemeanor, and upon conviction shall be punished by a fine of not less than two hundred and fifty dollars and not more than five hundred dollars, or be imprisoned not less than sixty days nor more than one year.

"SEC. 38. That all sales and consignments of mixed flour shall be in packages not before used for that purpose; and every person, firm, or corporation knowingly selling or offering for sale any mixed flour in other than marked and branded packages, as required by the provisions of this act relating to the manufacture and sale of mixed flour, or who packs in any package or packages any mixed flour in any manner contrary to the provisions relating to the manufacture and sale of mixed flour of this act, or who falsely marks or brands any package or packages containing mixed flour, or unlawfully removes such marks or brands, shall, for each such offense, be punished by a fine of not less than two hundred and fifty dollars and not more than five hundred dollars, or by imprisonment not less than thirty days nor more than one year.

"SEC. 39. That in addition to the branding and marking of mixed flour as herein provided, there shall be affixed to the packages containing the same a label in the following words: 'Notice.—The manufacturer (or packer, as the case may be) of the

mixed flour herein contained has complied with all the requirements of law. Every person is cautioned not to use this package or label again or to remove the contents without destroying the revenue stamp thereon, under the penalty prescribed by law in such cases.' Every person, firm, or corporation failing or neglecting to affix such label to any package containing mixed flour made or packed by him or them, or who removes from any such package any label so affixed, shall, upon conviction thereof, be fined not less than fifty dollars for each label so removed.

"SEC. 40. That barrels or other packages in which mixed flour may be packed shall contain not to exceed one hundred and ninety-six pounds; that upon the manufacture and sale of mixed flour there shall be levied a tax of four cents per barrel or other package containing one hundred and ninety-six pounds or more than ninety-eight pounds; two cents on every half barrel or other package containing ninety-eight pounds or more than forty-nine pounds; one cent on every quarter barrel or other package containing forty-nine pounds or more than twenty-four and one half pounds; and one half cent on every one eighth barrel or other package containing twenty-four and a half pounds or less, to be paid by the person, firm, or corporation making or packing said flour. The tax levied by this section shall be represented by coupon stamps, and the provisions of existing laws governing the engraving, issue, sale, accountability, effacement, and destruction of stamps relating to tobacco and snuff shall, so far as applicable, be made to apply to stamps provided in this section: *Provided*, That when mixed flour, on the manufacture and sale of which the tax herein imposed has been paid, is sold and then repacked without the addition of any other material, such repacked flour shall not be liable to any additional tax; but the packages containing such repacked flour shall be branded or marked as required by the provisions of section thirty-seven of this act, and shall contain the card provided for in section thirty-seven hereof; and in addition thereto the person, firm, or corporation repacking mixed flour shall place on the packages containing the same a label in the following words: 'Notice.—The contents of this package have been taken from a regular statutory package, upon which the tax has been duly paid.' Any person violating the provisions of this section shall, upon conviction thereof, be punished by a fine of not less than two hundred and fifty dollars and not more than five hundred dollars, or by imprisonment not to exceed one year.

"SEC. 41. That whenever any person, firm, or corporation sells, consigns, or removes for sale, consignment, or consumption any mixed flour upon which the tax required by this act has not been paid, it shall be the duty of the Commissioner of Internal Revenue, for a period of not more than one year after such sale, consignment, or removal, upon satisfactory proof, to estimate the amount of tax which should have been paid, and to make an assessment therefor and certify the same to the collector of the proper district. The tax so assessed shall be in addition to the penalties imposed by this act for an unauthorized sale or removal.

"SEC. 42. That all mixed flours, imported from foreign countries, shall, in addition to any import duties imposed thereon, pay an internal-revenue tax equal in amount to the tax imposed under section forty of this act, such tax to be represented by coupon stamps, and the packages containing such imported mixed flour shall be marked, branded, labeled, and stamped as in the case of mixed flour made or packed in the United States. Any person, firm, or corporation purchasing or re-

ceiving for sale or repacking any such mixed flour which has not been branded, labeled, or stamped as required by this act, or which is contained in packages which have not been marked, branded, labeled, or stamped as required by this act, shall, upon conviction, be fined not less than fifty dollars nor more than five hundred dollars.

"Sec. 43. That any person, firm, or corporation knowingly purchasing or receiving for sale or for repacking and resale any mixed flour from any maker, packer, or importer, who has not paid the tax herein provided, shall, for each offense, be fined not less than fifty dollars, and forfeit to the United States all the articles so purchased or received, or the full value thereof.

"Sec. 44. That mixed flour may be removed from the place of manufacture or from the place where packed for export to a foreign country without payment of tax or affixing stamps or labels thereto, under such regulation and the filing of such bond and other security as the Commissioner of Internal Revenue, with the approval of the Secretary of the Treasury, may prescribe. Every person, firm, or corporation who shall export mixed flour shall plainly mark on each package containing the same, the words 'mixed flour,' and the names of the ingredients composing the same, the name of the maker or packer, and the place where made or packed, in accordance with the provisions of sections thirty-six to forty-five, inclusive, of this act.

"Sec. 45. That whenever any package containing mixed flour is emptied it shall be the duty of the person in whose possession it is to destroy the stamp thereon. Any person disposing of such package without first having destroyed the stamp or mark or marks thereon shall, upon conviction, be punished by a fine not exceeding the sum of twenty-five dollars.

"Sec. 46. That all fines, penalties, and forfeitures imposed by section thirty-six to section forty-five, both inclusive, of this act may be recovered in any court of competent jurisdiction.

"Sec. 47. That the Commissioner of Internal Revenue, with the approval of the Secretary of the Treasury, shall make all needful rules and regulations for carrying into effect the provisions relating to the manufacture and sale of mixed flour, being section thirty-five to section forty-nine, both inclusive, of this act, and the said Commissioner of Internal Revenue, by and with the approval of the Secretary of the Treasury, for the purpose of carrying said last-mentioned provisions of this act into effect, is hereby authorized to employ such additional clerks and agents as may be necessary for that purpose, not to exceed twenty in number.

"Sec. 48. That any person, firm, or corporation found guilty of a second or any subsequent violation of any of the provisions of section thirty-six to section forty-five, both inclusive, relating to the manufacture and sale of mixed flour as aforesaid, of this act shall, in addition to the penalties herein imposed, be imprisoned not less than thirty days nor more than ninety days.

"Sec. 49. That the provisions of this act relating to the manufacture and sale of mixed flour shall take effect and be in force sixty days from and after the date of the passage of this act; and all packages of mixed flour found on the premises of any person, firm, or corporation on said day, who has made, packed, or repacked the same, on which the tax herein authorized has not been paid, shall be deemed taxable under the provisions of section thirty-six to section forty-five, both inclusive, of this act, and shall be taxed and have affixed thereon such marks, brands, labels, and stamps as required by the provisions of said sections or by the rules

and regulations prescribed by the Commissioner of Internal Revenue, under authority of this act.

"TEA.

"Sec. 50. That there shall be levied, collected, and paid upon tea when imported from foreign countries a duty of ten cents per pound.

"Sec. 51. That this act shall take effect on the day next succeeding the date of its passage except as otherwise specially provided for.

"Approved, June 18, 1898."

Removal of Disability.—The good feeling between the North and the South, brought about by the war with Spain, was manifested in many ways during the session through individual action; but the passage of an act removing the disability imposed in section 8 of Amendment XIV to the Constitution seemed to brush aside the last shadow of a grievance left by the civil war. This section provides that no one who, having taken an oath as member of Congress, as an officer of the United States, as a member of any State Legislature, or as an executive or judicial officer of any State to support the Constitution, shall have engaged in insurrection against the United States, shall be Senator, Representative, presidential elector, or hold any civil or military office under the United States; but the disability may be removed by Congress by a two-thirds vote. The class excluded on account of complicity in the rebellion was so large in the beginning as to include nearly all the leading men of the South; but the disabilities were removed by special action in many cases, nearly every one who asked for the favor receiving it, so that 3,300 persons were amnestied within two years after the adoption of the fourteenth amendment. An effort was then made for removing the disability of classes instead of individuals, and the House of Representatives twice passed measures for amnesty excluding former members of Congress, officers of the army and navy, and members of State conventions who voted for ordinances of secession, but the measures failed in the Senate, though President Grant was urgent for a general amnesty. However, a measure was passed and approved May 22, 1872, removing disabilities from all save members of the Thirty-sixth and Thirty-seventh Congresses, judicial, naval, and military officers, heads of departments, and foreign ministers who had taken part in the rebellion. This left only a small remnant under disability—about 750 in 1876, out of at least 18,000 of the most prominent men in the South originally disqualified. In 1875 the movement for general amnesty was strongly pushed, but it failed after a fierce and vindictive debate in the House of Representatives, in which Mr. Blaine, who, with President Grant, had been its great champion, insisted on the exclusion of Jeff Davis from the scope of the measure, and so defeated it. And so the disability which had been a great practical device for keeping thousands of Southern leaders out of politics became a mere grievance to a few men, for most of whom disability was a title to distinction, and their number decreased rapidly with the lapse of years. Its removal at this late day had become a mere matter of sentiment.

The bill for that purpose was introduced in the Senate, May 12, by Mr. Stewart, of Nevada, as follows:

"Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That all disabilities imposed by the fourteenth amendment of the Constitution of the United States upon persons on account of having engaged in insurrection or rebellion against the United States and on account of having given aid

or comfort to the enemies thereof are hereby removed."

It was passed at once, without discussion; and it came up in the House of Representatives June 1. The title was amended so as to read: "A bill to remove all disability imposed by section 3 of the fourteenth amendment to the Constitution of the United States," and the measure was amended so as to provide simply, "that the disability imposed by section 3 of the fourteenth amendment to the Constitution of the United States heretofore incurred is hereby removed." It was then passed after a few harmonious speeches. It was approved by the President, June 6, 1898.

War Measures.—April 23 the House of Representatives passed a bill for the better organization of the line of the army of the United States; on April 25 it was amended and passed by the Senate; and the President approved it, April 26, in the form adopted by a conference committee, as follows:

"*Be it enacted, etc.,* That hereafter the peace organization of each regiment of infantry now in service shall embrace 1 colonel, 1 lieutenant colonel, 2 majors, 10 captains, 12 first lieutenants, 10 second lieutenants, 1 sergeant major, 1 quartermaster sergeant, 1 chief musician, 2 principal musicians, 2 battalions of 4 companies each, and 2 skeleton or unmanned companies, the organized companies to be constituted as now authorized by law: *Provided*, That nothing herein contained shall be construed as abolishing the office of chaplain in each regiment of colored troops: *And provided further*, That the vacancies in the grade of major created by this section shall be filled by promotion according to seniority in the infantry arm.

"*Sec. 2.* That upon a declaration of war by Congress, or a declaration by Congress that war exists, the President, in his discretion, may establish a third battalion for each infantry regiment, consisting of four companies, to be supplied by manning the two skeleton companies and by organizing two additional companies. The vacancies of commissioned officers in the additional companies shall be filled by promotions by seniority in the infantry arm and by appointments in accordance with existing law; and hereafter all vacancies occurring in the cavalry, artillery, and infantry above the grade of second lieutenant shall, subject to the examination now required by law, be filled by promotion according to seniority from the next lower grade in each arm.

"*Sec. 3.* That upon a declaration of war by Congress, or a declaration by Congress that war exists, the enlisted strength of a company, troop, and battery, respectively, may, in the discretion of the President, be increased to comprise not exceeding:

"For each company of infantry: One first sergeant, 1 quartermaster sergeant, 4 sergeants, 12 corporals, 2 musicians, 1 artificer, 1 wagoner, and 84 privates; total enlisted, 106: *Provided*, That in the event of a call by the President for either volunteers or the militia of the country the President is authorized to accept the quotas of troops of the various States and Territories, including the District of Columbia and Indian Territory, as organized under the laws of the States and Territories, including the District of Columbia, in companies, troops, and batteries, each to contain, so far as practicable, the number of enlisted men authorized in this act for each arm of the service, and battalions of not less than 8 such companies and regiments of not less than 10 nor more than 12 such companies, but this proviso shall apply to companies, troops, batteries, battalions, and regimental organizations and none other: *Provided further*, That in volunteer organizations received into the

service under this act and existing laws one hospital steward shall be authorized for each battalion.

"For each troop of cavalry: One first sergeant, 1 quartermaster sergeant, 6 sergeants, 8 corporals, 2 farriers and blacksmiths, 2 trumpeters, 1 saddler, 1 wagoner, 78 privates; total enlisted, 100.

"For each battery of heavy artillery: One first sergeant, 22 sergeants, 10 corporals, 2 musicians, 2 artificers, 1 wagoner, 162 privates; total enlisted, 200.

"For each battery of field artillery: One first sergeant, 1 quartermaster sergeant, 1 veterinary sergeant, 6 sergeants, 15 corporals, 2 farriers, 2 artificers, 1 saddler, 2 musicians, 1 wagoner, 141 privates; total enlisted, 173.

"For each company of engineers: One first sergeant, 10 sergeants, 10 corporals, 2 musicians, 64 first-class privates, 63 second-class privates; total enlisted, 150.

"In time of war there shall be added to the Signal Corps of the army 10 corporals, 100 first-class privates, and 40 second-class privates, who shall have the pay and allowances of engineer troops of the same grade.

"The quartermaster and veterinary sergeants provided for in this section shall have the pay and allowances of sergeants of their respective arms.

"*Sec. 4.* That when recruited to their war strength the President may add one second lieutenant to each battery of artillery; such offices to be filled by appointments, as prescribed by existing law.

"*Sec. 5.* That in time of war the President shall cause the batteries of artillery authorized by law to be organized as heavy or field artillery, as in his judgment the exigencies of the service may require.

"*Sec. 6.* That in time of war the pay proper of enlisted men shall be increased 20 per cent. over and above the rates of pay as fixed by law: *Provided*, That in war time no additional increased compensation shall be allowed to soldiers performing what is known as extra or special duty: *Provided further*, That any soldier who deserts shall, besides incurring the penalties now attaching to the crime of desertion, forfeit all right to pension which he might otherwise have acquired.

"*Sec. 7.* That in time of war every officer serving with troops operating against an enemy who shall exercise, under assignment in orders issued by competent authority, a command above that pertaining to his grade, shall be entitled to receive the pay and allowances of the grade appropriate to the command so exercised: *Provided*, That a rate of pay exceeding that of a brigadier general shall not be paid in any case by reason of such assignment: *Provided further*, That at the end of any war in which the United States may become involved the army shall be reduced to a peace basis by the transfer in the same arm of the service or absorption by promotion or honorable discharge under such regulations as the Secretary of War may establish of supernumerary commissioned officers and the honorable discharge or transfer of supernumerary enlisted men; and nothing contained in this act shall be construed as authorizing a permanent increase of the commissioned or enlisted force of the Regular Army beyond that now provided by the law in force prior to the passage of this act, except as to the increase of twenty-five majors provided for in section 1 hereof."

On April 20 the House of Representatives passed a bill "to provide for temporarily increasing the military establishment of the United States in time of war and for other purposes." On April 21 it was amended and passed by the Senate, and after an agreement on certain changes in conference

committee, it was approved by the President, April 22, in the following form:

"Be it enacted, etc., That all able-bodied male citizens of the United States, and persons of foreign birth who shall have declared their intention to become citizens of the United States under and in pursuance of the laws thereof, between the ages of eighteen and forty-five years, are hereby declared to constitute the national forces, and, with such exceptions and under such conditions as may be prescribed by law, shall be liable to perform military duty in the service of the United States.

"SEC. 2. That the organized and active land forces of the United States shall consist of the Army of the United States and of the militia of the several States when called into the service of the United States: *Provided*, That in time of war the army shall consist of two branches, which shall be designated, respectively, as the Regular Army and the Volunteer Army of the United States.

"SEC. 3. That the Regular Army is the permanent military establishment, which is maintained both in peace and war according to law.

"SEC. 4. That the Volunteer Army shall be maintained only during the existence of war, or while war is imminent, and shall be raised and organized, as in this act provided, only after Congress has or shall have authorized the President to raise such a force or to call into the actual service of the United States the militia of the several States: *Provided*, That all enlistments for the Volunteer Army shall be for a term of two years, unless sooner terminated, and that all officers and men composing said army shall be discharged from the service of the United States when the purposes for which they were called into service shall have been accomplished, or on the conclusion of hostilities.

"SEC. 5. That when it becomes necessary to raise a volunteer army the President shall issue his proclamation stating the number of men desired, within such limits as may be fixed by law, and the Secretary of War shall prescribe such rules and regulations, not inconsistent with the terms of this act, as may in his judgment be necessary for the purpose of examining, organizing, and receiving into service the men called for: *Provided*, That all men received into service in the Volunteer Army shall, as far as practicable, be taken from the several States and Territories and the District of Columbia and the Indian Territory in proportion to their population. And any company, troop, battalion, or regiment from the Indian Territory shall be formed and organized under such rules and regulations as shall be prescribed by the Secretary of War.

"SEC. 6. That the Volunteer Army and the militia of the States when called into the service of the United States shall be organized under, and shall be subject to, the laws, orders, and regulations governing the Regular Army: *Provided*, That each regiment of the Volunteer Army shall have one surgeon, two assistant surgeons, and one chaplain, and that all the regimental and company officers shall be appointed by the governors of the States in which their respective organizations are raised: *Provided further*, That when the members of any company, troop, battery, battalion, or regiment of the organized militia of any State shall enlist in the Volunteer Army in a body, as such company, troop, battery, battalion, or regiment, the regimental, company, troop, battery, and battalion officers in service with the militia organization thus enlisting may be appointed by the governors of the States and Territories, and shall when so appointed be officers of corresponding grades in the same organization when it shall have been received into the service of the United States as a part of the Volunteer Army. *Provided further*, That the President

may authorize the Secretary of War to organize companies, troops, battalions, or regiments, possessing special qualifications, from the nation at large, not to exceed three thousand men, under such rules and regulations, including the appointment of the officers thereof, as may be prescribed by the Secretary of War.

"SEC. 7. That all organizations of the Volunteer Army shall be so recruited from time to time as to maintain them as near to their maximum strength as the President may deem necessary, and no new organization shall be accepted into service from any State unless the organizations already in service from such State are as near to their maximum strength of officers and enlisted men as the President may deem necessary.

"SEC. 8. That all returns and muster rolls of organizations of the Volunteer Army and of militia organizations while in the service of the United States shall be rendered to the adjutant general of the army, and upon the disbandment of such organizations the records pertaining to them shall be transferred to and filed in the Record and Pension Office of the War Department. And regimental and all other medical officers serving with volunteer troops in the field or elsewhere shall keep a daily record of all soldiers reported sick or wounded, as shown by the morning call or reports, and shall deposit such reports, with other reports provided for in this section, with the Record and Pension Office, as provided herein for other reports, return and muster rolls.

"SEC. 9. That in time of war, or when war is imminent, the troops in the service of the United States, whether belonging to the Regular or Volunteer Army or to the militia, shall be organized, as far as practicable, into divisions of three brigades, each brigade to be composed of three or more regiments; and whenever three or more divisions are assembled in the same army the President is authorized to organize them into army corps, each corps to consist of not more than three divisions.

"SEC. 10. That the staff of the commander of an army corps shall consist of one assistant adjutant general, one chief engineer, one inspector general, one chief quartermaster, one chief commissary of subsistence, one judge advocate, and one chief surgeon, who shall have, respectively, the rank of lieutenant colonel; one assistant adjutant general, who shall have the rank of captain, and the aids-de-camp authorized by law. The staff of the commander of a division shall consist of one assistant adjutant general, one inspector general, one chief quartermaster, one chief commissary of subsistence, and one chief surgeon, who shall have, respectively, the rank of major, and the aids-de-camp authorized by law. The staff of the commander of a brigade shall consist of one assistant adjutant general, one engineer officer, one assistant quartermaster, and one commissary of subsistence, each with the rank of captain, one surgeon, and the aids-de-camp authorized by law. The staff officers herein authorized for the corps, division, and brigade commanders may be appointed by the President, by and with the advice and consent of the Senate, as officers of the Volunteer Army, or may be assigned by him, in his discretion, from officers of the Regular Army or the Volunteer Army, or of the militia in the service of the United States: *Provided*, That when relieved from such staff service said appointments or assignments shall terminate.

"SEC. 11. That the President is hereby authorized to appoint in the Volunteer Army, by and with the advice and consent of the Senate, not exceeding one major general for each organized army corps and division, one brigadier general for each brigade, and any officer so selected and appointed from the

Regular Army shall be entitled to retain his rank therein: *Provided*, That each general officer of the Volunteer Army shall be entitled to the number of aids-de-camp authorized for an officer of like grade in the Regular Army.

"Sec. 12. That all officers and enlisted men of the Volunteer Army, and of the militia of the States when in the service of the United States, shall be in all respects on the same footing as to pay, allowances, and pensions as that of officers and enlisted men of corresponding grades in the Regular Army.

"Sec. 13. That the governor of any State or Territory may with the consent of the President appoint officers of the Regular Army in the grades of field officers in organizations of the Volunteer Army, and officers thus appointed shall be entitled to retain their rank in the Regular Army: *Provided*, That not more than one officer of the Regular Army shall hold a commission in any one regiment of the Volunteer Army at the same time.

"Sec. 14. That the general commanding a separate department or a detached army is authorized to appoint from time to time military boards of not less than three nor more than five volunteer officers of the Volunteer Army to examine into the capacity, qualifications, conduct, and efficiency of any commissioned officer of said army within his command: *Provided*, That each member of the board shall be superior in rank to the officer whose qualifications are to be inquired into: *And provided further*, That if the report of such a board is adverse to the continuance of any officer, and the report be approved by the President, such officer shall be discharged from service in the Volunteer Army, at the discretion of the President, with one month's pay and allowances.

"Sec. 15. That all acts and parts of acts inconsistent with the provisions hereof be, and the same are hereby, repealed."

Subsequently the following act amendatory of the above was passed:

"*Be it enacted, etc.*, That so much of section 10 of the act approved April 22, 1898, entitled 'An Act to provide for temporarily increasing the military establishment of the United States in time of war, and for other purposes,' as provides that 'officers appointed or assigned to the staff of commanders of army corps, divisions, and brigades shall serve only in such capacity, and that when relieved from such staff service such appointments or assignments shall terminate,' be, and the same is hereby, repealed, and that assignments of the officers of the volunteer staff shall be governed by the same rules and regulations as those of the Regular Army."

A bill was passed and approved by the President, June 17, "to organize a hospital corps of the navy of the United States, to define its duties and regulate its pay." The following is the text of the measure:

"*Be it enacted, etc.*, That a hospital corps of the United States navy is hereby established, and shall consist of pharmacists, hospital stewards, hospital apprentices (first class), and hospital apprentices; and for this purpose the Secretary of the Navy is empowered to appoint 25 pharmacists with the rank, pay, and privileges of warrant officers, removable at the discretion of the Secretary, and to enlist, or cause to be enlisted, as many hospital stewards, hospital apprentices (first class), and hospital apprentices as in his judgment may be necessary, and to limit or fix the number, and to make such regulations as may be required for their enlistment and government. Enlisted men in the navy or the Marine Corps shall be eligible for transfer to the hospital corps, and vacancies occurring in the

grade of pharmacist shall be filled by the Secretary of the Navy by selection from those holding the rate of hospital steward.

"Sec. 2. That all necessary hospital and ambulance service at naval hospitals, naval stations, navy yards, and marine barracks, and on vessels of the navy, Coast Survey, and Fish Commission, shall be performed by the members of said corps, and the corps shall be permanently attached to the medical department of the navy, and shall be included in the effective strength of the navy and be counted as a part of the enlisted force provided by law, and shall be subject to the laws and regulations for the government of the navy.

"Sec. 3. That the pay of hospital stewards shall be \$60 a month, the pay of hospital apprentices (first class) \$24 a month, and the pay of hospital apprentices \$18 a month, with the increase on account of length of service as is now or may hereafter be allowed by law to other enlisted men in the navy.

"Sec. 4. That all benefits derived from existing laws, or that may hereafter be allowed by law, to other warrant officers or enlisted men in the navy shall be allowed in the same manner to the warrant officers or enlisted men in the hospital corps of the navy.

"Sec. 5. That all acts and parts of acts, so far as they conflict with the provisions of this act, are hereby repealed."

A joint resolution was passed for "the organization and enrollment of the United States auxiliary naval force," and approved by the President, May 26, 1898, as follows:

"*Resolved, etc.*, That a United States auxiliary naval force is hereby authorized to be established, to be enrolled in such numbers as the President may deem necessary, not exceeding 8,000 enlisted men, for the exigencies of the present war with Spain, and to serve for a period of one year, or less, and shall be disbanded by the President at the conclusion of the war.

"Sec. 2. That the chief of the United States auxiliary naval force shall be detailed by the Secretary of the Navy from the active or retired list of the line officers of the navy not below the grade of captain, who shall receive the highest pay of his grade while so employed.

"Sec. 3. That enlistment into the United States auxiliary naval force shall be made by such officer or officers as the Navy Department may detail for the purpose, who shall also select from merchant vessels and other available sources such volunteers as may be deemed best fitted for service as officers in said force, and shall report to the Secretary of the Navy, for his action, their names and the grade for which each is recommended.

"Sec. 4. That for the purposes of this organization the coast line shall be divided into districts, each of which shall be in charge of an assistant to the chief of the United States auxiliary naval force; and such assistant chiefs may be detailed by the Secretary of the Navy from the officers of the active or retired list of the line of the navy, or appointed by him from civil life, not above the rank of lieutenant commander.

"Sec. 5. That the officers and men comprising the United States auxiliary naval force shall receive the same pay and emoluments as those holding similar rank or rate in the regular navy; and all matters relating to the organization, discipline, and government of men in said force shall conform to the laws and regulations governing the United States navy.

"Sec. 6. That the chief of the United States auxiliary naval force, or such officers as the Navy Department may detail for such service, may, with

the consent of the Governor of any State, muster into the said force the whole or any part of the organizations of the naval militia of any State to serve in said auxiliary naval force, and shall report to the Secretary of the Navy, for his action, the names and grades for which commissions in said United States auxiliary naval force shall be issued to the officers of such naval militia, and shall have the power to appoint and disrate the petty officers thereof.

"Sec. 7. That the officers, warrant officers, petty officers, and enlisted men and boys of the United States auxiliary naval force thus created shall be paid from the appropriation 'Pay of the Navy'; and the sum of \$3,000,000, or so much thereof as may be required, is hereby appropriated, from any money in the Treasury not otherwise appropriated, for the purchase or hire of vessels necessary for the purposes of this resolution."

The following bill to increase the efficiency of the quartermaster's department was passed by the Congress and approved by the President, July 7, 1898:

"*Be it enacted, etc.*, That during the existing war, and for a period not exceeding one year thereafter, the Secretary of War may make such distribution of the duties and labors of the quartermaster's department as may be deemed for the best interests of the service, and may assign a suitable officer in charge of each of such divisions, and may assign to duty as special inspectors of the quartermaster's department not exceeding four officers, to be selected from the regular and volunteer officers of the department; and such officers, and the quartermaster on the staff of the commanding general of the army, while so acting, shall have the rank next above that held by them and not above colonel.

"Sec. 2. That the President may nominate and, by and with the advice and consent of the Senate, may appoint 2 quartermasters of volunteers with the rank of colonel, 2 quartermasters of volunteers with the rank of lieutenant colonel, 3 quartermasters of volunteers with the rank of major, and 20 assistant quartermasters of volunteers with the rank of captain; and the Secretary of War may assign an officer of the quartermaster's department in charge of each principal depot of the quartermaster's department not exceeding 12, to be selected from the regular and volunteer officers of the quartermaster's department; and such officers while so acting shall have the rank next above that held by them and not above colonel, and the 4 principal assistants of the quartermaster general while so acting shall have the rank of colonel. The Secretary of War may assign such of the said volunteer quartermasters as may be deemed necessary to duty in the office of the quartermaster general, at the various supply depots or on other important and special work, and may continue such assignments for a period not exceeding one year after the close of the war, then to be discharged."

The following bill to increase the efficiency of the subsistence department of the army was passed by the Congress and approved by the President, July 7, 1898:

"*Be it enacted, etc.*, That during the existence of the present war, and for not exceeding one year thereafter, every commissary of subsistence, of whatever rank, who shall be assigned to the duty of purchasing and shipping subsistence supplies at important depots, shall have the rank next above that held by him and not above colonel, but the number so assigned shall only be such as may be found necessary, not exceeding 12; also that the 2 commissaries of subsistence, who may be detailed as assistants to the commissary general of subsistence, shall have the rank of colonel: *Provided*,

That when any such officer is relieved from said duty his temporary rank, pay, and emoluments shall cease, and he shall return to his lineal rank in the department.

"Sec. 2. That there is hereby authorized to be added to the subsistence department in the volunteer service during the present war, and not to exceed one year thereafter, 8 majors and 12 captains for the discharge of such subsistence duties as may be assigned to them by the Secretary of War, to be nominated and by and with the advice and consent of the Senate to be appointed by the President."

The Congress passed and the President approved, July 5, the following bill relative to the Corps of Engineers of the army:

"*Be it enacted, etc.*, That the Corps of Engineers of the army shall hereafter consist of one chief of engineers with the rank of brigadier general, 7 colonels, 14 lieutenant colonels, 28 majors, 35 captains, 80 first lieutenants, 12 second lieutenants, and the Battalion of Engineers: *Provided*, That the vacancies created by this act in all grades above second lieutenant shall be filled by the promotion by seniority of the officers now in the Corps of Engineers: *And provided further*, That the number of officers in any grade above second lieutenant shall not be increased beyond the number heretofore established by law by the promotion of any officer to fill an original vacancy created by this act until such officer shall have served at least three years in the grade from which he is promoted and the captains and lieutenants shall have satisfactorily passed the examinations required by existing laws."

The Congress passed and the President approved, July 8, 1898, the following bill for a temporary increase in the inspector general's department:

"*Be it enacted, etc.*, That the President is authorized, by and with the advice and consent of the Senate, to appoint one inspector general with the rank of colonel, one inspector general with the rank of lieutenant colonel, and one inspector general with the rank of major: *Provided*, That the vacancies created in the grade of colonel and lieutenant colonel by this act shall be filled by the promotion of officers now in the inspector general's department according to seniority, and that upon the mustering out of the volunteer forces and the reduction of the Regular Army to a peace basis no appointments shall be made in the inspector general's department until the number of officers in each grade in that department shall be reduced to the number now authorized by law."

The Congress passed and the President approved, June 18, 1898, a bill "to amend an act entitled 'An Act to promote the administration of justice in the army,' approved Oct. 1, 1890, and for other purposes." It is as follows:

"*Be it enacted, etc.*, That the act entitled 'An Act to promote the administration of justice in the army,' approved Oct. 1, 1890, as supplemented and amended by subsequent legislation, be, and the same is hereby, amended so as to read as follows:

"That the commanding officer of each garrison, fort, or other place, regiment or corps, detached battalion, or company, or other detachment in the army, shall have power to appoint for such place or command, or in his discretion for each battalion thereof, a summary court to consist of one officer to be designated by him, before whom enlisted men who are to be tried for offenses, such as were prior to the passage of the act "to promote the administration of justice in the army," approved Oct. 1, 1890, cognizable by garrison or regimental courts-martial, and offenses cognizable by field officers detailed to try offenders under the provisions of the

eightieth and one hundred and tenth articles of war, shall be brought to trial within twenty-four hours of the time of the arrest, or as soon thereafter as practicable, except when the accused is to be tried by general court-martial; but such summary court may be appointed and the officer designated by superior authority when by him deemed desirable; and the officer holding the summary court shall have power to administer oaths and to hear and determine such cases, and when satisfied of the guilt of the accused adjudge the punishment to be inflicted, which said punishment shall not exceed confinement at hard labor for one month and forfeiture of one month's pay, and, in the case of a noncommissioned officer, reduction to the ranks in addition thereto; that there shall be a summary court record kept at each military post and in the field at the headquarters of the proper command, in which shall be entered a record of all cases heard and determined and the action had thereon; and no sentence adjudged by said summary court shall be executed until it shall have been approved by the officer appointing the court, or by the officer commanding for the time being: *Provided*, That when but one commissioned officer is present with a command he shall hear and finally determine such cases: *And provided further*, That no one while holding the privileges of a certificate of eligibility to promotion shall be brought before a summary court, and that noncommissioned officers shall not, if they object thereto, be brought to trial before summary courts without the authority of the officer competent to order their trial by general court-martial, but shall in such cases be brought to trial before garrison, regimental, or general courts-martial, as the case may be.

"Sec. 2. That Articles 80 and 110 of the Rules and Articles for the Government of the Armies of the United States be, and the same are hereby, repealed.

"Sec. 3. That the commanding officers authorized to approve the sentences of summary courts and superior authority shall have power to remit or mitigate the same.

"Sec. 4. That post and other commanders shall, in time of peace, on the last day of each month, make a report to the department headquarters of the number of cases determined by summary court during the month, setting forth the offenses committed and the penalties awarded, which report shall be filed in the office of the judge advocate of the department, and may be destroyed when no longer of use.

"Sec. 5. That soldiers sentenced by court-martial to dishonorable discharge and confinement shall, until discharged from such confinement, remain subject to the Articles of War and other laws relating to the administration of military justice.

"Sec. 6. That it shall be lawful for any civil officer having authority under the laws of the United States, or of any State, Territory, or District, to arrest offenders, to summarily arrest a deserter from the military service of the United States and deliver him into the custody of the military authority of the General Government.

"Sec. 7. That this act shall take effect sixty days after its passage."

The Congress passed and the President approved, July 7, 1898, the following measure for increasing the force of the ordnance department:

"That section 5 of an act entitled 'An Act reorganizing the several staff corps of the army,' approved June 23, 1874, be, and the same is hereby, amended so as to read as follows:

"Sec. 5. The ordnance department shall consist of 1 chief of ordnance, with the rank, pay, and emoluments of a brigadier general; 4 colonels, 5

lieutenant-colonels, 12 majors, 24 captains, 20 first lieutenants.

"A chief ordnance officer may be assigned to the staff of an army or a corps commander, and while so assigned shall have the rank, pay, and allowances of a lieutenant colonel. A chief ordnance officer may be assigned to the staff of a division commander, and while so assigned shall have the rank, pay, and allowances of a major."

The Congress passed and the President approved, July 7, 1898, the following measure for the enlistment of cooks:

"Be it enacted, etc., That the Secretary of War be, and he is hereby, authorized and directed to cause to be enlisted in each company, battery, and troop in the Regular and Volunteer Armies of the United States, as a part of the authorized enlisted strength thereof, under rules to be prescribed by him, a competent person as cook, who shall take rank as and be allowed the pay of a corporal of the arm of the service to which he belongs, and whose duties in connection with the preparation and serving of the food of the enlisted men of the company, battery, or troop, and with the supervision and instruction of enlisted men hereby authorized to be detailed to assist him, shall be prescribed in the regulations for the government of the army."

The Congress passed and the President approved, May 27, 1898, the following measure as to the date at which the pay of volunteers was to begin:

"Be it enacted, etc., That the pay and allowance of such of the volunteers as are received into the service of the United States under the act of Congress approved April 22, 1898, and the acts supplemental thereto, shall be deemed to commence from the day on which they joined for duty and are enrolled at the battalion, regimental, or State rendezvous: *Provided*, That troops about to embark for service in the Philippine Islands may, in the discretion of the Secretary of War, be paid one month's wages in advance prior to embarkation."

The act was afterward amended and approved, July 8, so as to read as follows:

"Be it enacted, etc., That the act of Congress approved May 26, 1898, entitled 'An Act providing for the payment and maintenance of volunteers during the interval between their enrollment and muster into the United States service, and for other purposes,' be, and the same is hereby, amended to read as follows:

"That the pay and allowance of all officers and enlisted men of the volunteers received into the service of the United States under the act of Congress approved April 22, 1898, and the acts supplemental thereto, shall be deemed to commence from the day on which they had their names enrolled for service in the Volunteer Army of the United States and joined for duty therein after having been called for by the governor on the authority of the President, of all officers and enlisted men who have not been so paid shall be paid by the pay department of the army out of any moneys appropriated for the maintenance of the army: *Provided*, That troops about to embark for service in the Philippine Islands may, in the discretion of the Secretary of War, be paid one month's wages in advance prior to embarkation."

The Congress passed and the President approved, May 11, 1898, a bill to provide for a volunteer brigade of engineers, and an additional force of 10,000 enlisted men specially accustomed to tropical climates. It is as follows:

"Be it enacted, etc., That, in addition to the volunteer forces provided for by the act of April 22, 1898, entitled "An Act to provide for temporarily increasing the military establishment of the United States in time of war, and for other purposes," the

President may authorize the Secretary of War to organize, under the terms and conditions of the aforesaid act, a volunteer brigade of engineers from the nation at large, to consist of not more than 8 regiments and not more than 3,500 men, possessing the special qualifications necessary for engineer troops, under such rules and regulations, including the appointment of the officers thereof, as may be prescribed by the Secretary of War: *Provided*, That not to exceed three officers of the Corps of Engineers of the Regular Army may hold volunteer commissions in any one regiment of the volunteer brigade of engineers at the same time: *And provided further*, That all officers shall be appointed by the President and with the consent of the Senate.

"Sec. 2. And the President is further empowered during the present war, under the act of April 22, 1898, to authorize the Secretary of War to organize an additional volunteer force of not exceeding 10,000 enlisted men possessing immunity from diseases incident to tropical climates; the officers thereof to be appointed by the President, by and with the advice and consent of the Senate.

"Sec. 3. The provisions of the act of April 22, 1898, which provide that volunteers called out by proclamation of the President shall be apportioned to the several States and the provisions of said act which provide that the governors of the States shall appoint officers shall not apply to this act."

The Congress passed and the President approved, May 17, a bill to provide assistance to the inhabitants of Cuba, and arms, munitions, and military stores to the people of the island of Cuba, and for other purposes. It is as follows:

"*Be it enacted, etc.*, That while serving in Cuba during the existing war officers of the army of the United States exercising separate commands may, by special order, cause subsistence, medical, and quartermaster's supplies to be issued to, and other aid rendered to, inhabitants of the island of Cuba who are destitute and in imminent danger of perishing unless they receive the same.

"Sec. 2. That the President and general officers commanding troops in Cuba are hereby authorized to furnish to the Cuban people such arms, ammunition, equipments, and military stores and supplies as they may require in order to increase their effective fighting force in the existing war against Spain."

The following were also passed and approved:

A bill to protect homestead settlers who enter into the military or naval service of the United States.

A bill to establish the rank and pay of volunteer chaplains as that of a mounted captain.

A resolution to facilitate the building of temporary fortifications.

A bill to authorize the establishment of post offices at military posts or camps.

A bill suspending the limitation on the number of hospital stewards during the war.

A bill to organize a volunteer signal corps.

A bill to provide for the increased volume of work in the adjutant general's office due to calling out of volunteers and the increase in the Regular Army.

A bill to reimburse the governors of States and Territories for expenses incurred by them in aiding the United States to raise, organize, and supply and equip the Volunteer Army of the United States.

The Annexation of Hawaii.—May 17, 1898, Mr. Hitt, of Illinois, reported from the Committee on Foreign Affairs of the House of Representatives the following joint resolution to provide for annexing the Hawaiian Islands to the United States.

"Whereas, The Government of the Republic of Hawaii having, in due form, signified its consent,

in the manner provided by its Constitution, to cede absolutely and without reserve to the United States of America all rights of sovereignty of whatsoever kind in and over the Hawaiian Islands and their dependencies, and also to cede and transfer to the United States the absolute fee and ownership of all public, Government, or Crown lands, public buildings or edifices, ports, harbors, military equipment, and all other public property of every kind and description belonging to the Government of the Hawaiian Islands, together with every right and appurtenance thereunto appertaining: Therefore,

"*Resolved by the Senate and House of Representatives of the United States of America in Congress assembled*, That said cession is accepted, ratified, and confirmed, and that the said Hawaiian Islands and their dependencies be, and they are hereby, annexed as a part of the territory of the United States, and are subject to the sovereign dominion thereof, and that all and singular the property and rights hereinbefore mentioned are vested in the United States of America.

"The existing laws of the United States relative to public lands shall not apply to such lands in the Hawaiian Islands; but the Congress of the United States shall enact special laws for their management and disposition: *Provided*, That all revenue from or proceeds of the same, except as regards such part thereof as may be used or occupied for the civil, military, or naval purposes of the United States, or may be assigned for the use of the local government, shall be used solely for the benefit of the inhabitants of the Hawaiian Islands for educational and other public purposes.

"Until Congress shall provide for the government of such islands all the civil, judicial, and military powers exercised by the officers of the existing Government in said islands shall be vested in such person or persons and shall be exercised in such manner as the President of the United States shall direct; and the President shall have power to remove said officers and fill the vacancies so occasioned.

"The existing treaties of the Hawaiian Islands with foreign nations shall forthwith cease and determine, being replaced by such treaties as may exist, or as may be hereafter concluded, between the United States and such foreign nations. The municipal legislation of the Hawaiian Islands, not enacted for the fulfillment of the treaties so extinguished, and not inconsistent with this joint resolution nor contrary to the Constitution of the United States nor to any existing treaty of the United States, shall remain in force until the Congress of the United States shall otherwise determine.

"Until legislation shall be enacted extending the United States customs laws and regulations to the Hawaiian Islands the existing customs relations of the Hawaiian Islands with the United States and other countries shall remain unchanged.

"The public debt of the republic of Hawaii, lawfully existing at the date of the passage of this joint resolution, including the amounts due to depositors in the Hawaiian Postal Savings Bank, is hereby assumed by the Government of the United States; but the liability of the United States in this regard shall in no case exceed \$4,000,000. So long, however, as the existing Government and the present commercial relations of the Hawaiian Islands are continued as hereinbefore provided said Government shall continue to pay the interest on said debt.

"There shall be no further immigration of Chinese into the Hawaiian Islands, except upon such conditions as are now or may hereafter be allowed by the laws of the United States; and no Chinese, by reason of anything herein contained, shall be

allowed to enter the United States from the Hawaiian Islands.

"The President shall appoint five commissioners, at least two of whom shall be residents of the Hawaiian Islands, who shall, as soon as reasonably practicable, recommend to Congress such legislation concerning the Hawaiian Islands as they shall deem necessary or proper.

"SEC. 2. That the commissioners hereinbefore provided for shall be appointed by the President, by and with the advice and consent of the Senate.

"SEC. 3. That the sum of \$100,000, or so much thereof as may be necessary, is hereby appropriated, out of any money in the Treasury not otherwise appropriated, and to be immediately available, to be expended at the discretion of the President of the United States of America, for the purpose of carrying this joint resolution into effect."

Mr. Hitt said in explanation and support of the measure:

"Mr. Speaker, the measure which is now before the House for the annexation of the Hawaiian Islands is substantially the same as a treaty negotiated last year, which is here put into the form of a joint resolution. The treaty was duly ratified by the Senate of the republic of Hawaii. We therefore know that we are acting with the cordial assent of the Government of the country proposed to be annexed. That treaty was preceded by another negotiated by President Harrison five years ago between the two countries, providing for the annexation of the Hawaiian Islands to the United States, which treaty was duly ratified by the Government of Hawaii and would probably have been ratified by our Senate had it not been withdrawn by reason of a change of the occupant of our Executive office.

"This is not a novel question at all. It is not an emergency proposition sprung upon us suddenly. It is not a case of greed for territory and overweening influence brought to bear by a great and powerful Government upon one of the smallest in the world to constrain it to give up its independent existence and be absorbed by the other under the form of a legal proceeding. There is no oppression on our side, there is no unwillingness on the other side. The whole proceeding is with the cordial assent of the duly constituted authorities of the Hawaiian republic, and in accordance with the terms of the Constitution of that republic.

"It is in pursuance of a policy long discussed and well known there and to our people here and to all the world. It is a result often contemplated by the successive governments of those islands for fifty years, because the circumstances surrounding the little nation in all the changes in its history have plainly made this a foregone conclusion. So slender, so tottering a political existence in the midst of the mighty political powers of the world had a precarious tenure of life. It was a continual temptation to them—an all-important possession of a weak power. It has often been threatened. Several times it has been seized and occupied by a passing commander of a frigate—by a French captain in 1829, by a British commander in 1843, again by the French in 1849.

"Conscious of its feeble ability to maintain independence among the nations, the subject of union with our country has been contemplated long. One of the kings of Hawaii executed a deed of cession to the United States in 1851. Another of the kings prepared a draft of a treaty of annexation to the United States in 1854, but before it was executed he died. As I have said, treaties of annexation to the United States have twice been negotiated with this Government within the last five years. It is the natural result of events and causes long oper-

ating and now concluding with mutual, cordial consent.

"There is nothing that can impute to us, though this is so great and mighty a nation, any purpose of exercising undue pressure, as has ordinarily been the case in European history where a powerful government has taken possession of, absorbed, and extinguished a smaller. The only question we have to consider, when this little commonwealth with open hands offers itself to us, is whether we would be better off by taking this step; whether it would be advantageous to us to accept these islands; whether they are worth owning; whether their possession is of any value to us or not.

"That is a simple question and ought to be easily answered. Other nations have long since expressed their opinion of the value of the islands in many ways. Though it is a very small nationality, a very small extent of the earth's surface, not equal in people to a congressional district represented on this floor, yet 19 nations continually maintain representatives at Honolulu to watch their interests. We keep there to-day an envoy extraordinary and minister plenipotentiary. Why? Not because they are fertile and beautiful islands, not because there are a little over a hundred thousand people there. No; it is because of the supreme importance and value of the islands on account of their position.

"They sit facing our Western coast—that long stretch confronting the great Pacific Ocean, the most extensive body of water in the world, stretching away for six, seven, eight thousand miles—and they are the nearest point to our coast, and far, very far, removed from any other point in that vast sea. They are 2,000 miles away from us. That seems a very considerable distance, but the immense stretch beyond them to the other portions of the earth is so much greater that they seem comparatively near and are a part of our own system.

"With the great change in the construction of fighting ships, all of which are now moved by steam, coal has become an essential of maritime war, as much so as powder or guns, and across that wide ocean any vessel of war coming to attack the United States must stop for coal and supplies at the Hawaiian Islands before it can attack us. No ship can be constructed, no battle ship exists in the world, which can make the trip from the other side of that wide sea to our shores, conduct any operation of hostility against us, and ever get back unless it has its supply of coal renewed.

"We are all pretty familiar with the map—the remarkable position of these islands and the routes that ships are accustomed to follow. I do not suppose that my personal opinion is worth more than that of the average of mankind who are not specially qualified as commanders and mariners, nor that any member of the House is so presumptuous as to consider his own personal opinion itself an important fact.

"But we have on this critical and central question, which is not one of common judgment, the opinions of the most distinguished, specially expert, and able men of the age, the greatest commanders of our armies and our fleets who are living. It is an impressive and convincing fact that all have given the same opinion. There has been no divergence. Every one has stated that the possession of those islands was to us of great importance, many of them say indispensable; that it will diminish, not increase, the necessity for naval force, economize ships of war and not require more; that in the possession of an enemy, if we shall so foolishly and unwisely act as to refuse annexation and permit them to pass into the hands of an enemy, they will furnish a secure base for active operations to harass and destroy the cities of our Western coast; that in

our possession, duly fortified, those islands will paralyze any fleet, however strong, however superior to our own naval force in the Pacific, before it can attack our coast.

"I accept the opinion of men like Admiral Walker and Capt. Mahan and Gen. Schofield, Admiral Belknap, Gen. Alexander, and Admiral Dupont and Chief-Engineer Melville. It is a long list of great sailors and soldiers, distinguished strategists and authorities. The striking fact is that there is no dissent among them. These men, who are authorities, have all concurred as to the great importance of the islands. On one of the islands is Pearl Harbor, now unimproved, a possible stronghold and a refuge for a fleet, which, fortified by the expenditure of half a million dollars and garrisoned and aided by the militia of the island and its resources, can be made impregnable to any naval force, however large.

"I speak of a naval force. To capture it there must be a land force also. The possession of all the islands was stated by these able men, who were before the committee, to be essential, as they would furnish a valuable militia to promptly co-operate with a garrison of one or two regiments of artillery until, in the short distance from our shore, we could re-enforce them with abundant military strength to repel the assault of the disembarking troops, who must come many thousands of miles farther than our own.

"This is not my mere assertion or opinion on so grave and technical a question. I am merely giving some of the leading points made by those whose names command the respect of the military and naval professions throughout the world and who have said that the possession not only of Pearl Harbor but of all that little group of islands is to us a necessity."

The resolution was vigorously advocated and vigorously attacked. The line of argument in favor was the predominance of American interests, the share of America in civilizing the islands, our long guardianship over them, their necessity as a naval outpost, the danger of Japanese conquest, their eagerness for annexation. The line of argument in opposition was the lack of constitutional authority to take in distant territory, the impropriety of doing by joint resolution what should be done by treaty, the unfitness of the people of Hawaii for citizenship, the danger of ruling them, outside of constitutional provisions, the risk of departing from our traditional policy and venturing upon a career of imperialism.

June 15, a vote was taken on a substitute for the resolution reported by the minority of the Committee on Foreign Affairs. It was as follows:

Resolved by the Senate and House of Representatives of the United States of America in Congress assembled, 1. That the United States will view as an act of hostility any attempt upon the part of any government of Europe or Asia to take or hold possession of the Hawaiian Islands or to exercise upon any pretext or under any conditions sovereign authority therein.

"2. That the United States hereby announces to the people of those islands and to the world their guarantee of the independence of the people of the Hawaiian Islands and their firm determination to maintain the same."

The substitute was rejected by a vote of 96 to 204: absent or not voting, 55.

The joint resolution was then passed by the following vote, taken the same day:

YEAS—Acheson, Adams, Aldrich, Alexander, Babcock, Baker of Illinois, Baker of Maryland, Barham, Barney, Barrows, Bartholdt, Belden, Belford, Belknap, Benner of Pennsylvania, Bennett, Berry,

Bingham, Bishop, Booze, Botkin, Boutell of Illinois, Boutelle of Maine, Brewster, Broderick, Bromwell, Brown, Brownlow, Brucker, Brumm, Bull, Burleigh, Butler, Cannon, Capron, Chickering, Clark of Iowa, Clarke of New Hampshire, Cochran of Missouri, Cochrane of New York, Coddington, Connell, Connolly, Cooper of Wisconsin, Corliss, Cousins, Crump, Cummings, Curtis of Iowa, Curtis of Kansas, Dalzell, Danford, Davenport, Davidson of Wisconsin, Davidson of Kentucky, Dayton, De Vries, Dingley, Dilliver, Dovener, Driggs, Ellis, Ermentrout, Faris, Fenton, Fischer, Fletcher, Foote, Foss, Fowler of New Jersey, Gibson, Gillet of New York, Graff, Greene of Massachusetts, Griffin, Griffith, Grosvenor, Grout, Grow, Hager, Hamilton, Hawley, Heatwole, Hemenway, Henderson, Henry of Connecticut, Henry of Indiana, Hepburn, Hicks, Hilborn, Hill, Hitt, Hooker, Hopkins, Howe, Howell, Hull, Hurley, Jenkins, Johnson of North Dakota, Jones of Washington, Joy, Kelley, Kerr, Ketcham, Kirkpatrick, Knowles, Knox, Kulp, Lacey, Landis, Lawrence, Lewis of Georgia, Lewis of Washington, Linney, Littauer, Livingston, Loud, Loudenslager, Lovering, Low, Lybrand, McCall, McCleary, McCormick, McDonald, McEwan, McIntire, Mahany, Mahon, Mann, Marsh, Marshall, Meekison, Mercer, Mesick, Miller, Mills, Minor, Mitchell, Moody, Morris, Mudd, Newlands, Northway, Norton of South Carolina, Olmsted, Osborne, Otjen, Packer of Pennsylvania, Parker of New Jersey, Payne, Pearce of Missouri, Pearson, Perkins, Peters, Pitney, Powers, Prince, Pugh, Ray, Ridgely, Robbins, Russell, Sauerhering, Shannon, Shattuc, Shelden, Sherman, Showalter, Simpson, Skinner, Smith of Illinois, S. W. Smith, William Alden Smith, Snover, Southard, Southwick, Spalding, Sperry, Steele, Stevens of Minnesota, Stewart of New Jersey, Stewart of Wisconsin, C. W. Stone, Strode of Nebraska, Sulloway, Sulzer, Tawney, Taylor of Alabama, Thorp, Todd, Tongue, Updegraff, Van Voorhis, Vehslage, Walker of Virginia, Wanger, Ward, Warner, Weaver, Weymouth, White of Illinois, White of North Carolina, Wilber, Williams of Pennsylvania, Wise, Yost, Young—209.

NAYS—Adamson, Bailey, Baird, Ball, Bankhead, Bartlett, Bell, Benton, Bland, Bradley, Brantley, Brewer, Broussard, Brundidge, Carmack, Clardy, Clark of Missouri, Clayton, Cooney, Cowherd, Cypripacker, Davey, Davis, De Graffenheid, Dinsmore, Dockery, Elliott, Fitzgerald, Fleming, Fowler of North Carolina, Fox, Gaines, Griggs, Handy, Hartman, Hay, Henry of Mississippi, Henry of Texas, Hinrichsen, Howard of Alabama, Howard of Georgia, Jett, Johnson of Indiana, Jones of Virginia, Kitchen, Kleberg, Lamb, Lanham, Lester, Little, Lloyd, Love, McAleer, McCulloch, McDowell, McMillin, McRae, Maguire, Martin, Maxwell, Meyer of Louisiana, Moon, Ogden, Pierce of Tennessee, Rhea, Richardson, Rixey, Robb, Robertson of Louisiana, Robinson of Indiana, Sayers, Settle, Shafroth, Shuford, Sims, Slayden, Sparkman, Stallings, Stark, Stephens of Texas, Stokes, Strait, Strowd of North Carolina, Swanson, Tate, Underwood, Vandiver, Wadsworth, Wheeler of Kentucky, Williams of Mississippi, Wilson—91.

ANSWERED "PRESENT"—Bodine, Burke, King, Norton of Ohio, Terry, Zenor—6.

NOT VOTING—Allen, Arnold, Barber, Barlow, Barrett, Beach, Brenner of Ohio, Brosius, Burton, Campbell, Castle, Catchings, Colson, Cooper of Texas, Cox, Cranford, De Armond, Dorr, Eddy, Evans, Fitzpatrick, Gardner, Gillett of Massachusetts, Greene of Nebraska, Gunn, Harmer, Hunter, Latimer, Lentz, Lorimer, McClellan, Maddox, Miers of Indiana, Odell, Otey, Overstreet, Quigg, Reeves, Royse, Smith of Kentucky, Sprague, W. A. Stone, Sturtevant, Sutherland, Talbert, Taylor of Ohio, Vincent, Walker of Massachusetts, Wheeler of Alabama—49.

The resolution was reported in the Senate June 17; it was taken up for discussion June 20; and the debate continued until July 6, when the resolution was adopted. Those in favor of it refrained from discussion, and the speeches delivered were mainly in opposition to the measure.

These extracts from the argument of the late Senator from Vermont, the venerable and lamented Morrill, represent the drift of conservative opinion against annexation:

"On our part the annexation of the Hawaiian Islands is only an overdone example of the European colonial system. It belongs to and emanates from the aristocratic school of politics. It has no abhorrence of coolie labor, which is the double cousin of slavery. It covets prodigal expenditures and a big display of power. It does not listen to the still, small voice of peace, industry, and economy, but to the blast of the popular trumpet which would conquer worlds and reign over Hawaii rather than serve in heaven.

"My firm conviction, however, is that annexation of distant islands is not in harmony with the Constitution of the United States, but is conspicuously repugnant thereto; nor is it in harmony with the history or even with any of the recorded opinions of our earliest and ripest statesmen. Claiming nothing in consideration of any words of mine, except for the facts here presented, I have yet to hear any sufficient reasons which should induce me to break the consistency of my record of many years' standing against the annexation of distant foreign lands. May I not ask, Has the country ever lamented the rejection of Santo Domingo? Manifestly no. Let me hope that I may never part with my profound reverence for the eminent statesmen who constructed the Constitution of our republic, and I shall also hope to be pardoned if I should not turn the pictures of the faces of those eminent Americans to the wall, and flout their memory, whose wisdom has guided the great achievements of our country through its first century, although they, 'rich in saving common sense,' flatly refused the doubtful achievement of annexing distant foreign islands.

"The title of the parties now holding the dominion of the Hawaiian Islands is based on conquest without arms, which is better than would have been a title by usurpation, superior to any bargain that might have been made with Liliuokalani, and must now be treated as a *de facto* government. It succeeds to the power and estate of its predecessor, and the United States may extend, if it chooses, some favors to Hawaii, as was done long years ago, but can not afford to even seem to profit by the recent conquest. Nor can the United States afford to accept the validity of the title of the present possessors—all they have—while much of the world and so many Senators hold it open to suspicion and dispute, although held to be excellent by most of those who favor annexation, an anyhow annexation.

"It has been very ominously hinted that other nations, more ambitious, are eager to take these islands in case of our declination, but this is squarely denied by Great Britain, and, were the islanders to so consent, their ingratitude would diminish my grief were we called upon to say, 'Farewell, Hawaii.' But Hawaii will never let go of even our little finger, and the ominous hint is of no more worth than it was when made in the case of Santo Domingo, or of St. John, or St. Thomas, or in the case of Hawaii in 1854, or than any other very cheap theatrical thunder.

"No other nation can offer Hawaii an equal market for its sugar to that of the United States, and such a market is their great and abiding necessity. Hawaii has nothing, however, to, give in re-

turn or no market of the slightest importance to reciprocate. England could not renounce and stultify its free-trade policy by imposing duties on sugar, and then, in the same act of Parliament, provide that all sugar imported from Hawaii should be free of duty. Germany and France are both heavily in the sugar industry, and would be the last to nurse and coddle Hawaii in the same line, as that would only compel them to assume the burden we now bear. They may not like us, but they have been taught—

" 'Heat not a furnace for your foe so hot
That it do singe yourself.'

"The republic of Hawaii, with 'all the world before it where to choose,' would not commit commercial suicide by the blunder of trying to find a better friend than the United States. No other nation will seek their acquisition so long as we let it be known, as we have done for more than fifty years, that the United States would regard it as an unfriendly act and would resist it.

"The *personnel* of the present Hawaiian Government is guided not only with some skill, but with sufficient 'iron and blood' to maintain its independence as a state. I see no good reason for a change. Let us tell them, as we have done for over a half century, 'We are your friend, and your independence as a state will have our continued favor and support.' If a trinity of foreign powers move to combine, or to galvanize the carcass of the ancient Holy Alliance, as some timid people apprehend, in order to curb the United States, the first crack of the European whip will be the only summons required by Americans for the crisis. Later let the historian record whether empires or republics in Europe have been made stronger or weaker by such a conflict. It is known to be perilous to expose imperial armies to political contagion by contact, even in war, with republican soldiers.

"The fact, however, that we have been so long held as the foremost friend of the Hawaiians makes it difficult for any of us to look upon the question of their annexation with absolute justice to the national interests of our own country. Yet that is what we are here for.

"The important question is now presented of the acquisition of this far-away territory—not contiguous, but a straggling litter of islands of volcanic birth, which it is proposed shall somehow actually become an integral part of the territory of our republic. Annexation, it should be honestly confessed, has not been so much sought after by the natives as by the dominant and more astute aliens, who have been fully acclimated by their very tropical sugar dividends.

"After denouncing as forbidden fruit the acquisition of the distant islands of the sea, as we have often done, for which European empires are still so hungry, it appears strange that a change so radical should suddenly blot our past history and present us to the world as eager to acquire even what will be impossible for Americans to assimilate, what will degrade our republican system of government, and can not elevate the general political character of our people.

"The formal annexation of the Hawaiian Islands, under a one-man power, under a republic in name, or whatever form of governmental experiment we may choose or be compelled to prescribe, will advertise the final wreckage of the 'Monroe doctrine,' so long held dear by the American people. Self-respect will compel us to discard and seek a divorce from the glory of a connection with a historic measure to which the public opinion of mankind will at once pronounce us unworthy. We can not afford to denounce and forbid all acquisitions of

territory in the Western Hemisphere by European governments, even at the peril of war, and forthwith embark in a thus bedamned enterprise ourselves. If we would have our yet unstained doctrine respected by others, we must scrupulously practice what we preach.

"Because several of the larger Eastern nations have been in an expensive and furious catch-as-catch-can naval hunt to seize ports and harbors, or any tidbits of the Chinese Empire, it is not a sufficient reason why the United States should suddenly blot its record by showing how easily we can be seduced by a like besetting sin.

"How unfortunate are we that the wonderful value and prodigious importance, military and sentimental, of the Hawaiian Islands had not been discovered earlier, and their annexation pushed prior to our distinct pledge in favor of their 'independence as a state' and before we had rejected these and all other like distant islands, and by rather grandly proposing instead to establish the 'Monroe doctrine,' which we now find more difficult to practice ourselves than it has been to impose upon Europe. Surely Hawaiian annexation would have been less repugnant, less unfortunate, had it been proposed before leprosy had destroyed so large a part of the native population, and especially before the islands had been invaded and so heavily stocked with the Chinese and Japanese contract laborers. Certainly, could these incurable grievances now be removed, the objections to annexation would be less conspicuous, but still formidable, as even then the islands as American dependencies would have had no temptation to the statesmen of the eras of Washington, nor of Jackson or Lincoln.

"Less than 3 per cent. of the present number of inhabitants in Hawaii are of American origin—not enough to dominate or to boss the 97 per cent. of the other nationalities, which could not without too great risk be trusted to self-government, nor even to loyalty to the United States, yet they expect soon, whatever may be the terms of annexation, that they will be full-fledged citizens of an integral part of the Union, entitled to share in governing the United States in both houses of Congress. To this I am irrevocably opposed.

"An examination of the basis of any possible free government in Hawaii, with inhabitants of so many different languages, religions, habits, and traditions, mostly monarchists, presents no encouragement for the creation or permanence of a republican form of government, to which nine out every ten are theoretically as well as practically opposed. The objections apparent there to suffrage, whether free or limited, seem insuperable. To confine suffrage to the 3,080 Americans alone, including men, women, and children, would hardly be submitted to, except at the point of the bayonet. If the natives were allowed to vote, representing 39,504 (including half-castes and lepers), they might restore the deposed Queen, and it would be queer to treat the natives as no longer citizens but savages after we have been their schoolmasters and missionaries so many years. What the Japanese, numbering 25,407, with their rights by treaty, would do if allowed to vote we can only guess that they would antagonize the Chinese, who number 21,006. And there are 15,291 of the unreckoned Portuguese. Certainly none of these could ever be safely counted in favor of leaving the 'paramount' authority in the hands of the United States, and an army of sufficient strength, with the Stars and Stripes, would therefore be a permanent necessity to shield the islands from insurrections and revolutions.

"It has been the happiness of the republic of the United States that it has long and very distinctly had the benefit of a contrast with aristocratic em-

pires and monarchies in relation to colonial dependencies. These arrogant aristocracies nurse their pride and dazzle their subjects with the obedience and enchantments of distant colonies and dependencies, but their condition is now, or was recently, on exhibition by their paternal and maternal wars and rumors of wars in India, North and South Africa, Madagascar, Egypt, China, Philippine Islands, and Cuba.

"These perennial colonial flagellations, or life struggles of colonies and dependencies which refuse to stay conquered, require the increase of big home armies and bigger navies, which can only be maintained by the biggest taxes. The aristocratic empires push the inexorable demand of three to five years of the life of all their young men in military service, and then to be ready for further service until emancipated by the decrepitude of old age. These large standing armies threaten their neighbors, and their neighbors threaten everybody else by an increase of their battle ships. Boundless public debts and double and twisted taxes leave their people poor, with no hope that these grim and stubborn exactions will ever be less.

"Hitherto the statesmen of our republic have kept clear of colonies and dependencies, for it need not be admitted that Alaska is an exception, nor that it is ever more likely to become one of the United States than any other part of the yet unappropriated north pole. Our young men of the republic are at school, or at work on the farm, or busy somewhere learning a trade or a profession from which they may derive a livelihood or the comforts of an independent home. They are not impressed for the regular army, which is so small as to be almost invisible, and wholly composed of volunteers. Two thirds of our rebellion debt has been paid, and we fully expect to pay the remainder, and that it will speedily grow less.

"The historic policy of the republic of the United States for the hundred years just passed, based as it has been upon the sound doctrine promulgated by Washington in his farewell address with words of perennial wisdom against foreign entangling alliances, has taken root in the hearts of the American people, where it is treasured up as their political Bible and can not now be 'mocked at' as merely an ancient tradition. Its acceptance has made the nation great, made it respected. If our fidelity to the well-ripened statesmanship of the Father of his Country shall be perpetuated for the next hundred years as in the past, the honor, prosperity, and power of our republic, it may safely be predicted, will light and lead all the nations."

An amendment to the resolution was offered by Senator White, of California, striking out the phrase "in due form" in the preamble, and inserting the phrase, "by a treaty which has never been ratified but is now pending in the Senate of the United States." It was rejected by a vote of 40 nays to 20 yeas.

An amendment was offered by Senator Pettigrew, of South Dakota: "That contract labor laws and all laws, civil or criminal, now in force in said islands by which men are held for service for a definite term, except in punishment of crime, whereof the party has been duly convicted, are hereby repealed." It was rejected by a vote of 41 nays to 22 yeas.

An amendment was offered by Senator Bacon, of Georgia: "That this resolution shall not be operative and of binding effect upon either the United States of America or the republic of Hawaii until the same shall have been consented to and approved by the majority of the voters voting at an election to be held in the Hawaiian Islands, at which election all male natives of such islands of the age of twenty-one years, and all naturalized male persons in said

islands of the age of twenty-one years, shall be duly qualified voters. The said election shall be held at a time and in the manner and under regulations to be prescribed by the President of the United States." It was rejected by a vote of 42 nays to 20 yeas.

An amendment was offered by Senator Faulkner, of West Virginia: "That until Congress provides a system of government for Hawaii the officers of the existing Government, and not persons appointed by the President, shall exercise authority under existing laws, not in conflict with the Constitution and laws of the United States." The amendment was rejected by a vote of 43 nays to 20 yeas.

An amendment providing for an excise tax on Hawaiian sugar imported into the United States during a period of ten years was also rejected; also an amendment providing that all male persons over twenty-one years of age born on the islands are citizens thereof, and that all male persons twenty-one years of age naturalized on the islands shall be entitled to vote at all elections hereafter held on such islands; also an amendment by way of substitute; and also an amendment providing that the United States shall maintain the silver money coined by the Government of Hawaii at a parity with gold.

The vote on the passage of the resolution was as follows:

YEAS—Allison, Baker, Burrows, Cannon, Carter, Clark, Cullom, Davis, Deboe, Elkins, Fairbanks, Foraker, Frye, Gallinger, Gorman, Hale, Hanna, Hansbrough, Hawley, Hoar, Kyle, Lodge, McBride, McLaurin, Monby, Morgan, Nelson, Penrose, Perkins, Pettus, Platt of Connecticut, Pritchard, Proctor, Sewell, Shoup, Sullivan, Teller, Warren, Wellington, Wetmore, Wilson, Wolcott—42.

NAYS—Allen, Bacon, Bate, Berry, Caffery, Chilton, Clay, Daniel, Faulkner, Jones of Nevada, Lindsay, McNery, Mallory, Mitchell, Morrill, Pasco, Pettigrew, Roach, Turley, Turpie, White—21.

NOT VOTING—Aldrich, Butler, Chandler, Cockrell, Gear, Gray, Harris, Heitfeld, Jones of Arkansas, Kenney, McMillan, Mantle, Martin, Mason, Mills, Murphy, Platt of New York, Quay, Rawlins, Smith, Spooner, Stewart, Thurston, Tillman, Turner, Vest—28.

The resolution was approved by the President, July 7, 1898.

Uniform System of Bankruptcy.—For many years the subject of a bankruptcy law has been before successive Congresses; and a great part of the congressional reports is taken up with the discussion of bankruptcy bills, nearly all of which made progress toward enactment and some of which came close to final success. The public paid little attention to the matter and many members of Congress were indifferent, but there was a persistent effort on the part of certain men with strong convictions as to the good policy of the measure, and in the end they carried the point. At a former session of this Congress the Senate passed a bankruptcy act, and it was taken up in the House of Representatives, Feb. 16, 1898, and, under special order, debated that day and the following day, and passed Feb. 19, with various amendments, by a vote of 159 yeas to 125 nays. The Senate non-concurred in the House amendments, but after conference the measure was adopted in the following shape, June 15, and June 28, and so approved by the President, July 1:

"CHAPTER I.—DEFINITIONS.

"SECTION 1. Meaning of words and phrases.—*a.* The words and phrases used in this act and in proceedings pursuant hereto shall, unless the same be inconsistent with the context, be construed as follows: (1) 'A person against whom a petition has

been filed' shall include a person who has filed a voluntary petition; (2) 'adjudication' shall mean the date of the entry of a decree that the defendant, in a bankruptcy proceeding, is a bankrupt, or if such decree is appealed from, then the date when such decree is finally confirmed; (3) 'appellate courts' shall include the circuit courts of appeals of the United States, the supreme courts of the Territories, and the Supreme Court of the United States; (4) 'bankrupt' shall include a person against whom an involuntary petition or an application to set a composition aside or to revoke a discharge has been filed, or who has filed a voluntary petition, or who has been adjudged a bankrupt; (5) 'clerk' shall mean the clerk of a court of bankruptcy; (6) 'corporations' shall mean all bodies having any of the powers and privileges of private corporations not possessed by individuals or partnerships, and shall include limited or other partnership associations organized under laws making the capital subscribed alone responsible for the debts of the association; (7) 'court' shall mean the court of bankruptcy in which the proceedings are pending, and may include the referee; (8) 'courts of bankruptcy' shall include the district courts of the United States and of the Territories, the Supreme Court of the District of Columbia, and the United States court of the Indian Territory, and of Alaska; (9) 'creditor' shall include any one who owns a demand or claim provable in bankruptcy, and may include his duly authorized agent, attorney, or proxy; (10) 'date of bankruptcy,' or 'time of bankruptcy,' or 'commencement of proceeding,' or 'bankruptcy,' with reference to time, shall mean the date when the petition was filed; (11) 'debt' shall include any debt, demand, or claim provable in bankruptcy; (12) 'discharge' shall mean the release of a bankrupt from all of his debts which are provable in bankruptcy, except such as are excepted by this act; (13) 'document' shall include any book, deed, or instrument in writing; (14) 'holiday' shall include Christmas, the Fourth of July, the 22d of February, and any day appointed by the President of the United States or the Congress of the United States as a holiday or as a day of public fasting or thanksgiving; (15) a person shall be deemed insolvent within the provisions of this act whenever the aggregate of his property, exclusive of any property which he may have conveyed, transferred, concealed, or removed, or permitted to be concealed or removed, with intent to defraud, hinder or delay his creditors, shall not, at a fair valuation, be sufficient in amount to pay his debts; (16) 'judge' shall mean a judge of a court of bankruptcy, not including the referee; (17) 'oath' shall include affirmation; (18) 'officer' shall include clerk, marshal, receiver, referee, and trustee, and the imposing of a duty upon or the forbidding of an act by any officer shall include his successor and any person authorized by law to perform the duties of such officer; (19) 'persons' shall include corporations, except where otherwise specified, and officers, partnerships, and women, and when used with reference to the commission of acts which are herein forbidden shall include persons who are participants in the forbidden acts, and the agents, officers, and members of the board of directors or trustees, or other similar controlling bodies of corporations; (20) 'petition' shall mean a paper filed in a court of bankruptcy or with a clerk or deputy clerk by a debtor praying for the benefits of this act, or by creditors alleging the commission of an act of bankruptcy by a debtor therein named; (21) 'referee' shall mean the referee who has jurisdiction of the case or to whom the case has been referred, or any one acting in his stead; (22) 'conceal' shall include secrete, falsify, and

mutilate; (23) 'secured creditor' shall include a creditor who has security for his debt upon the property of the bankrupt of a nature to be assignable under this act, or who owns such a debt for which some indorser, surety, or other persons secondarily liable for the bankrupt has such security upon the bankrupt's assets; (24) 'States' shall include the Territories, the Indian Territory, Alaska, and the District of Columbia; (25) 'transfer' shall include the sale and every other and different mode of disposing of or parting with property, or the possession of property, absolutely or conditionally, as a payment, pledge, mortgage, gift, or security; (26) 'trustee' shall include all of the trustees of an estate; (27) 'wage earner' shall mean an individual who works for wages, salary, or hire, at a rate of compensation not exceeding \$1,500 per year; (28) words importing the masculine gender may be applied to and include corporations, partnerships, and women; (29) words importing the plural number may be applied to and mean only a single person or thing; (30) words importing the singular number may be applied to and mean several persons or things.

* CHAPTER II.—CREATION OF COURTS OF BANKRUPTCY AND THEIR JURISDICTION.

"SEC. 2. That the courts of bankruptcy as hereinafore defined, viz., the district courts of the United States in the several States, the Supreme Court of the District of Columbia, the district courts of the several Territories, and the United States courts in the Indian Territory and the District of Alaska, are hereby made courts of bankruptcy, and are hereby invested, within their respective Territorial limits as now established or as they may be hereafter changed, with such jurisdiction at law and in equity as will enable them to exercise original jurisdiction in bankruptcy proceedings, in vacation in chambers and during their respective terms, as they are now or may be hereafter held, to (1) adjudge persons bankrupt who have had their principal place of business, resided, or had their domicile within their respective Territorial jurisdictions for the preceding six months, or the greater portion thereof, or who do not have their principal place of business, reside, or have their domicile, within the United States, but have property within their jurisdictions, or who have been adjudged bankrupts by courts of competent jurisdiction without the United States, and have property within their jurisdictions; (2) allow claims, disallow claims, reconsider allowed or disallowed claims, and allow or disallow them against bankrupt estates; (3) appoint receivers or the marshals, upon application of parties in interest, in case the courts shall find it absolutely necessary, for the preservation of estates, to take charge of the property of bankrupts after the filing of the petition and until it is dismissed or the trustee is qualified; (4) arraign, try, and punish bankrupts, officers, and other persons, and the agents, officers, members of the board of directors or trustees, or other similar controlling bodies, of corporations for violations of this act, in accordance with the laws of procedure of the United States now in force, or such as may be hereafter enacted regulating trials for the alleged violation of laws of the United States; (5) authorize the business of bankrupts to be conducted for limited periods by receivers, the marshals, or trustees, if necessary in the best interests of the estates; (6) bring in and substitute additional persons or parties in proceedings in bankruptcy when necessary for the complete determination of a matter in controversy; (7) cause the estates of bankrupts to be collected, reduced to money and distributed, and determine controversies in relation thereto, except as herein otherwise provided; (8) close estates, when-

ever it appears that they have been fully administered, by approving the final accounts and discharging the trustees, and reopen them whenever it appears they were closed before being fully administered; (9) confirm or reject compositions between debtors and their creditors, and set aside compositions and reinstate the cases; (10) consider and confirm, modify or overrule, or return with instructions for further proceedings, records, and findings certified to them by referees; (11) determine all claims of bankrupts to their exemptions; (12) discharge or refuse to discharge bankrupts and set aside discharges and reinstate the cases; (13) enforce obedience by bankrupts, officers, and other persons to all lawful orders, by fine or imprisonment or fine and imprisonment; (14) extradite bankrupts from their respective districts to other districts; (15) make such orders, issue such process, and enter such judgments in addition to those specifically provided for as may be necessary for the enforcement of the provisions of this act; (16) punish persons for contempts committed before referees; (17) pursuant to the recommendation of creditors, or when they neglect to recommend the appointment of trustees, appoint trustees, and upon complaints of creditors, remove trustees for cause upon hearings and after notices to them; (18) tax costs, whenever they are allowed by law, and render judgments therefor against the unsuccessful party, or the successful party for cause, or in part against each of the parties, and against estates, in proceedings in bankruptcy; and (19) transfer cases to other courts of bankruptcy.

"Nothing in this section contained shall be construed to deprive a court of bankruptcy of any power it would possess were certain specific powers not herein enumerated.

" CHAPTER III.—BANKRUPTS.

"SEC. 3. Acts of Bankruptcy.—a. Acts of bankruptcy by a person shall consist of his having (1) conveyed, transferred, concealed, or removed, or permitted to be concealed or removed, any part of his property with intent to hinder, delay or defraud his creditors, or any of them; or (2) transferred, while insolvent, any portion of his property to one or more of his creditors with intent to prefer such creditors over his other creditors; or (3) suffered or permitted, while insolvent, any creditor to obtain a preference through legal proceedings, and not having at least five days before a sale or final disposition of any property affected by such preference vacated or discharged such preference; or (4) made a general assignment for the benefit of his creditors; or (5) admitted in writing his inability to pay his debts and his willingness to be adjudged a bankrupt on that ground.

"b. A petition may be filed against a person who is insolvent and who has committed an act of bankruptcy within four months after the commission of such act. Such time shall not expire until four months after (1) the date of the recording or registering of the transfer or assignment when the act consists in having made a transfer of any of his property with intent to hinder, delay, or defraud his creditors or for the purpose of giving a preference as hereinbefore provided, or a general assignment for the benefit of his creditors, if by law such recording or registering is required or permitted, or, if it is not, from the date when the beneficiary takes notorious, exclusive or continuous possession of the property unless the petitioning creditors have received actual notice of such transfer or assignment.

"c. It shall be a complete defense to any proceedings in bankruptcy instituted under the first subdivision of this section to allege and prove that the

party proceeded against was not insolvent as defined in this act at the time of the filing the petition against him, and if solvency at such date is proved by the alleged bankrupt the proceedings shall be dismissed, and under said subdivision 1 the burden of proving solvency shall be on the alleged bankrupt.

"d. Whenever a person against whom a petition has been filed as hereinbefore provided under the second and third subdivisions of this section takes issue with and denies the allegation of his insolvency, it shall be his duty to appear in court on the hearing, with his books, papers, and accounts, and submit to an examination, and give testimony as to all matters tending to establish solvency or insolvency, and in case of his failure to so attend and submit to examination the burden of proving his solvency shall rest upon him.

"e. Whenever a petition is filed by any person for the purpose of having another adjudged a bankrupt, and an application is made to take charge of and hold the property of the alleged bankrupt or any part of the same, prior to the adjudication and pending a hearing on the petition, the petitioner or applicant shall file in the same court a bond, with at least two good and sufficient sureties, who shall reside within the jurisdiction of said court, to be approved by the court or a judge thereof, in such sum as the court shall direct, conditioned for the payment, in case such petition is dismissed, to the respondent, his or her personal representatives all costs, expenses, and damages occasioned by such seizure, taking, and detention of the property of the alleged bankrupt.

"If such petition be dismissed by the court or withdrawn by the petitioner, the respondent or respondents shall be allowed all costs, counsel fees, expenses, and damages occasioned by such seizure, taking, or detention of such property. Counsel fees, costs, expenses, and damages shall be fixed and allowed by the court and paid by the obligors in such bond.

"SEC. 4. Who may become bankrupts.—a. Any person who owes debts, except a corporation, shall be entitled to the benefits of this act as a voluntary bankrupt.

"b. Any natural person, except a wage earner or a person engaged chiefly in farming or the tillage of the soil, any unincorporated company, and any corporation engaged principally in manufacturing, trading, printing, publishing, or mercantile pursuits, owing debts to the amount of \$1,000 or over, may be adjudged an involuntary bankrupt upon default or an impartial trial, and shall be subject to the provisions and entitled to the benefits of this act. Private bankers, but not national banks or banks incorporated under State or Territorial laws, may be adjudged involuntary bankrupts.

"SEC. 5. Partners.—a. A partnership during the continuation of the partnership business or after its dissolution and before the final settlement thereof, may be adjudged a bankrupt.

"b. The creditors of the partnership shall appoint the trustee; in other respects so far as possible the estate shall be administered as herein provided for other estates.

"c. The court of bankruptcy which has jurisdiction of one of the partners may have jurisdiction of all the partners and of the administration of the partnership and individual property.

"d. The trustee shall keep separate accounts of the partnership property and of the property belonging to the individual partners.

"e. The expenses shall be paid from the partnership property and the individual property in such proportion as the court shall determine.

"f. The net proceeds of the partnership property

shall be appropriated to the payment of the partnership debts, and the net proceeds of the individual estate of each partner to the payment of his individual debts. Should any surplus remain of the property of any partner after paying his individual debts, such surplus shall be added to the partnership assets and be applied to the payment of the partnership debts. Should any surplus of the partnership property remain after paying the partnership debts, such surplus shall be added to the assets of the individual partners in the proportion of their respective interests in the partnership.

"g. The court may permit the proof of the claim of the partnership estate against the individual estates, and *vice versa*, and may marshal the assets of the partnership estate and individual estates so as to prevent preferences and secure the equitable distribution of the property of the several estates.

"h. In the event of one or more but not all of the members of a partnership being adjudged bankrupt, the partnership property shall not be administered in bankruptcy, unless by consent of the partner or partners not adjudged bankrupt; but such partner or partners not adjudged bankrupt shall settle the partnership business as expeditiously as its nature will permit, and account for the interest of the partner or partners adjudged bankrupt.

"SEC. 6. Exemptions of bankrupts.—a. This act shall not affect the allowance to bankrupts of the exemptions which are prescribed by the State laws in force at the time of the filing of the petition in the State wherein they have had their domicile for the six months or the greater portion thereof immediately preceding the filing of the petition.

"SEC. 7. Duties of bankrupts.—a. The bankrupt shall (1) attend the first meeting of his creditors, if directed by the court or a judge thereof to do so, and the hearing upon his application for a discharge, if filed; (2) comply with all lawful orders of the court; (3) examine the correctness of all proofs of claims filed against his estate; (4) execute and deliver such papers as shall be ordered by the court; (5) execute to his trustee transfers of all his property in foreign countries; (6) immediately inform his trustee of any attempt, by his creditors or other persons, to evade the provisions of this act, coming to his knowledge; (7) in case of any person having to his knowledge proved a false claim against his estate, disclose that fact immediately to his trustee; (8) prepare, make oath to, and file in court within ten days, unless further time is granted, after the adjudication, if an involuntary bankrupt, and with the petition if a voluntary bankrupt, a schedule of his property showing the amount and kind of property, the location thereof, its money value in detail, and a list of his creditors, showing their residences, if known, if unknown, that fact to be stated, the amounts due each of them, the consideration thereof, the security held by them, if any, and a claim for such exemptions as he may be entitled to, all in triplicate, one copy of each for the clerk, one for the referee, and one for the trustee; and (9) when present at the first meeting of his creditors, and at such other times as the court shall order, submit to an examination concerning the conducting of his business, the cause of his bankruptcy, his dealings with his creditors and other persons, the amount, kind and whereabouts of his property, and, in addition, all matters which may affect the administration and settlement of his estate; but no testimony given by him shall be offered in evidence against him in any criminal proceeding.

"Provided, however, That he shall not be required to attend a meeting of his creditors, or at or for an

examination at a place more than 150 miles distant from his home or principal place of business, or to examine claims except when presented to him, unless ordered by the court or a judge thereof for cause shown, and the bankrupt shall be paid his actual expenses from the estate when examined or required to attend at any place other than the city, town, or village of his residence.

"Sec. 8. Death or insanity of bankrupts.—*a.* The death or insanity of a bankrupt shall not abate the proceedings, but the same shall be conducted and concluded in the same manner, so far as possible, as though he had not died or become insane: *Provided*, That in case of death the widow and children shall be entitled to all rights of dower and allowance fixed by the laws of the State of the bankrupt's residence.

"Sec. 9. Protection and detention of bankrupts.—*a.* A bankrupt shall be exempt from arrest upon civil process except in the following cases: (1) When issued from a court of bankruptcy for contempt or disobedience of its lawful orders; (2) when issued from a State court having jurisdiction, and served within such State, upon a debt or claim from which his discharge in bankruptcy would not be a release, and in such case he shall be exempt from such arrest when in attendance upon a court of bankruptcy, or engaged in the performance of a duty imposed by this act.

"*b.* The judge may, at any time after the filing of a petition by or against a person, and before the expiration of one month after the qualification of the trustee, upon satisfactory proof by the affidavits of at least two persons that such bankrupt is about to leave the district in which he resides or has his principal place of business to avoid examination, and that his departure will defeat the proceedings in bankruptcy, issue a warrant to the marshal directing him to bring such bankrupt forthwith before the court for examination. If upon hearing the evidence of the parties it shall appear to the court, or a judge thereof, that the allegations are true and that it is necessary, he shall order such marshal to keep such bankrupt in custody not exceeding ten days, but not imprison him, until he shall be examined and released, or give bail conditioned for his appearance for examination, from time to time, not exceeding in all ten days, as required by the court, and for his obedience to all lawful orders made in reference thereto.

"Sec. 10. Extradition of bankrupts.—*a.* Whenever a warrant for the apprehension of a bankrupt shall have been issued, and he shall have been found within the jurisdiction of a court other than the one issuing the warrant, he may be extradited in the same manner in which persons under indictment are now extradited from one district within which a district court has jurisdiction to another.

"Sec. 11. Suits by and against bankrupts.—*a.* A suit which is founded upon a claim from which a discharge would be a release, and which is pending against a person at the time of the filing of a petition against him, shall be stayed until after an adjudication or the dismissal of the petition; if such person is adjudged a bankrupt, such action may be further stayed until twelve months after the date of such adjudication, or, if within that time such person applies for a discharge, then until the question of such discharge is determined.

"*b.* The court may order the trustee to enter his appearance and defend any pending suit against the bankrupt.

"*c.* A trustee may, with the approval of the court, be permitted to prosecute as trustee any suit commenced by the bankrupt prior to the adjudication with like force and effect as though it had been commenced by him.

"*d.* Suits shall not be brought by or against a trustee of a bankrupt estate subsequent to two years after the estate has been closed.

"Sec. 12. Compositions, when confirmed.—*a.* A bankrupt may offer terms of composition to his creditors after, but not before, he has been examined in open court or at a meeting of his creditors and filed in court the schedule of his property and list of his creditors, required to be filed by bankrupts.

"*b.* An application for the confirmation of a composition may be filed in the court of bankruptcy after, but not before, it has been accepted in writing by a majority in number of all creditors whose claims have been allowed, which number must represent a majority in amount of such claims, and the consideration to be paid by the bankrupt to his creditors, and the money necessary to pay all debts which have priority and the cost of the proceedings, have been deposited in such place as shall be designated by and subject to the order of the judge.

"*c.* A date and place, with reference to the convenience of the parties in interest, shall be fixed for the hearing upon each application for the confirmation of a composition and such objections as may be made to its confirmation.

"*d.* The judge shall confirm a composition if satisfied that (1) it is for the best interests of the creditors; (2) the bankrupt has not been guilty of any of the acts or failed to perform any of the duties which would be a bar to his discharge; and (3) the offer and its acceptance are in good faith and have not been made or procured except as herein provided, or by any means, promises, or acts herein forbidden.

"*e.* Upon the confirmation of a composition, the consideration shall be distributed as the judge shall direct, and the case dismissed. Whenever a composition is not confirmed, the estate shall be administered in bankruptcy as herein provided.

"Sec. 13. Compositions, when set aside.—*a.* The judge may, upon the application of parties in interest, filed at any time within six months after a composition has been confirmed, set the same aside and reinstate the case if it shall be made to appear upon a trial that fraud was practiced in the procuring of such composition, and that the knowledge thereof has come to the petitioners since the confirmation of such composition.

"Sec. 14. Discharges, when granted.—*a.* Any person may, after the expiration of one month and within the next twelve months subsequent to being adjudged a bankrupt, file an application for a discharge in the court of bankruptcy in which the proceedings are pending; if it shall be made to appear to the judge that the bankrupt was unavoidably prevented from filing it within such time, it may be filed within but not after the expiration of the next six months.

"*b.* The judge shall hear the application for a discharge, and such proofs and pleas as may be made in opposition thereto by parties in interest, at such time as will give parties in interest a reasonable opportunity to be fully heard, and investigate the merits of the application and discharge the applicant unless he has (1) committed an offense punishable by imprisonment as herein provided; or (2) with fraudulent intent to conceal his true financial condition and in contemplation of bankruptcy, destroyed, concealed, or failed to keep books of account or records from which his true condition might be ascertained.

"*c.* The confirmation of a composition shall discharge the bankrupt from his debts, other than those agreed to be paid by the terms of the composition and those not affected by a discharge.

"Sec. 15. Discharges, when revoked.—*a.* The judge may, upon the application of parties in interest who have not been guilty of undue laches,

filed at any time within one year after a discharge shall have been granted, revoke it upon a trial if it shall be made to appear that it was obtained through the fraud of the bankrupt, and that the knowledge of the fraud has come to the petitioners since the granting of the discharge, and that the actual facts did not warrant the discharge.

"Sec. 16. Codebtors of bankrupts.—*a.* The liability of a person who is a codebtor with, or guarantor or in any manner a surety for, a bankrupt shall not be altered by the discharge of such bankrupt.

"Sec. 17. Debts not affected by a discharge.—*a.* A discharge in bankruptcy shall release a bankrupt from all of his provable debts, except such as (1) are due as a tax levied by the United States, and State, county, district, or municipality in which he resides; (2) are judgments in actions for frauds, or obtaining property by false pretenses or false representations, or for willful and malicious injuries to the person or property of another; (3) have not been duly scheduled in time for proof and allowance, with the name of the creditor if known to the bankrupt, unless such creditor had notice or actual knowledge of the proceedings in bankruptcy; or (4) were created by his fraud, embezzlement, misappropriation, or defalcation while acting as an officer or in any fiduciary capacity.

"CHAPTER IV.—COURTS AND PROCEDURE THEREIN.

"Sec. 18. Process, pleadings, and adjudications.

—*a.* Upon the filing of a petition for involuntary bankruptcy, service thereof, with a writ of subpoena, shall be made upon the person therein named as defendant in the same manner that service of such process is now had upon the commencement of a suit in equity in the courts of the United States, except that it shall be returnable within fifteen days, unless the judge shall for cause fix a longer time; but in case personal service can not be made, then notice shall be given by publication in the same manner and for the same time as provided by law for notice by publication in suits in equity in courts of the United States.

"*b.* The bankrupt, or any creditor, may appear and plead to the petition within ten days after the return day, or within such further time as the court may allow.

"*c.* All pleadings setting up matters of fact shall be verified under oath.

"*d.* If the bankrupt, or any of his creditors, shall appear, within the time limited, and controvert the facts alleged in the petition, the judge shall determine, as soon as may be, the issues presented by the pleadings, without the intervention of a jury, except in cases where a jury trial is given by this act, and make the adjudication or dismiss the petition.

"*e.* If on the last day within which pleadings may be filed none are filed by the bankrupt or any of his creditors, the judge shall on the next day, if present, or as soon thereafter as practicable, make the adjudication or dismiss the petition.

"*f.* If the judge is absent from the district, or the division of the district in which the petition is pending, on the next day after the last day on which pleadings may be filed, and none have been filed by the bankrupt or any of his creditors, the clerk shall forthwith refer the case to the referee.

"*g.* Upon the filing of a voluntary petition the judge shall hear the petition and make the adjudication or dismiss the petition. If the judge is absent from the district, or the division of the district in which the petition is filed, at the time of the filing, the clerk shall forthwith refer the case to the referee.

"Sec. 19. Jury trials.—*a.* A person against whom an involuntary petition has been filed shall be en-

titled to have a trial by jury, in respect to the question of his insolvency, except as herein otherwise provided, and any act of bankruptcy alleged in such petition to have been committed, upon filing a written application therefor at or before the time within which an answer may be filed. If such application is not filed within such time, a trial by jury shall be deemed to have been waived.

"*b.* If a jury is not in attendance upon the court, one may be specially summoned for the trial, or the case may be postponed, or, if the case is pending in one of the district courts within the jurisdiction of a circuit court of the United States, it may be certified for trial to the circuit court sitting at the same place, or by consent of parties when sitting at any other place in the same district, if such circuit court has or is to have a jury first in attendance.

"*c.* The right to submit matters in controversy, or an alleged offense under this act, to a jury shall be determined and enjoyed, except as provided by this act, according to the United States laws now in force or such as may be hereafter enacted in relation to trials by jury.

"Sec. 20. Oaths, affirmations.—*a.* Oaths required by this act, except upon hearings in court, may be administered by (1) referees; (2) officers authorized to administer oaths in proceedings before the courts of the United States, or under the laws of the State where the same are to be taken; and (3) diplomatic or consular officers of the United States in any foreign country.

"*b.* Any person conscientiously opposed to taking an oath may, in lieu thereof, affirm. Any person who shall affirm falsely shall be punished as for the making of a false oath.

"Sec. 21. Evidence.—*a.* A court of bankruptcy may, upon application of any officer, bankrupt, or creditor, by order require any designated person, including the bankrupt, who is a competent witness under the laws of the State in which the proceedings are pending, to appear in court or before a referee or the judge of any State court, to be examined concerning the acts, conduct, or property of a bankrupt whose estate is in process of administration under this act.

"*b.* The right to take depositions in proceedings under this act shall be determined and enjoyed according to the United States laws now in force, or such as may be hereafter enacted relating to the taking of depositions, except as herein provided.

"*c.* Notice of the taking of depositions shall be filed with the referee in every case. When depositions are to be taken in opposition to the allowance of a claim notice shall also be served upon the claimant, and when in opposition to a discharge notice shall also be served upon the bankrupt.

"*d.* Certified copies of proceedings before a referee or of papers, when issued by the clerk or referee, shall be admitted as evidence with like force and effect as certified copies of the records of district courts of the United States are now or may hereafter be admitted as evidence.

"*e.* A certified copy of the order approving the bond of a trustee shall constitute conclusive evidence of the vesting in him of the title to the property of the bankrupt, and if recorded shall impart the same notice that a deed from the bankrupt to the trustee if recorded would have imparted had not bankruptcy proceedings intervened.

"*f.* A certified copy of an order confirming or setting aside a composition or granting or setting aside a discharge, not revoked, shall be evidence of the jurisdiction of the court, the regularity of the proceedings, and of the fact that the order was made.

"*g.* A certified copy of an order confirming a composition shall constitute evidence of the revesting of the title of his property in the bankrupt, and

if recorded shall impart the same notice that a deed from the trustee to the bankrupt if recorded would impart.

"Sec. 22. Reference of cases after adjudication.—
 a. After a person has been adjudged a bankrupt the judge may cause the trustee to proceed with the administration of the estate, or refer it (1) generally to the referee or specially with only limited authority to act in the premises or to consider and report upon specified issues; or (2) to any referee within the territorial jurisdiction of the court, if the convenience of parties in interest will be served thereby, or for cause, or if the bankrupt does not do business, reside, or have his domicile in the district.

—b. The judge may, at any time, for the convenience of parties or for cause, transfer a case from one referee to another.

"Sec. 23. Jurisdiction of United States and State courts.—a. The United States circuit courts shall have jurisdiction of all controversies at law and in equity, as distinguished from proceedings in bankruptcy, between trustees as such and adverse claimants concerning the property acquired or claimed by the trustees, in the same manner and to the same extent only as though bankruptcy proceedings had not been instituted and such controversies had been between the bankrupts and such adverse claimants.

—b. Suits by the trustee shall only be brought or prosecuted in the courts where the bankrupt, whose estate is being administered by such trustee, might have brought or prosecuted them if proceedings in bankruptcy had not been instituted, unless by consent of the proposed defendant.

—c. The United States circuit courts shall have concurrent jurisdiction with the courts of bankruptcy, within their respective territorial limits, of the offenses enumerated in this act.

"Sec. 24. Jurisdiction of appellate courts.—a. The Supreme Court of the United States, the circuit courts of appeals of the United States, and the supreme courts of the Territories, in vacation in chambers and during their respective terms, as now or as they may be hereafter held, are hereby invested with appellate jurisdiction of controversies arising in bankruptcy proceedings from the courts of bankruptcy from which they have appellate jurisdiction in other cases. The Supreme Court of the United States shall exercise a like jurisdiction from courts of bankruptcy not within any organized circuit of the United States and from the Supreme Court of the District of Columbia.

—b. The several circuit courts of appeals shall have jurisdiction in equity, either interlocutory or final, to superintend and revise in matter of law the proceedings of the several inferior courts of bankruptcy within their jurisdiction. Such power shall be exercised on due notice and petition by any party aggrieved.

"Sec. 25. Appeals and writs of error.—a. That appeals, as in equity cases, may be taken in bankruptcy proceedings from the courts of bankruptcy to the circuit court of appeals of the United States, and to the supreme court of the Territories, in the following cases, to wit, (1) from a judgment adjudging or refusing to adjudge the defendant a bankrupt; (2) from a judgment granting or denying a discharge; and (3) from a judgment allowing or rejecting a debt or claim of \$500 or over. Such appeal shall be taken within ten days after the judgment appealed from has been rendered, and may be heard and determined by the appellate court in term or vacation, as the case may be.

—b. From any final decision of a court of appeals, allowing for rejecting a claim under this act, an appeal may be had under such rules and within such time as may be prescribed by the Supreme Court of

the United States in the following cases, and no other:

"1. Where the amount in controversy exceeds the sum of \$2,000, and the question involved is one which might have been taken on appeal or writ of error from the highest court of a State to the Supreme Court of the United States; or

"2. Where some justice of the Supreme Court of the United States shall certify that in his opinion the determination of the question or questions involved in the allowance or rejection of such claim is essential to a uniform construction of this act throughout the United States.

—c. Trustees shall not be required to give bond when they take appeals or sue out writs of error.

"Sec. 26. Arbitration of controversies.—a. The trustee may, pursuant to the direction of the court, submit to arbitration any controversy arising in the settlement of the estate.

—b. Three arbitrators shall be chosen by mutual consent, or one by the trustee, one by the other party to the controversy, and the third by the two so chosen, or if they fail to agree in five days after their appointment the court shall appoint the third arbitrator.

—c. The written finding of the arbitrators, or a majority of them, as to the issues presented, may be filed in court and shall have like force and effect as the verdict of a jury.

"Sec. 27. Compromises.—a. The trustee may, with the approval of the court, compromise any controversy arising in the administration of the estate upon such terms as he may deem for the best interests of the estate.

"Sec. 28. Designation of newspapers.—a. Courts of bankruptcy shall by order designate a newspaper published within their respective territorial districts, and in the county in which the bankrupt resides or the major part of his property is situated, in which notices required to be published by this act and orders which the court may direct to be published shall be inserted. Any court may, in a particular case, for the convenience of parties in interest, designate some additional newspaper in which notices and orders in such case shall be published.

"Sec. 29. Offenses.—a. A person shall be punished, by imprisonment for a period not to exceed five years, upon conviction of the offense of having knowingly and fraudulently appropriated to his own use, embezzled, spent, or unlawfully transferred any property or secreted or destroyed any document belonging to a bankrupt estate which came into his charge as trustee.

—b. A person shall be punished, by imprisonment for a period not to exceed two years, upon conviction of the offense of having knowingly and fraudulently (1) concealed while a bankrupt, or after his discharge, from his trustee any of the property belonging to his estate in bankruptcy; or (2) made a false oath or account in, or in relation to, any proceeding in bankruptcy; (3) presented under oath any false claim for proof against the estate of a bankrupt, or used any such claim in composition personally or by agent, proxy, or attorney, or as agent, proxy, or attorney; or (4) received any material amount of property from a bankrupt after the filing of the petition, with intent to defeat this act; or (5) extorted or attempted to extort any money or property from any person as a consideration for acting or forbearing to act in bankruptcy proceedings.

—c. A person shall be punished by fine, not to exceed \$500, and forfeit his office, and the same shall thereupon become vacant, upon conviction of the offense of having knowingly (1) acted as a referee in a case in which he is directly or indirectly interested; or (2) purchased, while a referee, directly or

indirectly, any property of the estate in bankruptcy of which he is referee; or (3) refused, while a referee or trustee, to permit a reasonable opportunity for the inspection of the accounts relating to the affairs of, and the papers and records of, estates in his charge by parties in interest when directed by the court so to do.

"d. A person shall not be prosecuted for any offense arising under this act unless the indictment is found or the information is filed in court within one year after the commission of the offense.

"SEC. 30. Rules, forms, and orders.—a. All necessary rules, forms, and orders as to procedure and for carrying this act into force and effect shall be prescribed, and may be amended from time to time, by the Supreme Court of the United States.

"SEC. 31. Computation of time.—a. Whenever time is enumerated by days in this act, or in any proceeding in bankruptcy, the number of days shall be computed by excluding the first and including the last, unless the last fall on a Sunday or holiday, in which event the day last included shall be the next day thereafter which is not a Sunday or a legal holiday.

"SEC. 32. Transfer of cases.—a. In the event petitions are filed against the same person, or against different members of a partnership, in different courts of bankruptcy each of which has jurisdiction, the cases shall be transferred, by order of the courts relinquishing jurisdiction, to and be consolidated by the one of such courts which can proceed with the same for the greatest convenience of parties in interest.

"CHAPTER V.—OFFICERS, THEIR DUTIES AND COMPENSATION.

"SEC. 33. Creation of two offices.—a. The offices of referee and trustee are hereby created.

"SEC. 34. Appointment, removal, and districts of referees.—a. Courts of bankruptcy shall, within the territorial limits of which they respectively have jurisdiction, (1) appoint referees, each for a term of two years, and may, in their discretion, remove them because their services are not needed or for other cause; and (2) designate, and from time to time change, the limits of the districts of referees, so that each county, where the services of a referee are needed, may constitute at least one district.

"SEC. 35. Qualifications of referees.—a. Individuals shall not be eligible to appointment as referees unless they are respectively (1) competent to perform the duties of that office; (2) not holding any office of profit or emolument under the laws of the United States or of any State other than commissions of deeds, justices of the peace, masters in chancery, or notaries public; (3) not related by consanguinity or affinity, within the third degree as determined by the common law, to any of the judges of the courts of bankruptcy or circuit courts of the United States, or of the justices or judges of the appellate courts of the districts wherein they may be appointed; and (4) residents of, or have their offices in, the territorial districts for which they are to be appointed.

"SEC. 36. Oaths of office of referees.—a. Referees shall take the same oath of office as that prescribed for judges of United States courts.

"SEC. 37. Number of referees.—a. Such number of referees shall be appointed as may be necessary to assist in expeditiously transacting the bankruptcy business pending in the various courts of bankruptcy.

"SEC. 38. Jurisdiction of referees.—a. Referees respectively are hereby invested, subject always to a review by the judge, within the limits of their districts as established from time to time, with jurisdiction to (1) consider all petitions referred to them

by the clerks and make the adjudications or dismiss the petitions; (2) exercise the powers vested in courts of bankruptcy for the administering of oaths to and the examination of persons as witnesses and for requiring the production of documents in proceedings before them, except the power of commitment; (3) exercise the powers of the judge for the taking possession and releasing of the property of the bankrupt in the event of the issuance by the clerk of a certificate showing the absence of a judge from the judicial district, or the division of the district, or his sickness, or inability to act; (4) perform such part of the duties, except as to questions arising out of the applications of bankrupts for compositions or discharges, as are by this act conferred on courts of bankruptcy and as shall be prescribed by rules or orders of the courts of bankruptcy of their respective districts, except as herein otherwise provided; and (5) upon the application of the trustee during the examination of the bankrupts, or other proceedings, authorize the employment of stenographers at the expense of the estates at a compensation not to exceed 10 cents per folio for reporting and transcribing the proceedings.

"SEC. 39. Duties of referees.—a. Referees shall (1) declare dividends and prepare and deliver to trustees dividend sheets showing the dividends declared and to whom payable; (2) examine all schedules of property and lists of creditors filed by bankrupts and cause such as are incomplete or defective to be amended; (3) furnish such information concerning the estates in process of administration before them as may be requested by the parties in interest; (4) give notices to creditors as herein provided; (5) make up records embodying the evidence, or the substance thereof, as agreed upon by the parties in all contested matters arising before them, whenever requested to do so by either of the parties thereto, together with their findings therein, and transmit them to the judges; (6) prepare and file the schedules of property and list of creditors required to be filed by the bankrupts, or cause the same to be done, when the bankrupts fail, refuse, or neglect to do so; (7) safely keep, perfect, and transmit to the clerks the records, herein required to be kept by them, when the cases are concluded; (8) transmit to the clerks such papers as may be on file before them whenever the same are needed in any proceedings in courts, and in like manner secure the return of such papers after they have been used, or if it be impracticable to transmit the original papers, transmit certified copies thereof by mail; (9) upon application of any party in interest, preserve the evidence taken or the substance thereof as agreed upon by the parties before them when a stenographer is not in attendance; and (10) whenever their respective offices are in the same cities or towns where the courts of bankruptcy convene, call upon and receive from the clerks all papers filed in courts of bankruptcy which have been referred to them.

"b. Referees shall not (1) act in cases in which they are directly or indirectly interested; (2) practice as attorneys and counselors at law in any bankruptcy proceedings; or (3) purchase, directly or indirectly, any property of an estate in bankruptcy.

"SEC. 40. Compensation of referees.—a. Referees shall receive as full compensation for their services, payable after they are rendered, a fee of \$10 deposited with the clerk at the time the petition is filed in each case, except when a fee is not required from a voluntary bankrupt, and from estates which have been administered before them 1 per cent. commissions on sums to be paid as dividends and commissions, or one half of 1 per cent. on the amount to be paid to creditors upon the confirmation of a composition.

"b. Whenever a case is transferred from one referee to another, the judge shall determine the proportion in which the fee and commissions therefor shall be divided between the referees.

"c. In the event of the reference of a case being revoked before it is concluded, and when the case is specially referred, the judge shall determine what part of the fee and commissions shall be paid to the referee.

"Sec. 41. Contempts before referees.—a. A person shall not, in proceedings before a referee, (1) disobey or resist any lawful order, process, or writ; (2) misbehave during a hearing or so near the place thereof as to obstruct the same; (3) neglect to produce, having been ordered to do so, any pertinent document; or (4) refuse to appear after having been subpoenaed, or, upon appearing, refuse to take the oath as a witness, or, after having taken the oath, refuse to be examined according to law; *Provided*, That no person shall be required to attend as a witness before a referee at a place outside of the State of his residence, and more than 100 miles from such place of residence, and only in case his lawful mileage and fee for one day's attendance shall be first paid or tendered to him.

"b. The referee shall certify the facts to the judge, if any person shall do any of the things forbidden in this section. The judge shall thereupon, in a summary manner, hear the evidence as to the acts complained of, and, if it is such as to warrant him in so doing, punish such person in the same manner and to the same extent as for a contempt committed before the court of bankruptcy, or commit such person upon the same conditions as if the doing of the forbidden act had occurred with reference to the process of, or in the presence of, the court.

"Sec. 42. Records of referees.—a. The records of all proceedings in each case before a referee shall be kept as nearly as may be in the same manner as records are now kept in equity cases in circuit courts in the United States.

"b. A record of the proceedings in each case shall be kept in a separate book or books, and shall, together with the papers on file, constitute the records of the case.

"c. The book or books containing a record of the proceedings shall, when the case is concluded before the referee, be certified to by him, and, together with such papers as are on file before him, be transmitted to the court of bankruptcy and shall there remain as a part of the records of the court.

"Sec. 43. Referee's absence or disability.—a. Whenever the office of a referee is vacant, or its occupant is absent or disqualified to act, the judge may act, or may appoint another referee, or another referee holding an appointment under the same court may, by order of the judge, temporarily fill the vacancy.

"Sec. 44. Appointment of trustees.—a. The creditors of a bankrupt estate shall, at their first meeting after the adjudication or after a vacancy has occurred in the office of trustee, or after an estate has been reopened, or after a composition has been set aside or a discharge revoked, or if there is a vacancy in the office of trustee, appoint one trustee or three trustees of such estate. If the creditors do not appoint a trustee or trustees as herein provided, the court shall do so.

"Sec. 45. Qualifications of trustees.—a. Trustees may be (1) individuals who are respectively competent to perform the duties of that office, and reside or have an office in the judicial district within which they are appointed, or (2) corporations authorized by their charters or by law to act in such capacity and having an office in the judicial district within which they are appointed.

"Sec. 46. Death or removal of trustees.—a. The death or removal of a trustee shall not abate any

suit or proceeding which he is prosecuting or defending at the time of his death or removal, but the same may be proceeded with or defended by his joint trustee or successor in the same manner as though the same had been commenced or was being defended by such joint trustee alone or by such successor.

"Sec. 47. Duties of trustees.—a. Trustees shall respectively (1) account for and pay over to the estates under their control all interest received by them upon property of such estates; (2) collect and reduce to money the property of the estates for which they are trustees, under the direction of the court, and close up the estate as expeditiously as is compatible with the best interests of the parties in interest; (3) deposit all money received by them in one of the designated depositories; (4) disburse money only by check or draft on the depositories in which it has been deposited; (5) furnish such information concerning the estates of which they are trustees and their administration as may be requested by parties in interest; (6) keep regular accounts showing all amounts received and from what sources and all amounts expended and on what accounts; (7) lay before the final meeting of the creditors detailed statements of the administration of the estates; (8) make final reports and file final accounts with the courts fifteen days before the days fixed for the final meetings of the creditors; (9) pay dividends within ten days after they are declared by the referees; (10) report to the courts, in writing, the condition of the estates and the amounts of money on hand, and such other details as may be required by the courts, within the first month after their appointment and every two months thereafter, unless otherwise ordered by the courts; and (11) set apart the bankrupt's exemptions and report the items and estimated value thereof to the court as soon as practicable after their appointment.

"b. Whenever three trustees have been appointed for an estate, the concurrence of at least two of them shall be necessary to the validity of their every act concerning the administration of the estate.

"Sec. 48. Compensation of trustees.—a. Trustees shall receive, as full compensation for their services, payable after they are rendered, a fee of \$5 deposited with the clerk at the time the petition is filed in each case, except when a fee is not required from a voluntary bankrupt, and from estates which they have administered, such commissions on sums to be paid as dividends and commissions as may be allowed by the courts, not to exceed 3 per cent. on the first \$5,000 or less, 2 per cent. on the second \$5,000 or part thereof, and 1 per cent. on such sums in excess of \$10,000.

"b. In the event of an estate being administered by three trustees instead of one trustee or by successive trustees, the court shall apportion the fees and commissions between them according to the services actually rendered, so that there shall not be paid to trustees for the administering of any estate a greater amount than one trustee would be entitled to.

"c. The court may, in its discretion, withhold all compensation from any trustee who has been removed for cause.

"Sec. 49. Accounts and papers of trustees.—a. The accounts and papers of trustees shall be open to the inspection of officers and all parties in interest.

"Sec. 50. Bonds of referees and trustees.—a. Referees, before assuming the duties of their office, and within such time as the district courts of the United States having jurisdiction shall prescribe, shall respectively qualify by entering into bond to the United States in such sum as shall be fixed by such courts, not to exceed \$5,000, with such sureties

as shall be approved by such courts, conditioned for the faithful performance of their official duties.

"b. Trustees before entering upon the performance of their official duties, and within ten days after their appointment, or within such further time, not to exceed five days, as the court may permit, shall respectively qualify by entering into bond to the United States, with such sureties as shall be approved by the courts, conditioned for the faithful performance of their official duties.

"c. The creditors of a bankrupt estate, at their first meeting after the adjudication, or after a vacancy has occurred in the office of trustee, or after an estate has been reopened, or after a composition has been set aside or a discharge revoked, if there is a vacancy in the office of trustee, shall fix the amount of the bond of the trustee; they may at any time increase the amount of the bond. If the creditors do not fix the amount of the bond of the trustees as herein provided the court shall do so.

"d. The court shall require evidence as to the actual value of the property of sureties.

"e. There shall be at least two sureties upon each bond.

"f. The actual value of the property of the sureties, over and above their liabilities and exemptions on each bond, shall equal at least the amount of such bond.

"g. Corporations organized for the purpose of becoming sureties upon bonds, or authorized by law to do so, may be accepted as sureties upon the bonds of referees and trustees whenever the courts are satisfied that the rights of all parties in interest will be thereby amply protected.

"h. Bonds of referees, trustees, and designated depositories shall be filed of record in the office of the clerk of the court and may be sued upon in the name of the United States for the use of any person injured by a breach of their conditions.

"i. Trustees shall not be liable, personally or on their bonds, to the United States for any penalties or forfeitures incurred by the bankrupts under this act of whose estates they are respectively trustees.

"j. Joint trustees may give joint or several bonds.

"k. If any referee or trustee shall fail to give bond as herein provided and within the time limited, he shall be deemed to have declined his appointment, and such failure shall create a vacancy in his office.

"l. Suits upon referees' bonds shall not be brought subsequent to two years after the alleged breach of the bond.

"m. Suits upon trustees' bonds shall not be brought subsequent to two years after the estate has been closed.

"Sec. 51. Duties of clerks.—a. Clerks shall respectively (1) account for, as for other fees received by them, the clerk's fee paid in each case and such other fees as may be received for certified copies of records which may be prepared for persons other than officers; (2) collect the fees of the clerk, referee, and trustee in each case instituted before filing the petition, except the petition of a proposed voluntary bankrupt which is accompanied by an affidavit stating that the petitioner is without, and can not obtain, the money with which to pay such fees; (3) deliver to the referees upon application all papers which may be referred to them, or, if the offices of such referees are not in the same cities or towns as the offices of such clerks, transmit such papers by mail, and in like manner return papers which were received from such referees after they have been used; (4) and within ten days after each case has been closed pay to the referee, if the case was referred, the fee collected for him, and to the trustee the fee collected for him at the time of filing the petition.

"Sec. 52. Compensation of clerks and marshals.—a. Clerks shall respectively receive as full compensation for their service to each estate a filing fee of \$10, except when a fee is not required from a voluntary bankrupt.

"b. Marshals shall respectively receive from the estate where an adjudication in bankruptcy is made, except as herein otherwise provided, for the performance of their services in proceedings in bankruptcy, the same fees, and account for them in the same way, as they are entitled to receive for the performance of the same or similar services in other cases in accordance with laws now in force, or such as may be hereafter enacted, fixing the compensation of marshals.

"Sec. 53. Duties of Attorney-General.—a. The Attorney-General shall annually lay before Congress statistical tables showing for the whole country, and by States, the number of cases during the year of voluntary and involuntary bankruptcy; the amount of the property of the estates; the dividends paid and the expenses of administering such estates; and such other like information as he may deem important.

"Sec. 54. Statistics of bankruptcy proceedings.—a. Officers shall furnish in writing and transmit by mail such information as is within their knowledge, and as may be shown by the records and papers in their possession, to the Attorney-General, for statistical purposes, within ten days after being requested by him to do so."

"CHAPTER VI.—CREDITORS.

"Sec. 55. Meetings of creditors.—a. The court shall cause the first meeting of the creditors of a bankrupt to be held, not less than ten nor more than thirty days after the adjudication, at the county seat of the county in which the bankrupt has had his principal place of business, resided, or had his domicile; or if that place would be manifestly inconvenient as a place of meeting for the parties in interest, or if the bankrupt is one who does not do business, reside, or have his domicile within the United States, the court shall fix a place for the meeting which is the most convenient for parties in interest. If such meeting should by any mischance not be held within such time, the court shall fix the date, as soon as may be thereafter, when it shall be held.

"b. At the first meeting of creditors the judge or referee shall preside, and, before proceeding with the other business, may allow or disallow the claims of creditors there presented, and may publicly examine the bankrupt or cause him to be examined at the instance of any creditor.

"c. The creditors shall at each meeting take such steps as may be pertinent and necessary for the promotion of the best interests of the estate and the enforcement of this act.

"d. A meeting of creditors, subsequent to the first one, may be held at any time and place when all of the creditors who have secured the allowance of their claims sign a written consent to hold a meeting at such time and place.

"e. The court shall call a meeting of creditors whenever one fourth or more in number of those who have proved their claims shall file a written request to that effect; if such request is signed by a majority of such creditors, which number represents a majority in amount of such claims, and contains a request for such meeting to be held at a designated place, the court shall call such meeting at such place within thirty days after the date of the filing of the request.

"f. Whenever the affairs of the estate are ready to be closed a final meeting of creditors shall be ordered.

"SEC. 56. Voters at meetings of creditors.—*a.* Creditors shall pass upon matters submitted to them at their meetings by a majority vote in number and amount of claims of all creditors whose claims have been allowed and are present, except as herein otherwise provided.

"*b.* Creditors holding claims which are secured or have priority shall not, in respect to such claims, be entitled to vote at creditors' meetings, nor shall such claims be counted in computing either the number of creditors or the amount of their claims, unless the amounts of such claims exceed the values of such securities or priorities, and then only for such excess.

"SEC. 57. Proof and allowance of claims.—*a.* Proof of claims shall consist of a statement under oath, in writing, signed by a creditor setting forth the claim, the consideration therefor, and whether any, and, if so, what securities are held therefor, and whether any, and, if so, what payments have been made thereon, and that the sum claimed is justly owing from the bankrupt to the creditor.

"*b.* Whenever a claim is founded upon an instrument of writing such instrument, unless lost or destroyed, shall be filed with the proof of claim. If such instrument is lost or destroyed, a statement of such fact and of the circumstances of such loss or destruction shall be filed under oath with the claim. After the claim is allowed or disallowed such instrument may be withdrawn by permission of the court upon leaving a copy thereof on file with the claim.

"*c.* Claims after being proved may, for the purpose of allowance, be filed by the claimants in the court where the proceedings are pending or before the referee if the case has been referred.

"*d.* Claims which have been duly proved shall be allowed, upon receipt by or upon presentation to the court, unless objection to their allowance shall be made by parties in interest, or their consideration be continued for cause by the court upon its own motion.

"*e.* Claims of secured creditors and those who have priority may be allowed to enable such creditors to participate in the proceedings at creditors' meetings held prior to the determination of the value of their securities or priorities, but shall be allowed for such sums only as to the courts seem to be owing over and above the value of their securities or priorities.

"*f.* Objections to claims shall be heard and determined as soon as the convenience of the court and the best interests of the estates and the claimants will permit.

"*g.* The claims of creditors who have received preferences shall not be allowed unless such creditors shall surrender their preferences.

"*h.* The value of securities held by secured creditors shall be determined by converting the same into money according to the terms of the agreement pursuant to which such securities were delivered to such creditors or by such creditors and the trustee, by agreement, arbitration, compromise, or litigation, as the court may direct, and the amount of such value shall be credited upon such claims; and a dividend shall be paid only on the unpaid balance.

"*i.* Whenever a creditor, whose claims against a bankrupt estate is secured by the individual undertaking of any person, fails to prove such claim, such person may do so in the creditor's name, and if he discharge such undertaking in whole or in part he shall be subrogated to that extent to the rights of the creditor.

"*j.* Debts owing to the United States, a State, a county, a district, or a municipality as a penalty of forfeiture shall not be allowed, except for the amount of the pecuniary loss sustained by the act,

transaction, or proceeding out of which the penalty of forfeiture arose, with reasonable and actual costs occasioned thereby and such interest as may have accrued thereon according to law.

"*k.* Claims which have been allowed may be reconsidered for cause and reallocated or rejected in whole or in part, according to the equities of the case, before but not after the estate has been closed.

"*l.* Whenever a claim shall have been reconsidered and rejected, in whole or in part, upon which a dividend has been paid, the trustee may recover from the creditor the amount of the dividend received upon the claim if rejected in whole, or the proportional part thereof if rejected only in part.

"*m.* The claim of any estate which is being administered in bankruptcy against any like estate may be proved by the trustee and allowed by the court in the same manner and upon like terms as the claims of other creditors.

"*n.* Claims shall not be proved against a bankrupt estate subsequent to one year after the adjudication; or if they are liquidated by litigation and the final judgment therein is rendered within thirty days before or after the expiration of such time, then within sixty days after the rendition of such judgment: *Provided*, That the right of infants and insane persons without guardians, without notice of the proceedings, may continue six months longer.

"SEC. 58. Notices to creditors.—*a.* Creditors shall have at least ten days' notice by mail to their respective addresses as they appear in the list of creditors of the bankrupt, or as afterward filed with the papers in the case by the creditors, unless they waive notice in writing, of (1) all examinations of the bankrupt; (2) all hearings upon applications for the confirmation of compositions or the discharge of bankrupts; (3) all meetings of creditors; (4) all proposed sales of property; (5) the declaration and time of payment of dividends; (6) the filing of the final accounts of the trustee, and the time when and the place where they will be examined and passed upon; (7) the proposed compromise of any controversy; and (8) the proposed dismissal of the proceedings.

"*b.* Notice to creditors of the first meeting shall be published at least once and may be published such number of additional times as the court may direct; the last publication shall be at least one week prior to the date fixed for the meeting. Other notices may be published as the court shall direct.

"*c.* All notices shall be given by the referee, unless otherwise ordered by the judge.

"SEC. 59. Who may file and dismiss petitions.—*a.* Any qualified person may file a petition to be adjudged a voluntary bankrupt.

"*b.* Three or more creditors who have provable claims against any person which amount in the aggregate, in excess of the value of securities held by them, if any, to \$500 or over, or if all of the creditors of such person are less than twelve in number, then one of such creditors whose claim equals such amount may file a petition to have him adjudged a bankrupt.

"*c.* Petitions shall be filed in duplicate, one copy for the clerk and one for service on the bankrupt.

"*d.* If it be averred in the petition that the creditors of the bankrupt are less than twelve in number, and less than three creditors have joined as petitioners therein, and the answer avers the existence of a larger number of creditors, there shall be filed with the answer a list under oath of all the creditors, with their addresses, and thereupon the court shall cause all such creditors to be notified of the pendency of such petition and shall delay the hearing upon such petition for a reasonable time, to the end that parties in interest shall have an opportunity to be heard; if, upon such hearing, it shall appear that

a sufficient number have joined in such petition, or if prior to or during such hearing a sufficient number shall join therein, the case may be proceeded with, but otherwise it shall be dismissed.

"e. In computing the number of creditors of a bankrupt for the purpose of determining how many creditors must join in the petition, such creditors as were employed by him at the time of the filing of the petition or are related to him by consanguinity or affinity within the third degree, as determined by the common law, and have not joined in the petition, shall not be counted.

"f. Creditors other than original petitioners may at any time enter their appearance and join in the petition, or file an answer and be heard in opposition to the prayer of the petition.

"g. A voluntary or involuntary petition shall not be dismissed by the petitioner or petitioners or for want of prosecution or by consent of parties until after notice to the creditors.

"SEC. 60. Preferred creditors.—a. A person shall be deemed to have given a preference if, being insolvent, he has procured or suffered a judgment to be entered against himself in favor of any person, or made a transfer of any of his property, and the effect of the enforcement of such judgment or transfer will be to enable any one of his creditors to obtain a greater percentage of his debt than any other of such creditors of the same class.

"b. If a bankrupt shall have given a preference within four months before the filing of a petition, or after the filing of the petition and before the adjudication, and the person receiving it, or to be benefited thereby, or his agent acting therein, shall have had reasonable cause to believe that it was intended thereby to give a preference, it shall be voidable by the trustee, and he may recover the property or its value from such person.

"c. If a creditor has been preferred, and afterward in good faith gives the debtor further credit without security of any kind for property which becomes a part of the debtor's estates, the amount of such new credit remaining unpaid at the time of the adjudication in bankruptcy may be set off against the amount which would otherwise be recoverable from him.

"d. If a debtor shall, directly or indirectly, in contemplation of the filing of a petition by or against him, pay money or transfer property to an attorney and counselor at law, solicitor in equity, or proctor in admiralty for services to be rendered, the transaction shall be re-examined by the court on petition of the trustee or any creditor and shall only be held valid to the extent of a reasonable amount to be determined by the court, and the excess may be recovered by the trustee for the benefit of the estate.

" CHAPTER VII.—ESTATES.

"SEC. 61. Depositories for money.—a. Courts of bankruptcy shall designate, by order, banking institutions as depositories for the money of bankrupt estates, as convenient as may be to the residences of trustees, and shall require bonds to the United States, subject to their approval, to be given by such banking institutions, and may from time to time, as occasion may require, by like order increase the number of depositories or the amount of any bond or change such depositories.

"SEC. 62. Expenses of administering estates.—a. The actual and necessary expenses incurred by officers in the administration of estates shall, except where other provisions are made for their payment, be reported in detail, under oath, and examined and approved or disapproved by the court. If approved, they shall be paid or allowed out of the estates in which they were incurred.

"SEC. 63. Debts which may be proved.—a. Debts of the bankrupt may be proved and allowed against his estate which are (1) a fixed liability, as evidenced by a judgment or an instrument in writing, absolutely owing at the time of the filing of the petition against him, whether then payable or not, with any interest thereon which would have been recoverable at that date or with a rebate of interest upon such as were not then payable and did not bear interest; (2) due as costs taxable against an involuntary bankrupt who was at the time of the filing of the petition against him plaintiff in a cause of action which would pass to the trustee and which the trustee declines to prosecute after notice; (3) founded upon a claim for taxable costs incurred in good faith by a creditor before the filing of the petition in an action to recover a provable debt; (4) founded upon an open account, or upon a contract express or implied; and (5) founded upon provable debts reduced to judgments after the filing of the petition and before the consideration of the bankrupt's application for a discharge, less costs incurred and interests accrued after the filing of the petition and up to the time of the entry of such judgments.

"b. Unliquidated claims against the bankrupt may, pursuant to application to the court, be liquidated in such manner as it shall direct, and may thereafter be proved and allowed against his estate.

"SEC. 64. Debts which have priority.—a. The court shall order the trustee to pay all taxes legally due and owing by the bankrupt to the United States, State, county, district, or municipality in advance of the payment of dividends to creditors, and upon filing the receipts of the proper public officers for such payment he shall be credited with the amount thereof, and in case any question arises as to the amount or legality of any such tax the same shall be heard and determined by the court.

"b. The debts to have priority, except as herein provided, and to be paid in full out of bankrupt estates, and the order of payment shall be (1) the actual and necessary cost of preserving the estate subsequent to filing the petition; (2) the filing fees paid by creditors in involuntary cases; (3) the cost of administration, including the fees and mileage payable to witnesses as now or hereafter provided by the laws of the United States, and one reasonable attorney's fee, for the professional services actually rendered, irrespective of the number of attorneys employed to the petitioning creditors in involuntary cases, to the bankrupt in involuntary cases while performing the duties herein prescribed, and to the bankrupt in voluntary cases, as the court may allow; (4) wages due to workmen, clerks, or servants which have been earned within three months before the date of the commencement of proceedings, not to exceed \$300 to each claimant; and (5) debts owing to any person who by the laws of the State or the United States is entitled to priority.

"c. In the event of the confirmation of a composition being set aside, or a discharge revoked, the property acquired by the bankrupt in addition to his estate at the time the composition was confirmed or the adjudication was made shall be applied to the payment in full of the claims of creditors for property sold to him on credit, in good faith, while such composition or discharge was in force, and the residue, if any, shall be applied to the payment of the debts which were owing at the time of the adjudication.

"SEC. 65. Declaration and payment of dividends.—a. Dividends of an equal per cent. shall be declared and paid on all allowed claims, except such as have priority or are secured.

"b. The first dividend shall be declared within thirty days after the adjudication, if the money of

the estate in excess of the amount necessary to pay the debts which have priority and such claims as have not been, but probably will be, allowed equals 5 per cent. or more of such allowed claims. Dividends subsequent to the first shall be declared upon like terms as the first and as often as the amount shall equal 10 per cent. or more and upon closing the estate. Dividends may be declared oftener and in smaller proportions if the judge shall so order.

"c. The rights of creditors who have received dividends, or in whose favor final dividends have been declared, shall not be affected by the proof and allowance of claims subsequent to the date of such payment or declarations of dividends; but the creditors proving and securing the allowance of such claims shall be paid dividends equal in amount to those already received by the other creditors if the estate equals so much before such other creditors are paid any further dividends.

"d. Whenever a person shall have been adjudged a bankrupt by a court without the United States and also by a court of bankruptcy, creditors residing within the United States shall first be paid a dividend equal to that received in the court without the United States by other creditors before creditors who have received a dividend in such court shall be paid any amounts.

"e. A claimant shall not be entitled to collect from a bankrupt estate any greater amount than shall accrue pursuant to the provisions of this act.

"Sec. 66. Unclaimed dividends.—a. Dividends which remain unclaimed for six months after the final dividend has been declared shall be paid by the trustee into court.

"b. Dividends remaining unclaimed for one year shall, under the direction of the court, be distributed to the creditors whose claims have been allowed but not paid in full, and after such claims have been paid in full the balance shall be paid to the bankrupt: *Provided*, That in case unclaimed dividends belong to minors such minors may have one year after arriving at majority to claim such dividends.

"Sec. 67. Liens.—a. Claims which for want of record or for other reasons would not have been valid liens as against the claims of the creditors of the bankrupt shall not be liens against his estate.

"b. Whenever a creditor is prevented from enforcing his rights as against a lien created, or attempted to be created, by his debtor, who afterward becomes a bankrupt, the trustees of the estate of such bankrupt shall be subrogated to and may enforce such rights of such creditor for the benefit of the estate.

"c. A lien created by or obtained in or pursuant to any suit or proceeding at law or in equity, including an attachment upon mesne process or a judgment by confession, which was begun against a person within four months before the filing of a petition in bankruptcy by or against such person shall be dissolved by the adjudication of such person to be a bankrupt if (1) it appears that said lien was obtained and permitted while the defendant was insolvent and that its existence and enforcement will work a preference, or (2) the party or parties to be benefited thereby had reasonable cause to believe the defendant was insolvent and in contemplation of bankruptcy, or (3) that such lien was sought and permitted in fraud of the provisions of this act; or if the dissolution of such lien would militate against the best interests of the estate of such person the same shall not be dissolved, but the trustee of the estate of such person, for the benefit of the estate, shall be subrogated to the rights of the holder of such lien and empowered to perfect and enforce the same in his name as trustee with like force and effect as such holder might have done had not bankruptcy proceedings intervened.

"d. Liens given or accepted in good faith and not in contemplation of or in fraud upon this act, and for a present consideration, which have been recorded according to law, if record thereof was necessary in order to impart notice, shall not be affected by this act.

"e. That all conveyances, transfers, assignments, or incumbrances of his property, or any part thereof, made or given by a person adjudged a bankrupt under the provisions of this act subsequent to the passage of this act and within four months prior to the filing of the petition, with the intent and purpose on his part to hinder, delay, or defraud his creditors, or any of them, shall be null and void as against the creditors of such debtor, except as to purchasers in good faith and for a present fair consideration; and all property of the debtor conveyed, transferred, assigned, or encumbered as aforesaid shall, if he be adjudged a bankrupt, and the same is not exempt from execution and liability for debts by the law of his domicile, be and remain a part of the assets and estate of the bankrupt and shall pass to his said trustee, whose duty it shall be to recover and reclaim the same by legal proceedings or otherwise for the benefit of the creditors. And all conveyances, transfers, or encumbrances of his property made by a debtor at any time within four months prior to the filing of the petition against him, and while insolvent, which are held null and void as against the creditors of such debtor by the laws of the State, Territory, or District in which such property is situate, shall be deemed null and void under this act against the creditors of such debtor if he be adjudged a bankrupt, and such property shall pass to the assignee and be by him reclaimed and recovered for the benefit of the creditors of the bankrupt.

"f. That all levies, judgments, attachments, or other liens obtained through legal proceedings against a person who is insolvent, at any time within four months prior to the filing of a petition in bankruptcy against him, shall be deemed null and void in case he is adjudged a bankrupt; and the property affected by the levy, judgment, attachment, or the other lien shall be deemed wholly discharged and released from the same and shall pass to the trustee as a part of the estate of the bankrupt, unless the court shall on due notice order that the right under such levy, judgment, attachment, or other lien shall be preserved for the benefit of the estate; and thereupon the same may pass to and shall be preserved by the trustee for the benefit of the estate as aforesaid. And the court may order such conveyance as shall be necessary to carry the purposes of this section into effect: *Provided*, That nothing herein contained shall have the effect to destroy or impair the title obtained by such levy, judgment, attachment, or other lien of a *bona fide* purchaser for value who shall have acquired the same without notice or reasonable cause for inquiry.

"Sec. 68. Sets off and counter-claims.—a. In all cases of mutual debts or mutual credits between the estate of a bankrupt and a creditor the account shall be stated and one debt shall be set off against the other, and the balance only shall be allowed or paid.

"b. A set-off or counter-claim shall not be allowed in favor of any debtor of the bankrupt which (1) is not provable against the estate; or (2) was purchased by or transferred to him after the filing of the petition, or within four months before such filing, with a view to such use and with knowledge or notice that such bankrupt was insolvent, or had committed an act of bankruptcy.

"Sec. 69. Possession of property.—a. A judge may, upon satisfactory proof, by affidavit, that a bankrupt against whom an involuntary petition has been

filed and is pending has committed an act of bankruptcy, or has neglected, or is neglecting, or is about to so neglect his property that it has thereby deteriorated, or is thereby deteriorating, or is about thereby to deteriorate in value, issue a warrant to the marshal to seize and hold it subject to further orders. Before such warrant is issued the petitioners applying therefor shall enter into a bond in such an amount as the judge shall fix, with such sureties as he shall approve, conditioned to indemnify such bankrupt for such damages as he shall sustain in the event such seizure shall prove to have been wrongfully obtained. Such property shall be released if such bankrupt shall give bond in a sum which shall be fixed by the judge, with such sureties as he shall approve, conditioned to turn over such property, or pay the value thereof in money to the trustee, in the event he is adjudged a bankrupt pursuant to such petition.

"SEC. 70. Title to property.—*a.* The trustee of the estate of a bankrupt, upon his appointment and qualification, and his successor or successors, if he shall have one or more, upon his or their appointment and qualification, shall in turn be vested by operation of law with the title of the bankrupt, as of the date he was adjudged a bankrupt, except in so far as it is to property which is exempt, to all (1) documents relating to his property; (2) interests in patents, patent rights, copyrights, and trade-marks; (3) powers which he might have exercised for his own benefit, but not those which he might have exercised for some other person; (4) property transferred by him in fraud of his creditors; (5) property which prior to the filing of the petition he could by any means have transferred or which might have been levied upon and sold under judicial processes against him: *Provided*, That when any bankrupt shall have any insurance policy which has a cash surrender value payable to himself, his estate, or personal representatives, he may within thirty days after the cash surrender value has been ascertained and stated to the trustee by the company issuing the same, pay or secure to the trustee the sum so ascertained and stated, and continue to hold, own, and carry such policy free from the claims of the creditors participating in the distribution of his estate under the bankruptcy proceedings, otherwise the policy shall pass to the trustee as assets; and (6) rights of action arising upon contracts or from the unlawful taking or detention of, or injury to, his property.

"*b.* All real and personal property belonging to bankrupt estates shall be appraised by three disinterested appraisers; they shall be appointed by, and report to the court. Real and personal property shall, when practicable, be sold subject to the approval of the court; it shall not be sold otherwise than subject to the approval of the court for less than 75 per cent. of its appraised value.

"*c.* The title to property of a bankrupt estate which has been sold, as herein provided, shall be conveyed to the purchaser by the trustee.

"*d.* Whenever a composition shall be set aside, or discharge revoked, the trustee shall upon his appointment and qualification, be vested as herein provided with the title to all of the property of the bankrupt as of the date of the final decree setting aside the composition or revoking the discharge.

"*e.* The trustee may avoid any transfer by the bankrupt of his property which any creditor of such bankrupt might have avoided, and may recover the property so transferred, or its value, from the person to whom it was transferred, unless he was a *bona fide* holder for value prior to the date of the adjudication. Such property may be recovered or its value collected from whoever may have received it, except a *bona fide* holder for value.

"*f.* Upon the confirmation of a composition offered by a bankrupt, the title to his property shall thereupon revert in him.

"THE TIME WHEN THIS ACT SHALL GO INTO EFFECT.

"*a.* This act shall go into full force and effect upon its passage: *Provided, however*, That no petition for voluntary bankruptcy shall be filed within one month of the passage thereof, and no petition for involuntary bankruptcy shall be filed within four months of the passage thereof.

"*b.* Proceedings commenced under State insolvency laws before the passage of this act shall not be affected by it."

Carriers and their Employees.—The Congress passed, and the President approved, June 1, 1898, the following act in regard to arbitration in cases of controversy among those engaged in interstate commerce:

"*Be it enacted, etc.*, That the provisions of this act shall apply to any common carrier or carriers and their officers, agents, and employees, except masters of vessels and seamen, as defined in section 4612, Revised Statutes of the United States, engaged in the transportation of passengers or property wholly by railroad, or partly by railroad and partly by water, for a continuous carriage or shipment, from one State or Territory of the United States, or the District of Columbia, to any other State or Territory of the United States, or the District of Columbia, or from any place in the United States to an adjacent foreign country, or from any place in the United States through a foreign country to any other place in the United States.

"The term 'railroad' as used in this act shall include all bridges and ferries used or operated in connection with any railroad, and also all the road in use by any corporation operating a railroad, whether owned or operated under a contract, agreement, or lease; and the term 'transportation' shall include all instrumentalities or shipment or carriage.

"The term 'employees' as used in this act shall include all persons actually engaged in any capacity in train operation or train service of any description, and notwithstanding that the cars upon or in which they are employed may be held and operated by the carrier under lease or other contract: *Provided, however*, That this act shall not be held to apply to employees of street railroads and shall apply only to employees engaged in railroad train service. In every such case the carrier shall be responsible for the acts and defaults of such employees in the same manner and to the same extent as if said cars were owned by it, and said employees directly employed by it, and any provisions to the contrary of any such lease or other contract shall be binding only as between the parties thereto and shall not affect the obligations of said carrier either to the public or to the private parties concerned.

"SEC. 2. That whenever a controversy concerning wages, hours of labor, or conditions of employment shall arise between a carrier subject to this act and the employees of such carrier, seriously interrupting or threatening to interrupt the business of said carrier, the Chairman of the Interstate Commerce Commission and the Commissioner of Labor shall, upon the request of either party to the controversy, with all practicable expedition, put themselves in communication with the parties to such controversy, and shall use their best efforts, by mediation and conciliation, to amicably settle the same; and if such efforts shall be unsuccessful, shall at once endeavor to bring about an arbitration of said controversy in accordance with the provisions of this act.

"SEC. 3. That whenever a controversy shall arise

between a carrier subject to this act and the employees of such carrier which can not be settled by mediation and conciliation in the manner provided in the preceding section, said controversy may be submitted to the arbitration of a board of three persons, who shall be chosen in the manner following: One shall be named by the carrier or employer directly interested; the other shall be named by the labor organization to which the employees directly interested belong, or, if they belong to more than one, by that one of them which specially represents employees of the same grade and class and engaged in services of the same nature as said employees so directly interested: *Provided, however,* That when a controversy involves and affects the interests of two or more classes and grades of employees belonging to different labor organizations, such arbitrator shall be agreed upon and designated by the concurrent action of all such labor organizations; and in all cases where the majority of such employees are not members of any labor organization said employees may by a majority vote select a committee of their own number, which committee shall have the right to select the arbitrator on behalf of their employees.

The two thus chosen shall select the third commissioner of arbitration; but, in the event of their failure to name such arbitrator within five days after their first meeting, the third arbitrator shall be named by the commissioners named in the preceding section. A majority of said arbitrators shall be competent to make a valid and binding award under the provisions hereof. The submission shall be in writing, shall be signed by the employer and by the labor organization representing the employees, shall specify the time and place of meeting of said board of arbitration, shall state the questions to be decided, and shall contain appropriate provisions by which the respective parties shall stipulate, as follows:

"First. That the board of arbitration shall commence their hearings within ten days from the date of the appointment of the third arbitrator, and shall find and file their award, as provided in this section, within thirty days from the date of the appointment of the third arbitrator; and that pending the arbitration the status existing immediately prior to the dispute shall not be changed: *Provided,* That no employee shall be compelled to render personal service without his consent.

"Second. That the award and the papers and proceedings, including the testimony relating thereto, certify under the hands of the arbitrators, and which shall have the force and effect of a bill of exceptions, shall be first in the clerk's office of the circuit court of the United States for the district wherein the controversy arises or the arbitration is entered into, and shall be final and conclusive upon both parties, unless set aside for error of law apparent on the record.

"Third. That the respective parties to the award will each faithfully execute the same, and that the same may be specifically enforced in equity so far as the powers of a court of equity permit: *Provided,* That no injunction or other legal process shall be issued which shall compel the performance by any laborer against his will of a contract for personal labor or service.

"Fourth. That employees dissatisfied with the award shall not by reason of such dissatisfaction quit the service of the employer before the expiration of three months from and after the making of such award without giving thirty days' notice in writing of their intention so to quit. Nor shall the employer dissatisfied with such award dismiss any employee or employees on account of such dissatisfaction before the expiration of three months from

and after the making of such award without giving thirty days' notice in writing of his intention so to discharge.

"Fifth. That said award shall continue in force as between the parties thereto for the period of one year after the same shall go into practical operation, and no new arbitration upon the same subject between the same employer and the same class of employees shall be had until the expiration of said one year if the award is not set aside as provided in section 4. That as to individual employees not belonging to the labor organization or organizations which shall enter into the arbitration, the said arbitration and the award made therein shall not be binding unless the said individual employees shall give assent in writing to become parties to said arbitration.

"Sec. 4. That the award being filed in the clerk's office of a circuit court of the United States, as hereinbefore provided, shall go into practical operation, and judgment shall be entered thereon accordingly at the expiration of ten days from such filing, unless within such ten days either party shall file exceptions thereto for matter of law apparent upon the record, in which case said award shall go into practical operation and judgment be entered accordingly when such exceptions shall have been finally disposed of either by said circuit court or on appeal therefrom.

"At the expiration of ten days from the decision of the circuit court upon exceptions taken to said award, as aforesaid, judgment shall be entered in accordance with said decision unless during said ten days either party shall appeal therefrom to the circuit court of appeals. In such case only such portion of the record shall be transmitted to the appellate court as is necessary to the proper understanding and considerations of the questions of law presented by said exceptions and to be decided.

"The determination of said circuit court of appeals upon said questions shall be final, and being certified by the clerk thereof to said circuit court, judgment pursuant thereto shall thereupon be entered by said circuit court.

"If exceptions to an award are finally sustained, judgment shall be entered setting aside the award. But in such case the parties may agree upon a judgment to be entered disposing of the subject-matter of the controversy, which judgment when entered shall have the same force and effect as judgment entered upon an award.

"Sec. 5. That for the purposes of this act the arbitrators herein provided for, or either of them, shall have power to administer oaths and affirmations, sign subpoenas, require the attendance and testimony of witnesses, and the production of such books, papers, contracts, agreements, and documents material to a just determination of the matters under investigation as may be ordered by the court; and may invoke the aid of the United States courts to compel witnesses to attend and testify and to produce such books, papers, contracts, agreements, and documents to the same extent and under the same conditions and penalties as is provided for in the act to regulate commerce approved Feb. 4, 1887, and the amendments thereto.

"Sec. 6. That every agreement of arbitration under this act shall be acknowledged by the parties before a notary public or clerk of a district or circuit court of the United States, and when so acknowledged a copy of the same shall be transmitted to the Chairman of the Interstate Commerce Commission, who shall file the same in the office of said commission.

"Any agreement of arbitration which shall be entered into conforming to this act, except that it shall be executed by employees individually instead

of by a labor organization as their representative, shall, when duly acknowledged as herein provided, be transmitted to the Chairman of the Interstate Commerce Commission, who shall cause a notice in writing to be served upon the arbitrators, fixing a time and place for a meeting of said board, which shall be within fifteen days from the execution of said agreement of arbitration: *Provided, however,* That the said Chairman of the Interstate Commerce Commission shall decline to call a meeting of arbitrators under such agreement unless it be shown to his satisfaction that the employees signing the submission represent or include a majority of all employees in the service of the same employer and of the same grade and class, and that an award pursuant to said submission can justly be regarded as binding upon all such employees.

"Sec. 7. That during the pendency of arbitration under this act it shall not be lawful for the employer, party to such arbitration, to discharge the employees, parties thereto, except for inefficiency, violation of law, or neglect of duty; nor for the organization representing such employees to order, nor for the employees to unite in, aid, or abet, strikes against said employer; nor, during a period of three months after an award under such an arbitration, for such employer to discharge any such employees, except for the causes aforesaid, without giving thirty days' written notice of an intent so to discharge; nor for any such employees, during a like period, to quit the service of said employer without just cause, without giving to said employer thirty days' written notice of an intent so to do; nor for such organization representing such employees to order, counsel, or advise otherwise. Any violation of this section shall subject the offending party to liability for damages: *Provided,* That nothing herein contained shall be construed to prevent any employer, party to such arbitration, from reducing the number of its or his employees whenever in its or his judgment business necessities require such reduction.

"Sec. 8. That in every incorporation under the provisions of chapter 567 of the United States Statutes of 1885 and 1886 it must be provided in the articles of incorporation and in the constitution, rules, and by-laws that a member shall cease to be such by participating in or by instigating force or violence against persons or property during strikes, lockouts, or boycotts, or by seeking to prevent others from working through violence, threats, or intimidations. Members of such incorporations shall not be personally liable for the acts, debts, or obligations of the corporations, nor shall such corporations be liable for the acts of members or others in violation of law; and such corporations may appear by designated representatives before the board created by this act, or in any suits or proceedings for or against such corporations or their members in any of the Federal courts.

"Sec. 9. That whenever receivers appointed by Federal courts are in the possession and control of railroads, the employees upon such railroads shall have the right to be heard in such courts upon all questions affecting the terms and conditions of their employment, through the officers and representatives of their associations, whether incorporated or unincorporated, and no reduction of wages shall be made by such receivers without the authority of the court thereof upon notice to such employees, said notice to be not less than twenty days before the hearing upon the receivers' petition or application, and to be posted upon all customary bulletin boards along or upon the railway operated by such receiver or receivers.

"Sec. 10. That any employer subject to the provisions of this act and any officer, agent, or receiver

of such employer who shall require any employee, or any person seeking employment, as a condition of such employment, to enter into an agreement, either written or verbal, not to become or remain a member of any labor corporation, association, or organization; or shall threaten any employee with loss of employment, or shall unjustly discriminate against any employee because of his membership in such a labor corporation, association, or organization; or who shall require any employee, or any person seeking employment, as a condition of such employment, to enter into a contract whereby such employee or applicant for employment shall agree to contribute to any fund for charitable, social, or beneficial purposes; to release such employer from legal liability for any personal injury by reason of any benefit received from such fund beyond the proportion of the benefit arising from the employer's contribution to such fund; or who shall, after having discharged an employee, attempt or conspire to prevent such employee from obtaining employment, or who shall, after the quitting of an employee, attempt or conspire to prevent such employee from obtaining employment, is hereby declared to be guilty of a misdemeanor, and, upon conviction thereof in any court of the United States of competent jurisdiction in the district in which such offense was committed, shall be punished for each offense by a fine of not less than \$100 and not more than \$1,000.

"Sec. 11. That each member of said board of arbitration shall receive a compensation of \$10 per day for the time he is actually employed, and his traveling and other necessary expenses; and a sum of money sufficient to pay the same, together with the traveling and other necessary and proper expenses of any conciliation or arbitration had hereunder, not to exceed \$10,000 in any one year, to be approved by the Chairman of the Interstate Commerce Commission and audited by the proper accounting officers of the Treasury, is hereby appropriated for the fiscal years ending June 30, 1898, and June 30, 1899, out of any money in the Treasury not otherwise appropriated.

"Sec. 12. That the act to create boards of arbitration or commission for settling controversies and differences between railroad corporations and other common carriers engaged in interstate or Territorial transportation of property or persons and their employees, approved October 1, 1888, is hereby repealed."

Postal Cards.—Congress passed, and the President approved, the following act in regard to postal cards:

"*Be it enacted, etc.,* That from and after the 1st day of July, 1898, it shall be lawful to transmit by mail, at the postage rate of a cent apiece, payable by stamps to be affixed by the sender, and under such regulations as the Postmaster-General may prescribe, written messages on private mailing cards, such cards to be sent openly in the mails, to be no larger than the size fixed by the convention of the Universal Postal Union, and to be approximately of the same form, quality, and weight as the stamped postal card now in general use in the United States."

Miscellaneous.—This was distinctly a working session of Congress, and many measures were passed, besides private bills, among them the following:

An act, of great importance, for the protection of the people of Indian Territory and other purposes.

An act to settle the Bering Sea award, appropriating \$473,151.26 to enable the President to pay to the Government of her Britannic Majesty the amount awarded by the commissioners appointed pursuant to the stipulations of the convention of Feb. 8, 1896, between the United States and Great

Britain, providing for the settlement of the claims presented by the latter against the former in virtue of the convention of Feb. 29, 1892.

A joint resolution tendering the thanks of Congress to Commodore George Dewey, U. S. N., and to the officers and men of the squadron under his command.

A joint resolution authorizing the Secretary of the Navy to present a sword of honor to Commodore George Dewey, and to cause to be struck bronze medals commemorating the battle of Manila Bay, and to distribute such medals to the officers and men of the ships of the Asiatic squadron of the United States.

A joint resolution providing for a survey and report upon the practicability of securing a navigable channel of adequate width and of 85 feet depth at mean low water of the Gulf of Mexico throughout southwest pass of the Mississippi river; and various joint resolutions in regard to surveys and estimates of public improvements at different points.

An act concerning sailing vessels of over 700 tons and for other purposes.

An act to abolish the distinction between offered and unoffered land.

An act concerning attorneys and marshals of the United States.

An act for the appointment of a commission to make allotments of lands in severalty to Indians upon the Uintah Indian Reservation in Utah and to obtain the cession to the United States of all lands within such reservation not so allotted.

An act to amend section 4440 of the Revised Statutes, authorizing the licensing of mates on river and ocean steamers.

An act to amend the act to provide times and places for holding terms of the United States courts in the States of Idaho and Wyoming.

An act to provide for the disposition of abandoned imported merchandise.

An act to establish an assay office at Seattle.

An act to amend an act to prohibit the passage of local or special laws in Territories.

An act to ratify the agreement between the Dawes Commission and the Seminole nation of Indians.

An act to provide a life-saving station on the westerly side of the harbor of Gloucester, Mass.

An act for revising and perfecting the classification of letters patent and printed publications of the Patent Office.

To designate Gladstone, Mich., as a subport of entry.

An act giving the assent of Congress to a change of the compact entered into between the United States and the State of Arkansas, on her admission to the Union.

An act to locate permanently the capital of the Territory of New Mexico.

An act authorizing the appointment of a non-partisan commission to collate information and to consider and recommend legislation to meet the problems presented by labor, agriculture, and capital.

An act to confer jurisdiction on circuit courts in certain cases.

An act to confirm certain cash entries of the public lands.

An act relating to leases on the Hot Springs Reservation.

An act for the relief of the book agents of the Methodist Episcopal Church, South.

An act to repeal in part and to limit section 3480 of the Revised Statutes.

An act to amend section 2284 of the Revised Statutes.

An act to authorize the establishment of a life-saving station at or near Charlevoix, Mich.

An act to amend sections 1 and 2 of the act of March 3, 1887, 24 Statutes at Large, chapter 359.

An act extending the homestead laws and providing for right of way for railroads in the District of Alaska.

An act authorizing the Supreme Lodge of the Knights of Pythias to erect and maintain a sanitarium and bath house on the Government reservation at the city of Hot Springs, Ark.

An act for the removal of cases from the courts of Texas to the courts of the United States in Texas.

An act to make certain grants of land in the Territory of New Mexico.

An act granting additional powers to railroad companies created by laws of the United States and operating lines in Indian Territory.

An act for the relief of sufferers by the destruction of the United States steamer "Maine" in the harbor of Havana, Cuba.

An act granting certain lands to the city of Santa Barbara, Cal.

An act to increase the number of surgeons in the United States army.

An act to amend the act to establish a Court of Private Land Claims.

Acts in relation to bridges: Over the Black river in Arkansas, by the White and Black River Railway; over the Snake river between the States of Washington and Idaho; across the Loggy bayou in Louisiana; across Portage lake, Michigan; across the Missouri river at Yankton; over the Black river at Pocahontas, Ark.; across the Mississippi at Prairie du Chien, Wis.; across the Alabama river near Montgomery, Ala.; across Bayou Bartholomew, Arkansas; across the Missouri river at St. Charles, Mo.; across the Arkansas river near Webber's Falls, Indian Territory; across the Yalabusha river between Lefflore and Carroll Counties, Mississippi; over the Tombigbee river in the State of Mississippi; across the Niagara river; across the Choctawhatchee river at two points in Dale County, Alabama; across the St. Lawrence river; across the St. Francis river, Arkansas; across the Red river at or near Grand Ecore, La.; across the Monongahela river; across the Missouri river at Quindaro, Kan.; across St. Francis lake near Lake City, Ark.

Various railway acts: Granting to the Omaha Northern Railway Company the right to construct a railway across the Omaha and Winnebago Reservations in Nebraska; to the Muscogee Coal and Railroad Company the right to construct and operate a road through Oklahoma and Indian Territories; to Kettle River Valley Railway Company a right of way through Colville Indian Reservation in the State of Washington; to the Washington Improvement and Development Company a right of way through the same reservation; to the Cripple Creek Railway a right of way through the Pike's Peak Timber Reserve; to the Missouri, Kansas and Texas Railway Company the right to straighten the the channel of South Canadian river in Indian Territory; to the Chattanooga Rapid Transit Company the right to cross the Dry Valley road to the Chickamauga and Chattanooga National Park; to the Nebraska, Kansas and Gulf Railway Company the right to construct and operate a railway through the Indian Territory; to the Norwich and Worcester Railway Company the right of way through the naval station at New London, Conn.; to the St. Louis, Oklahoma and Southern Railway Company the right of way through Indian Territory; to the Santa Fé and Grand Cañon Railway Company the right of way through the Grand Cañon Forest Reserve in Arizona.

An act to amend an act to permit the use of the right of way through public lands for tramroads, canals, and reservoirs, and for other purposes.

Many special acts were passed for the government of the District of Columbia, and the number of special pension bills still remains one of the amazing features of this as of every congressional session.

Appropriations.—The heaviest part of the routine work of every session of Congress is the shaping and discussing of the appropriation bills, covering in their items every phase of governmental expenditure; but the second session of the Fifty-fifth Congress had an unusual task on its hands. The bills for 1898-'99 had to be prepared with the possibility of continued war expenditure in view and the probability of indefinite expenditures in the establishment of peace in newly acquired territory; and the appropriations for 1897-'98, which were inadequate to meet the necessities of the war, had to be supplemented by various deficiency bills. The work of Congress in this matter was fairly stated by Mr. Cannon, of Illinois, at the close of the session. He said: "The sum of \$892,527,991.16 has been appropriated at this session of Congress. This includes \$117,886,220 of permanent appropriations to meet sinking-fund requirements of and interest on the public debt, and for other objects, and \$361,788,095.11 to meet expenditures of the war with Spain.

"Deducting the last two from the sum first mentioned, there remains \$412,903,676.05, representing the appropriations made at the present session to meet all ordinary expenses of the Government; which sum is only \$4,246,816.75 more than was appropriated at the last session of the last Congress for the same purposes (including the appropriations made during the recent extra session), which apparent excess is almost doubly offset by the increased appropriation of \$8,070,872.46 for the payment of pensions on account of the fiscal year 1898, provided for in a deficiency act at this session.

"No river and harbor bill has been passed at this session; but the sundry civil act carries \$14,081,613.56 to meet contracts authorized by previous Congresses for river and harbor works. No laws authorizing the construction of public buildings in any of the cities throughout the country have been enacted, and otherwise the legislation authorizing expenditures and appropriations has been confined to the actual necessities of the Government, and to meet all demands incident to the existing war.

"In addition to the appropriations made specifically for expenses of the conduct of the war since its inception and for the first six months of the fiscal year beginning July 1, 1898, contracts have been authorized on the naval appropriation act for new war vessels and for their armament, for which Congress will be called upon in the future to appropriate to an amount estimated at \$19,216,156.

"The appropriations made during the second session of the Fifty-fifth Congress to meet expenses incident to the war with Spain were as follow: For the national defense, act March 9, 1898, \$50,117,000; army and navy deficiencies, act May 4, 1898, \$34,625,725.71; naval appropriation act, May 4, 1898—amount of increase over preceding naval appropriation act, \$23,095,549.49; fortification appropriation act, May 7, 1898—amount of increase over act as passed by House, \$5,232,582; naval auxiliary act, May 26, 1898, \$3,000,000; additional clerical force, War Department, Auditors' offices, etc., act May 31, 1898, \$227,976.45; Life-Saving Service, act June 7, 1898, \$70,000; army and navy deficiencies, act June 8, 1898, \$18,015,000; appropriations in act to provide ways and means to meet war expenditures, June 13, 1898, \$600,000; army, navy, and other war expenses for six months, beginning July 1, 1898, in general deficiency act, \$226,604,261.46; expenses of bringing home remains of soldiers, \$200,000; total, \$361,788,095.11."

His speech contained an elaborate table giving the history of the various appropriation bills; but it will be enough to select the separate measures and the amount provided at this session for 1898-'99 and provided to meet deficiencies for 1897-'98: Agriculture, \$3,509,202; army, \$23,192,892; diplomatic and consular, \$1,752,208.76; District of Columbia, \$6,425,880.07; fortification, \$9,377,494; Indian, \$7,660,814.90; legislative, etc., \$21,625,846.65; Military Academy, \$458,689.23; navy, \$56,098,783.68; pension, \$141,233,830; post office \$99,222,300.75; sundry civil, \$48,489,217.26; total, \$419,047,159.30; deficiency, 1898, Congress, etc., \$210,000; urgent deficiency, 1898, \$1,928,779.33; deficiency, United States courts, public printing, etc., \$800,000; urgent deficiency, national defense, etc., \$50,183,000; deficiency, army, fortifications, navy, etc., \$35,720,945.41; deficiency, pensions, etc., \$8,498,431.91; urgent deficiency, military and naval establishments, \$18,015,000; deficiency, 1898, and prior years, \$234,288,455.21; total, \$768,691,771.16; miscellaneous, \$6,000,000; total, regular annual appropriations, \$774,691,771.16; permanent annual appropriations, \$117,886,220; grand total, regular and permanent annual appropriations, \$892,527,991.16.

CONNECTICUT, a New England State, one of the original thirteen; ratified the national Constitution Jan. 9, 1788; area, 4,900 square miles. The population, according to each decennial census, was 237,946 in 1790; 251,002 in 1800; 261,942 in 1810; 275,148 in 1820; 297,675 in 1830; 309,978 in 1840; 370,792 in 1850; 460,147 in 1860; 537,454 in 1870; 622,700 in 1880; and 746,258 in 1890. Capital, Hartford.



GEORGE E. LOUNSBURY, GOVERNOR OF CONNECTICUT.

Government.—The following were the State officers during the year: Governor, Lorrin A. Cooke; Lieutenant Governor, James D. Dewell; Secretary of State, Charles Phelps; Treasurer, Charles W. Grosvenor; Comptroller, Benjamin P. Mead; Adjutant General, George Haven; Insurance Commissioner, F. A. Betts—all Republicans; Supreme Court of Errors—Chief Justice, Charles B. Andrews, Republican; Associate Justices, David Torrance, Republican; Augustus H. Fenn, Democrat; Simeon E. Baldwin, Democrat; and William Hamersley, Democrat; Clerk, C. W. Johnson.

Finances.—The State Treasurer reported that during the fiscal year ended Sept. 30, 1898, the financial condition had materially improved. For the first time since 1892 the receipts exceeded the expenses, the excess being \$340,863.64, to be further increased to more than \$460,000 by the receipt of \$120,000 from the United States for expenses incurred by reason of the Spanish war, this sum be-

ing arrived at without imposing the State tax on the towns. The Treasurer called attention to the fact that no provision had been made to pay the State bonds coming due Jan. 1, 1893, at which time \$1,500,000 will be needed for the redemption of the 3½ per cents. A large part, if not the entire issue, of these bonds must be paid from the surplus revenue to be received previous to their maturity.

The report shows the following transactions: Civil list account, balance on hand Oct. 1, 1897, \$133,027.50; revenue receipts from all sources during the year, \$2,612,385.15; total, \$2,735,412.55. Specific receipts: Interest of school fund, transferred, \$122,427.91; principal of Agricultural College fund (special), transferred, \$224.60; avails of courts, \$35,220.44; commissioners of pharmacy, \$1,734.25; commissioners of shell fisheries, \$8,732.25; comptroller, statutes sold, \$121; corporate franchise tax, \$2,000; tax on express companies, \$9,711.02; fees from executive secretary, \$539.50; fees from secretary's office, \$1,971.52; Greenwich Loan, Trust, and Deposit Company, \$500; inheritance tax, \$133,037.37; receipts of insurance commissioners, \$76,659.81; interest account, \$26,954.92; tax on investments, \$87,177.19; itinerant vender's license fees, \$300; Meriden Trust and Safe Deposit Company, \$250; military commutation tax, \$154.04; miscellaneous receipts, \$17,376.52; tax on mutual fire insurance companies, \$10,671.42; tax on mutual life insurance companies, \$272,242.40; national aid to State homes for soldiers, \$39,200; non-residents' stock tax, \$159,148.32; tax on steam railroads, \$910,137.50; tax on street railroads, \$133,052.77; tax on rolling stock companies, \$152.05; salaries of the Bank Commissioners, \$6,175.43; salaries of the Railroad Commissioners, \$14,514.31; salary of the Building and Loan Commissioner, \$2,068.33; tax on savings banks, \$373.37; State Librarian, atlases and maps sold, \$32; tax on telegraph and telephone companies, \$12,527.40; total, \$2,612,385.15. The payments were as follow: Civil-list orders, \$1,810,354.87; registered orders, \$353,112.84; interest on State bonds, \$104,700; interest on Agricultural College fund in treasury, \$211.33; interest on town deposit fund in treasury, \$311.42; interest on principal of school fund in treasury, \$416.01; interest on interest of school fund in treasury, \$1,940.04; interest on loan to State, \$375; State bond (paid), \$100; total, \$2,271,521.51; balance in treasury to the credit of the civil list, Oct. 1, 1898, \$463,891.14. General and special accounts: Balance to credit of all accounts, Oct. 1, 1897, \$320,745.45; receipts from all sources for fiscal year ending Sept. 30, 1898, \$3,097,013.21; total, \$3,417,758.66; deduct payments for all purposes, \$2,737,068.72; balance to the credit of all accounts, Oct. 1, 1898, \$680,749.94. State debt: The funded debt of the State, Sept. 30, 1898, was \$3,240,100; less cash in the treasury to credit of civil list funds, \$463,891.14; total State debt, less civil list funds, \$2,776,208.86.

The Board of Equalization during 1898 added \$56,275,000 to the lists of the various towns in the effort to have all property listed at its actual value. The rate of tax on non-resident stockholders in certain corporations was increased by the last General Assembly from 1 per cent. to 1½ per cent. One company protested not only against paying the increased tax, but against the greater part of the tax formerly levied and collected, and suit was instituted to enforce collection.

In 1897 the General Assembly increased the tax on choses in action from 2 to 4 mills per annum on each dollar. The new rate showed a larger receipt from this source than in 1897 by more than \$10,000. The number of such choses presented for taxation was less than any year since 1893, and the

amount taxed was less than in any year, with two exceptions, since the law was enacted. This statement is considered important to those interested in new forms of taxation.

The tax on street railway companies shows an increase each year, and at each session of the General Assembly bills have been introduced intending to divert this tax to the towns where such railways are located, but such action has been thought undesirable, the difficulty of towns assessing and collecting this tax being an argument against such change. The taxes paid by steam and street railroads in 1897 gave an increase of \$46,066 over 1896.

Insurance.—The number of fire insurance companies doing business in the State increased from 118 in 1891 to 142 in 1898. A comparison with the 124 companies operating during 1896 shows an increase in assets of \$23,256,803.76, a decrease in liabilities of \$842,010.86, and an increase in surplus of \$24,098,814.62. The 117 stock companies had a surplus of \$87,835,182.36, an increase of \$23,933,921.56. The 23 mutual companies had a surplus of \$2,969,581.50, a gain of \$137,893.06 during the year. The assets of the 142 companies amounted to \$266,922,873.16; the liabilities, including reinsurance reserve, capital, scrip, and special funds, to \$176,118,109.80, and the surplus over all to \$90,804,763.86. The liability for reinsurance amounted to \$104,504,030.49, for unpaid losses to \$12,242,584.97, and for all other liability to \$5,140,618.84. The net amount of outstanding insurance was \$18,435,905,044, an increase of \$1,224,275,945 over 1897. Of the total risks by all companies in the State in 1897, \$327,788,489, the Connecticut companies wrote \$111,517,054, or about one third.

Building and Loan Associations.—The business of these associations was reported to have increased notably during 1897. The assets of the domestic associations were \$3,243,935.19, an increase over the preceding year of \$462,992.55. The assets of the foreign associations amounted to \$7,515,073, an increase of \$1,483,534.64. Mortgage loans of domestic associations increased \$221,371.50; real estate, \$102,073.87; cash, \$48,133.55; stock, bonds, and other securities, \$72,006.78. Mortgage loans of the foreign associations increased \$961,592.22; real estate, \$158,081.43; cash, \$101,132.72; stocks and bonds, etc., \$15,422.60. In the foreign associations installments paid and earnings credited showed an increase of \$306,101.20, and in single-payment shares of \$793,606.60. The total number of shares issued by domestic associations during the year was 22,443; withdrawn, 15,184. Total number of shares at end of the year by borrowing members, 12,708½, and by non-borrowing members 39,479. Number of shares issued by foreign associations during the year was 104,386½; withdrawn, 87,910½; total number of shares held at end of the year by borrowing members, 64,785; by non-borrowing members, 266,471. The rate per cent. of operating expenses to receipts of "nationals," as reported, was more than three times greater than in local associations.

Savings Banks.—The reports show a somewhat better financial condition of the small-deposit class. In Hartford the increase in the number of depositors having under \$1,000 was from 56,843 in 1896 to 58,920 in 1897, a gain of 2,077. In 1896 their deposits lying in four Hartford banks aggregated \$9,878,987.93, and in 1897 they rose to \$10,311,854.26. In 1896 the deposits under \$1,000 formed a trifle over 38½ per cent. of all the deposits in the banks, and in 1897 they had risen to 39 per cent.

Education.—The school enumeration of the State affords a basis upon which to estimate the present population. Taking the ratio of school children in 1890 to the known population in that

year as shown by the census, which was 4.62, and applying it to the enumeration for 1897, shows a population of about 851,000, which is a gain of 106,000 since 1890. Following is a summary by counties of the school enumeration of 1897: Hartford, 36,590; New Haven, 56,405; New London, 17,028; Fairfield, 38,620; Windham, 9,798; Litchfield, 12,581; Middlesex, 8,187; Tolland, 5,146; total, 184,355, an increase of 5,092 over the previous year. The report of the Board of Education shows that in 1897 the increase of school population was 2.6 per cent. The number of pupils on the registers had increased 1.7 per cent., and there was a rise of 4.2 per cent. in the average attendance—an increase made in spite of withdrawals to private schools. The number of different pupils on the registers had increased by the number of 2,436 to 143,921; the average attendance had risen to 104,064. For every 100 children on the registers the average attendance was 70.22, or 4.2 per cent. greater than in the former year.

There are 71 high schools in the State, with a registration of 6,672 pupils. The expense of these schools amounts to \$275,000.31, including \$241,514.84 for teachers' salaries. There are 158 private schools, in which are registered 27,352 pupils, the teachers numbering 828.

The securities constituting the capital of the school fund was reported to amount to \$2,007,080.97, as follows: Bonds and mortgages in Connecticut, \$783,392.63; in Ohio, \$850,578.60; in Indiana, \$17,100; real-estate mortgages, \$163,868.04; bank stock in eleven banks, \$167,147.61; cash in treasury, \$17,077.09.

Labor and Industries.—The report of the Labor Bureau shows that a canvass was made of the manufacturing establishments, and reports from 768 of these were received, by which it appears that the number of persons on the pay rolls in 1897 was 87,907, a decrease from the previous year, when the number was 88,934. Fifty-six hours a week was reported as being the average time of labor for all establishments. Wages paid in 1896, \$40,404,002; for the corresponding period in 1897, \$36,271,729, showing a decrease of 10.2 per cent. The proportion of business done of full capacity, as estimated by all the manufacturers reporting, shows the average to have been 74 per cent.

The earnings of 107 employees of American birth reporting to the bureau averaged \$13.82 per week per family; the annual cost of living (exclusive of interest, taxes, water rents, and repairs or house rent) was 67.8 per cent.; the expense for interest, taxes, rent, etc., 14.6 per cent., and the possible savings 17.6 per cent. of total annual earnings. Of the 93 employees of foreign birth reporting, the average weekly earnings per family was \$10.71; the annual cost of living of the whole number (exclusive of interest, taxes, water rents, etc.) was 69.6 per cent.; amount paid for interest, taxes, etc., 14.5 per cent.; and the possible savings 15.9 per cent. of earnings. Thus while the average weekly earnings per family were 22.5 per cent. less than that shown by reports from those of American birth, the possible savings of the family were 30 per cent. lower.

The silk-machine works in Stonington ran during the year on full time, with an increased force of employees, and, with the exception of one small order from Switzerland, all the machines made were for American manufacturers. A large plant was established in New Haven for the manufacture of "colophyte," a material, resembling cellulose, used in electrical work for insulating.

The capital invested in the dairy business was reported to exceed, in round numbers, \$10,000,000, and the yearly product was estimated at more than \$5,000,000.

Shad Culture.—The Fish and Game Commissioner advocates the planting of fish adults, or "fingerlings," instead of fry, as the latter are too readily devoured by their natural enemies. He says that under ordinary conditions the commissioners can meet any reasonable demand for shad, and that the problem of how best to stock the rivers with these fish is solved. "They can turn into the Connecticut river 6,000,000 to 8,000,000 shad, from 8 to 5 inches long, in October of each year. That these have a better chance for life than the infinitesimal shad fry, with a part of the egg-sac still unabsorbed, is a self-evident fact and with this number of such fish annually released, the fear that shad may be exterminated is groundless."

Horticulture.—The Fruit Committee of the American Pomological Society gave out a list of the fruits best adapted to the soil of the State, namely: plums, pears, apples, peaches, gooseberries, grapes, cherries, blackberries, and currants; though many other fruits can be grown. Several instances of second-crop strawberries ripening in September or later were reported.

Vital Statistics.—The total number of births reported for 1897 was 20,509, giving a birth rate of 23.2 to 1,000 population; total marriages reported, 6,358, a rate of 7.2 to 1,000; total deaths, 13,923, a rate of 15.6 to 1,000.

State Prison.—The Board of Charities reported that the marked increase in the number of inmates in the penal institutions of the State presented a strong argument for the establishment of a State reformatory. The directors and warden of the State Prison reported that the average prison population, far surpassing that of any previous year and exceeding that of 1896 by 27.5, was 432.5, adding: "But even this fat figure fails fully to represent the penal census of the State, for, owing to the limited cell room at the prison, convicts were detained at the ordinary jails. The growth of the institution during the past five years, following a long period during which the population was substantially stationary, has been constant and at times rapid. Such an increase, which has now developed a condition of congestion, involves new problems in prison finance and administration, and begets additional responsibilities of management." The report alludes to the 32 additional steel cells which have been built, and to a commodious insane ward, nearly completed. The grading system, under which convicts are divided into three classes, in accordance with their antecedents, disposition, and prison conduct, is said to mark an important departure in penal administration. After a year's test, the directors feel justified in affirming the unqualified success of the system. The parole legislation enacted by the General Assembly supplements the grading system. The law authorizes the Board of Pardons to release upon parole first-term convicts who have served at least half their full sentence, whose prison record suggests probable reformation, and for whom suitable employment has been obtained. Reference is made to the literary and debating society which has been organized among the first-grade convicts, to the establishment of a monthly prison paper, and to the increased number of sessions of the evening school in which the elementary branches are taught to a limited number of convicts. During the year (1897) 221 prisoners, of whom 9 were women, were admitted; discharged, 160; total confined in the course of the year, 606. The prison is lighted with electricity, each cell having an incandescent lamp.

Crime.—The homicides in 1897 were fewer by 1 than in the previous year—24. The report says: "Assuming that the population of the State last year was 850,000, the ratio of homicides per 100,000

was 2.82, or an average of 1 homicide to a little less than 40,000 inhabitants."

Highways.—The total amount paid by the State for work on highways was \$59,337.81, the commissioner retaining the balance of \$38,859.19 until the contracts were completed. The amount allotted for telfordizing and macadamizing was \$89,250, and for grading \$8,947, making a total of \$98,197.

Decisions.—One of the most important Supreme Court decisions during the year was in relation to the Travelers' Insurance Company, regarding the payment of taxes on stock held by non-resident stockholders. The decision was favorable to the State, entitling it to recover \$5,556.74.

Fast Day.—On March 22, 1898, Gov. Cooke issued the annual proclamation for Fast Day in the following words: "Following a custom as old as the State, and in harmony with our laws, I hereby designate and appoint Friday, the eighth day of April next, as a day of fasting and prayer. I recommend that the people of the State abstain from their various pursuits, and upon that day gather in their places of public worship and render to the Almighty God sincere and devout homage by confession and prayer, and especially that they do earnestly beseech him in the present crisis of our country to avert war if it may be consistent with humanity and national honor."

Political.—The election in November resulted in a victory for the Republicans, who elected their State ticket, 4 Congressmen, and sheriffs in all the counties, and retain control of both branches of the General Assembly. The State officers elected are: Governor, George E. Lounsbury; Lieutenant Governor, Lyman A. Mills; Secretary of State, Huber Clark; Treasurer, Charles S. Merrick; Comptroller, T. S. Grant; Attorney-General, Charles Phelps. Lounsbury received a plurality of 16,788, and a majority of 12,454. The Republican plurality in the Senate in 1899 will be 20; in the House, 108; on joint ballot, 128.

COREA. See KOREA.

COSTA RICA, a republic in Central America. The Congress is a single Chamber of 21 members elected by electoral colleges, whose members are chosen by the votes of all self-supporting citizens. The electoral period is four years for the House of Representatives, one half being renewed every two years, and also for the President of the republic. Rafael Iglesias was elected in November, 1897, for his second term, ending May 8, 1902. The Cabinet in the beginning of 1898 was composed as follows: Minister of Foreign Affairs, Worship, Education, Charities, and Justice and Minister of Finance, Ricardo Monteleagre; Minister of the Interior and Police and of Public Works, Dr. Juan J. Ulloa; Minister of War and Marine, Juan Bautista Quirós.

Area and Population.—The area of the republic is about 23,000 square miles, with a population estimated in 1897 at 268,000. The Government has made various concessions for colonizing purposes and grants land on easy terms to immigrant settlers, of whom an average of 1,000 come in annually. The number of marriages in 1897 was 1,763; of births, 13,012; of deaths, 9,925; excess of births, 3,087.

Finances.—The revenue for 1897 was 7,435,611 pesos; expenditure, 6,697,327 pesos. The public debt amounted in 1896 to £2,000,000, the sum on which the Government compromised with its creditors in 1888, with unpaid coupons from January, 1895. In March, 1897, a fresh arrangement was made, whereby interest on £525,000 of the capital was reduced to 3 per cent. and on £1,475,000 to 2½ per cent., and the defaulted interest was to be canceled by the payment of £31,562 at once and

£100,000 in 20 annual installments. The internal debt on March 31, 1897, was 1,116,784 pesos.

Commerce.—The domestic exports in 1895 were valued at 12,218,550 pesos, and in 1896 at 12,152,592 pesos. The value of the coffee exported in 1896 was 10,178,040 pesos; of bananas, 1,333,107 pesos. Hides and skins and cedar and cabinet and dye woods are the principal other exports.

Navigation.—There were 476 vessels, of 471,125 tons, entered at the ports of Limon and Punta Arenas during 1896, of which number 178, of 205,937 tons, were British, 77, of 96,925 tons, American, and 45, of 57,041 tons, German. The number cleared was 475, of 473,929 tons.

Communications.—Of the long-projected inter-oceanic railroad a section of 14 miles from Punta Arenas, on the Pacific coast, and one of 117 miles from Port Limon to Alajuela are in operation. Other lines are in contemplation. The telegraph lines have a length of 878 miles. In 1897 there were sent 382,116 messages, and through the post office 1,361,885 internal and 652,058 external letters, papers, etc.

Dispute with Nicaragua.—The old conflict over the San Juan river boundary became so acute in the spring of 1898 that all intercourse between the republics was suspended and commerce and industry in Costa Rica were paralyzed. The laborers on the coffee and banana plantations were drafted into the army. Merchants ceased importing goods. On March 20 the Costa Rican troops on the frontier near La Cruz advanced so threateningly that the Nicaraguan pickets fired upon them, killing a private and wounding the commander, Gen. Avila. The Costa Ricans returned the fire, killing 7 men. On March 21 the President placed an embargo on all passengers arriving from Nicaraguan ports. The national Constitution was suspended and the President given full power to act as he should see fit. Field guns and rifles were brought, with ammunition, from New York. The chronic difficulty between the republics was aggravated in the previous September by the action of the Nicaraguan Government in arresting Eduardo Beeche, the Costa Rican consul, on the charge of aiding the Nicaraguan revolutionists. Costa Rica demanded reparation for the arrest and began preparing for war, threatening to enforce with arms her claim to the disputed territory. Negotiations looking to a peaceful settlement of the difficulty were then begun by the Diet of the Greater Republic of Central America. After the skirmish on the frontier, when President Iglesias was going to the front with his staff they were resumed, and soon an understanding was reached between the Diet and Costa Rica, whereby the claims of Nicaragua against Costa Rica for alleged intervention in the revolution and the claims of Costa Rica for the imprisonment of her consul would be submitted to a special commission, while another commission would consider later the boundary dispute.

CRETE, an island in the Mediterranean forming an autonomous province of Turkey. It has an area of 3,326 square miles and an estimated population of 294,190.

The International Régime.—When the year 1898 opened the naval forces of the six great powers were in joint occupation of the seacoast towns, where the Turkish garrisons, which had been withdrawn from all other parts of the island, aided in maintaining order. The provisional Cretan Assembly, which had elected Dr. Sphakianaki, an intelligent and prudent patriot, as its president, had agreed to accept an autonomous constitution, but insisted on the Turkish troops evacuating the island. The Sultan had agreed to grant autonomous institutions on condition that his suzerainty

should be maintained. He promised to appoint a Christian Governor with the approval of the powers, urging, however, that a Turkish subject be selected for the post.

The Christian inhabitants of the cities, who formed the bulk of the population, were fugitives from their homes, living on the charity of their Hellenic sympathizers in the Greek islands and the towns of the mainland. The Cretan towns were full of refugee Mohammedans who had been driven from their farms, now devastated or occupied by Christian insurgents. Their olive groves and buildings were destroyed, their land was tilled by others, and the cattle that they had brought away with them were starving, being restricted to the herbage that grew within the narrow limits of the international cordon. Sometimes, with the connivance of the Turkish military, they drove their herds outside the limits, and then they usually came into conflict with the armed insurgents who surrounded the occupied zone. They occasionally broke through the lines to raid undefended villages and farms in the surrounding country, and they broke into the deserted houses of the Christian citizens to steal whatever articles they could use or sell. They slept miserably on the floors of the mosques and schoolhouses, and for the most part subsisted on the scanty doles that the Sultan originally, and afterward the European governments, gave to be distributed among them. The Christians were permitted to enter the towns only when they arrived by sea. The International Council of Admirals would not permit access by land until the Christians should allow the Moslems to visit their properties in the interior. Small parties of Moslems were conducted occasionally to their estates outside the military cordons by European troops, and similarly Christians were allowed to visit their houses in the towns under escort. The Christian insurgents had full possession of the rural districts, and, except when interrupted by the political agitation and frequent calls of their leaders to arms, tilled the soil and gathered the crops as well as could be expected amid the prevailing demoralization and anarchy. They lived on the fruits not only of their own lands, but of those of their Mohammedan neighbors, but suffered from the ruin that had been wrought in the civil conflict and from the lack of many things that are in ordinary times supplied from abroad, especially sulphur for dusting the vines to save them from the phylloxera.

The ambassadors at Constantinople formulated a scheme of autonomy modeled after the organic statute of Eastern Roumelia, the Sultan to retain political and military control and to keep a garrison in Crete. To this the Cretan Assembly vigorously objected, saying that it would leave Crete only a privileged province under the Sultan's sovereignty instead of creating a separate government under his suzerainty. The question of who was to carry autonomy into effect as Governor-General was of no less practical importance than that of what particular form of autonomy should be established. Numa Droz, a Swiss statesman, had been proposed, afterward Col. Schäffer, an officer of the Luxembourg army, and then Bozo Petrovich, a Montenegrin prince. Just before the opening of the year the Russian Government suggested Prince George of Greece. He was formally proposed later, and although he was willing to renounce his claims of succession to the Greek throne, and his candidature was supported by Great Britain, France, and Italy, the Porte strenuously protested against the choice as being only a preliminary to the annexation of the island to Greece, and was upheld by Austria-Hungary and Germany. The Germans, who were not

before represented in the force of occupation, sent the cruiser "Oldenburg," from which a detachment of sailors was landed at Canea on Jan. 7. The Cretan Assembly, which had called for the instantaneous withdrawal of the Turkish troops, declared that, if the powers considered the immediate and simultaneous evacuation impossible, it would not object to a gradual withdrawal, provided that the great powers guaranteed complete evacuation within a short specified period. The situation at Candia, where there were 30,000 starving Mohammedan refugees, became so serious that the admirals of the fleet determined to send detachments of all the international troops to re-enforce the English garrison, now reduced to about 600. The cordon, 20 miles long, was guarded by the 8,000 Turkish regulars, who were unable or unwilling to prevent occasional forays. Conditions improved, however, after a band of Bashibazouks that had sallied out to commit depredations was deported. The Turkish Governor of Candia, Chefki Bey, was replaced, at the request of the admirals, by Edhem Pasha. The Christian insurgents, who gathered in force round the outposts as a demonstration against the ambassador's plan of autonomy and in favor of the appointment of the Greek prince to be their ruler, frequently attacked the Turkish military cordon. The Assembly complained of the indifference or the impotence of the Europeans, who had not succeeded in preventing raids on the Christians or in securing for them free communication with the largest and richest town in the island. The Deputies gathered at Plakouves, in Akrotiri, on Feb. 1, and unanimously appealed to the powers to give them Prince George as Governor-General. A Turkish circular to the powers on Feb. 24 called attention to the miserable condition of the Mohammedan Cretans, who were absolutely at the mercy of the Christians, and urged the governments to terminate the evils by executing their own remedial scheme of autonomy, long before accepted by the Sultan. It contained a veiled threat to hold on to Thessaly until the Cretan question was settled. The German Government proposed to intrust the introduction of the organic statute to a commissioner of the powers. The question of the governor-generalship remained in abeyance until after the Greek loan to secure the deliverance of Thessaly from Turkish occupation had been guaranteed by England, France, and Russia. When Russia then pressed the Ottoman Government to accept Prince George, the German vessel, on March 16, was withdrawn from Cretan waters. Herr von Bülow, who had recently assumed charge of the Foreign Office in Berlin, said that Germany had played only the flute in the European concert. If the Greeks were to be rewarded for their efforts to disturb the peace of Europe and the Cretans for their rebellion against their lawful sovereign, the German Government, which had not a sufficient stake in the Eastern question to risk the bones of a Pomeranian grenadier, would not gainsay the will of the other powers, but did not care to incur any share in the trouble and expense of pacifying the island under such conditions. The Austro-Hungarian Government a month later recalled its squadron from the blockade and its troops at Canea and Kisamo. Neither Germany nor Austria withdrew definitely from the European concert. The British Government, which Lord Salisbury had declared willing to accept any candidate on whom the powers were ready to agree, provided he were not an Englishman nor a Turk, supported warmly the candidature of Prince George. In the middle of March the Porte sent out another circular asking the co-operation of the powers in the establishment of Cretan autonomy. On March 23 the Porte proposed as Governor Alexander Kar-

atheodory Pasha, saying that it had other names in reserve if his candidature should prove unacceptable. The Sultan urged the adoption of the model of the Lebanon and Samos, with a Christian governor, who should be an Ottoman subject, and reiterated his unalterable objections to the candidature of Prince George of Greece.

The admirals having approved the plan of holding semiweekly markets outside of Candia under the protection of British troops, Col. Sir Herbert Cherrside opened one in the middle of March, and it resulted in the killing of several Turkish gendarmes by the Christians. The Assembly was asked to use its influence with the insurgents to preserve order, but the Mohammedans abstained from attending subsequent bazars until Djavad Pasha induced them to attend. When members of the two factions were at last brought together under the surveillance of European troops the first meeting was only formal. Later, the markets were held at regular intervals, but little trading took place. Murders and mutilations were still committed by both sides in the vicinity of Candia. At Retimo Russian troops who went out after cattle raiders were fired upon by Turkish irregulars. In the Canea district, where there was great distress, the French contingent of the international forces came into collision with the Turkish troops, in consequence of which the admirals decided to abolish the Turkish cordon round Canea. The Mohammedans began to emigrate from the island, following the example of the Christians, until the orders of Ismail Bey, the new Turkish military governor, put a stop to the movement. On April 5, for the fourth time, the Porte notified the powers that the Sultan could not accept as Governor a foreign subject, and asked them to guarantee imperial rights and Mohammedan interests. The admirals, who went to Candia to superintend the experiment of opening a bazar, determined to substitute English troops for the Turkish irregulars who occupied the outposts along the cordon. They decided to divide the island into four zones, each to be guarded exclusively by the forces of a single power: the western zone by the Italians, with headquarters at Kisamo, Canea being separated and kept in mixed occupation as before; the adjacent zone by the Russians, with headquarters at Retimo; the next zone, in which was Candia, by the English; and the eastern zone, including Hierapetra, previously guarded by Italian troops, by the French, who retained their headquarters at Sitia. When the Turkish irregulars were withdrawn from the outposts at Candia the cordon was enlarged by agreement with the Christian leaders.

Provisional Government.—In June, Lord Salisbury conferred with the ambassadors of France, Italy, and Russia in London, and as a result of the exchange of views it was decided on a provisional arrangement for carrying on the government in the interior. The task was to be undertaken by a committee of the Cretan Assembly acting under the supervision of the admirals. Its first business was to organize a corps of gendarmerie, and to provide for a loan. The coast towns would remain under the control of the admirals, who were instructed to arrange, if possible, for the concentration of the Ottoman troops at certain points, with a view to their eventual withdrawal. The proposed provisional régime was repugnant to the Porte, and drew forth another circular begging the powers to hasten the final solution of the Cretan question, which it was hoped would respect the sovereign rights and integrity of the empire, and provide for an Ottoman subject as governor. The admirals, in sanctioning the executive committee of the Assembly, reserved the right to revoke its authority in

case of its exceeding its mandate. The governments of the four powers undertook to arrange the loan with an international syndicate of bankers, who would be empowered to collect the customs surtax of 3 per cent. The budget was to be framed by the Executive Council, subject to the control of the four powers, and the Council was empowered to introduce measures for the temporary administration of the island. Elections were held on July 18 for a new Assembly, which, instead of 30 Deputies for each province, contained only 6, or 114 in all.

The Cretan Mohammedans were greatly excited, and the Porte moved to strong remonstrances by the action taken by the admirals in preventing the re-enforcement of the Turkish garrison or the replacement of the troops that went away. Turkish transports when they arrived were ordered to return without debarking their troops. The Porte protested that the powers were in the habit of relieving their own garrisons. Djavad Pasha tendered his resignation as military governor. The Cretan Assembly, which met at Plakouves on July 20, accepted the scheme for a provisional government, but refused to allow native Mohammedans to return to their homes while Turkish troops still remained in the island. Dr. Sphakianaki was elected president of the Executive Council. Modifications in the scheme for a provisional constitution were proposed by the Assembly, and were accepted by the admirals. Native courts were given jurisdiction in criminal cases, subject to revision by the international military tribunal at Canea. The right of pardon was reserved to the admirals. The gendarmerie, composed of natives officered by Europeans, was placed under the direction of the civil authorities, save in matters of discipline. On July 29 the admirals requested authority from their respective governments to collect the tithe on agricultural produce. Some of the powers were slow in giving their sanction to the measure, and consequently no funds were forthcoming to set the Provisional Government in motion. On Aug. 4 the Porte issued a circular stoutly maintaining its right to relieve, renew, and replenish the Cretan garrisons, and declaring its intention to exercise this right. The four powers declared themselves opposed to the dispatch of fresh Turkish troops to Crete. On the departure of Admiral Canevaro the supreme international command devolved on Admiral Pottier by reason of his seniority, and on Aug. 15 French gendarmes relieved the Italian *carabinieri* at Canea. The procrastination of the powers in taking measures for establishing the provisional régime and organizing a gendarmerie exasperated the peasants, who believed that they had been hoodwinked. Anarchy reigned in the western provinces, and murder and rapine were rampant. While the admirals proposed to limit the strength of the new Cretan gendarmerie to 500 men there were thrice that number of outlaws at large in the island. On Aug. 26 the admirals received authority to grant the Assembly the tithes collected on exports. On Sept. 6, as the British were about to install representatives of the Assembly as collectors of tithes in the customhouse at Candia, the Moslems held a mass meeting to protest against the levying of tithes by the insurgents, to complain that the British had broken their promise to enable them to visit their villages, although Christians were permitted to re-enter the town, and to demand release from the suffering and destitution to which forced confinement in the town condemned them while their property was going to ruin. The two British camps in Candia contained only 130 men. The Moslems were in a desperate mood. They prevented the opening of the bazar at Gazi and the landing of Christians from steamers. Neverthe-

less, Col. Reid, successor to Sir Herbert Chermiside, determined to take possession of the tithe office and hand it over to the insurgents. He placed a guard of 20 marines in front of the customhouse to protect the Christian officials who took charge of the tithes. A mob of unarmed Mohammedans jostled the guards until one of them fired into the crowd, killing a man. According to another account the marine had been stabbed, and his weapon was discharged involuntarily. The Mohammedans ran for their arms, and, returning, attacked the marines, who, firing one volley, fled down the quay to a boat which carried them on board the gunboat "Hazard." Of the party 4 were killed and 15 wounded. Col. Reid with a detachment of Highland infantry fought off the Mohammedan rioters for four hours, until the Turkish governor came to his relief and got the British off on a steamer to their gunboat, which meanwhile was shelling the town. The town was set on fire in seven places, and the Moslems fell upon the Christian inhabitants, and butchered at least 800 out of a total number of about 1,200. Of the Highlanders 1 officer and 7 men were killed, and 27 wounded, 4 of these mortally. The Turkish garrison, having been ordered not to interfere when the English demanded the tithes, took no effective measures to stop the massacre. It consisted of 4,000 regular Turkish troops with guns, in addition to a great number of Bashi-bazouks. These latter the Turkish authorities blamed for the disturbance. The international fleet in Suda Bay proceeded at once to the scene of the disturbance. Edhem Pasha placed a Turkish battalion at the disposal of the admirals, and proposed to proceed in person to Candia, but his offer was refused. The insurgents massed themselves round the cordon and attacked the Turkish outposts, while their best fighting men hastened to the spot from other parts of the island. The Cretan Executive Committee offered to send a force of Cretans to assist the English, and declared it to be impossible to organize the Provisional Government unless the Turks evacuated the island. British re-enforcements were dispatched from Malta. Two days after the outbreak 600 international troops had landed, and were encamped in the British position on the ramparts. The surviving Christians of the town, who had been protected by the Turkish troops, were taken on board ships and carried to Canea.

The Bashi-bazouks barricaded the streets and threatened the English outposts and the international camp on the ramparts, while insurgent forces advanced on the Turkish outposts and threatened to attack Suda from Malaxa. Panic seized the Mohammedans at Sitia, and the Christians at Canea and Retimo. The insurgents were massed at Anopolis, one of the British outposts, to the number of 5,000, and fresh bands were marching on Candia from all directions. The Cretan Executive Committee threatened to resign until the Turks left the island, but were requested by the admirals to remain, and assured that a final settlement was near. The admirals requested their governments to send each an additional battalion to Crete, and recommended as the only means of pacification that the Bashi-bazouks, and afterward the Turkish troops and officials, be withdrawn. While they remained, neither the Christian nor the Mohammedan population could be convinced that Turkish rule might not one day be restored. Admiral Noel, who arrived to take command of the English forces, accused the Turkish troops of firing on British soldiers, and the Ottoman commander requested an investigation by a mixed commission. By Sept. 12 the European forces to the number of 6,600 were in possession of the fortress at Candia. Turkish soldiers had restored order in the town. During the *émeute* 29

Bashi-bazouks and 4 Turkish regulars were killed. Admiral Noel, supported by his French, Italian, and Russian colleagues, demanded the delivery of the ringleaders in the outbreak within forty-eight hours, the transfer to his charge of the Christian survivors of the massacre, the surrender of the forts and ramparts held by Turkish troops, the demolition of houses surrounding the British rampart, and the delivery of all tithes collected since Sept. 3. While protesting that the British were to blame for the disorders, through their non-fulfilment of their promise to extend the zone of occupation and their seizure of the tithes, the Porte complied with the ultimatum, which was accompanied by a threat of bombardment. The disarmament of the Bashi-bazouks was also demanded, and they consented to give up their rifles to the Turkish soldiery. About 60 suspected ringleaders were handed over, not to be summarily punished by the British admiral, but to be tried by an international court. Edhem Pasha issued a proclamation ordering the people to deliver up their arms to a commission appointed to collect them. Disarmament was a part of the English demands that the other admirals discountenanced. The Porte on Sept. 11 addressed a circular to its representatives in London, Paris, St. Petersburg, and Rome, protesting against the re-enforcement of the international forces, offering to send Ottoman troops to assist in restoring order, and asking for the nomination of a Turkish subject as Governor of Crete. The British admiral requested the Italian and French commanders to withdraw their forces entirely from Candia, as he was confident that he had a large enough British force to deal with the situation under the circumstances. The Christian leaders were informed that the disarmed Mohammedans were under British protection, and must not be attacked.

The Italian Government, recognizing that, if the Mohammedans at Candia were now under control, at Retimo and Canea they still regarded the Christians as hostages, and the Turkish garrisons, if summoned to withdraw, would probably refuse to leave their posts without orders from Constantinople, and would resist any forcible attempt to expel them, determined to make a final diplomatic effort at Constantinople before proceeding to extreme measures. Accordingly, Admiral Canevaro, now the Italian Minister of Foreign Affairs, suggested to the cabinets of the five other powers that representations be made to the Porte on the following basis: Turkey to withdraw immediately all garrisons and officials from Crete; Europe in return to guarantee both the high suzerainty of the Sultan and the protection of the lives and property of the Cretan Mohammedans. Germany and Austria declined to take part in the negotiations. Lord Salisbury suggested that the safety of the Cretan Mohammedans should be guaranteed by the four powers only to the extent to which it had hitherto been by the Turkish troops. With this proviso the Italian suggestion was accepted, and a joint representation in that sense was made to the Porte. The Turkish Government rejected as illegal the demand for evacuation. The powers regarded the provisional *régime* as having broken down. The British assumed full responsibility for the preservation of order in their allotted sphere. In October, Sir Herbert Chermiside, who had resumed his military command at the time of the disturbances, demanded the removal of Turkish troops from posts that they were ready to occupy, and after some hesitation the Turkish officers withdrew their men to avoid open hostilities. The Russians at Retimo, having re-enforced their garrison with Russian troops and Montenegrin gendarmes in November, proceeded in the same manner.

CUBA, the largest and westernmost island of the Antilles, before the Spanish-American War a colony of Spain. It has a length of 780 miles and is from 25 to 130 miles wide, with an aggregate area of 43,319 square miles, including the Isle of Pines and other adjacent islands.

Finances.—At the beginning of 1898 the war had already cost Spain \$300,000,000, including \$60,000,000 of arrears that there was no money to meet. The Cuban debt on Jan. 1, 1898, consisted of \$118,010,200 of Cuban bonds of 1886, \$171,710,000 of Cuban bonds of 1890, \$143,300,000 of customhouse bonds issued in Spain for the expenses of the war, and \$14,000,000 of bank notes issued without specie guarantee by the Spanish bank for war purposes, making, with the \$60,000,000 of arrears of pay to the army, navy, and civil service and \$15,000,000 of other outstanding debts, the total sum of \$522,020,200, of which more than \$350,000,000 had been incurred on account of the war.

Commerce and Production.—The crop both of sugar and of tobacco promised to be larger in 1898 than in the preceding year. Of sugar a yield of 300,000 tons was looked for, provided the insurgent leaders would allow the cane to be cut and crushed. The yield of tobacco was considerably greater than in 1897, amounting to nearly 80,000 bales in the Vuelta Abajo and 130,000 in other parts of the island, in all about three tenths of an average crop before the war, when 823,096 tons of sugar were produced annually, besides 103,000 tons of molasses, and when the crop of tobacco was about 300,000 bales. The exports were then valued at nearly \$30,000,000, and imports at \$12,000,000. There are about 1,000 miles of railroad and 8,000 miles of telegraph. There were more than 1,000 vessels, with a tonnage exceeding in the aggregate 1,200,000, entered at Havana alone. (For a narrative of military operations in Cuba, see UNITED STATES.)

D

DELAWARE, a Middle Atlantic State, one of the original thirteen, ratified the Constitution Dec. 7, 1787; area, 2,120 square miles. The population, according to each decennial census, was 59,096 in 1790; 64,273 in 1800; 72,674 in 1810; 72,749 in 1820; 76,748 in 1830; 78,065 in 1840; 91,532 in 1850; 112,216 in 1860; 125,015 in 1870; 146,608 in 1880; and 168,493 in 1890. Capital, Dover.

Government.—The following were the State officers during the year: Governor, Ebe W. Tunnell; Secretary of State, James H. Hughes; Treasurer, Willie M. Ross; Auditor, B. L. Lewis; Attorney-General, Robert C. White; Adjutant General, Garrett J. Hart; Insurance Commissioner, Edward Fowler; Agricultural Inspector, E. H. Bancroft—all Democrats; Chancellor, John R. Nicholson; Chief Justice of the Supreme Court, Charles B. Lore; Associate Justices, William C. Spruance, Ignatius C. Grubb, James Pennewill, and William H. Boyce.

Finances.—The State has a debt of \$719,750, but the interest-bearing assets amount to about \$300,000 more than that sum. The time for satisfying claims against the war tax repaid to the State having expired, the sum of \$8,232.17, which was left unclaimed, reverts to the State treasury. The Treasurer received in October \$12,500 taxes from the Baltimore and Ohio Railroad, and \$13,362.50 from the Philadelphia, Wilmington and Baltimore.

Education.—Delaware College had about 90 students in 1897-'98; the expenses amount to about \$40,000 yearly, including \$15,000 for the experiment station. The value of farm lands belonging is \$3,000; four acres are under cultivation, and four are used for experiments. Improvements have been made in the library and reading room, and it now has 8,500 bound volumes. A fire broke out in the machine shops, April 26, which threatened to destroy all the buildings, but all but the shops were saved. The loss was about \$25,000. A new mechanical building was finished and occupied by November. The Legislature appropriated \$19,200 to the institution.

At the closing exercises of the State College for Colored Students, near Dover, May 27, two diplomas were given, and prizes were awarded for the highest average standing, and for excellence in shop work and in declamation. The estimate for the year's appropriation was \$4,800.

Apropos of the failure of an educational bill in the Legislature, it was said by a speaker at the New

Century Club: "We have no State head in our school government; we have 100 local school governments who draw more than half the public funds, yet are not amenable to any head in the State, but keep their school districts in local hands; we need an effective State board." The Legislature appropriated \$100,000 for the free schools, \$450 for institutes for white teachers, and \$100 for colored.

Charities.—The biennial report of the State Hospital for the Insane, at Farnhurst, shows that there were 258 patients at the beginning of the term, and 178 had been admitted since; 98 were discharged, 58 died, and 4 were cured. The average number was 273, and 276 were present, Dec. 1. From the farm attached to the asylum produce valued at \$1,969.47 was raised. In the sewing room 7,233 pieces of clothing were made. The amount expended in the two years was \$95,871.26, of which \$89,999.57 came from the State and \$5,871.69 from the board of patients. The average cost per patient was \$162.23.

The Industrial School for Girls was chartered in 1893, and has been housed since its opening in rented quarters. A square of ground in Wilmington valued at \$8,000 was given for a site by Mr. and Mrs. Samuel Bancroft, and in September the corner stone was laid of a building to cost \$20,000. The school contained twenty-five girls in 1898. The State makes a small appropriation and the county another, but the expenses are largely paid by contributions from the people of Wilmington.

The Ferris Industrial School had 70 boys in April. The levy court made but half the usual appropriation this year.

The annual report of the Delaware Hospital for 1897 shows that 343 patients were admitted, and more than 300 received free treatment. The whole number of days' care given was 7,200. In the dispensaries free treatment was given to 1,726 patients. New facilities have been added, and a training school for nurses has been established. The endowment fund was increased in 1897 by \$10,710, of which \$5,000 was given by the family of Dr. W. P. Johnston; and it was further increased in 1898 by a bequest from Mrs. M. M. Carter of \$5,000. The receipts, including cash balance at previous report, were \$19,902.83, and the cash balance in bank, Jan. 1, 1898, \$1,660.63. The revenue from patients was \$1,281.28. The annual subscriptions aggregated \$3,430.50. The report says that the dispensary service has been abused by persons who are able to

employ doctors, but who come to the dispensary and receive free treatment.

Railroads.—The gross earnings of the Wilmington and Northern for 1897 were \$435,720.81, and the operating expenses \$368,774.66. The rental of leased lines, the interest on funded and floating debts and mortgages, and on car-trust certificates and the taxes leave the net income \$7,433.81. The mileage, including branches and lines operated under contract, is 92.30.

The gross earnings of the Delaware Railroad amounted to \$1,087,466.86, and the operating expenses to \$766,303.69; the interest, taxes, etc., to \$52,139.01; the dividends, \$161,239.50; the surplus, after all deductions, \$93,783.57. There was a decrease in receipts in 1897 of \$208,892.28, due largely to the virtual failure of the peach crop on the peninsula. A new lease was made to the Philadelphia, Wilmington and Baltimore, under which the entire net earnings are paid over to the Delaware company. The gross earnings of the Delaware and Chesapeake were \$96,881.04; the expenses, \$86,037.84; deductions, \$21,109.22; deficit, \$10,266.02. The gross earnings of the Delaware, Maryland and Virginia were \$208,019.10; the expenses, \$189,169.76; deficit after deductions, \$26,514.52. These also are operated by the Philadelphia, Wilmington and Northern.

Mineral Oils.—The exports of mineral oils during the eleven months ending with November, 1898, amounted to 82,631,944 gallons, valued at \$3,137,858. This is a little below the record of the corresponding months of 1897, when there were 84,081,788 gallons, valued at \$3,934,597.

Failures.—A mercantile agency reported 45 failures in the State in 1897, with liabilities of \$210,800, and assets of \$91,950. This is the best showing since 1892, and the amount involved is only about one third as much as in 1896.

Banks.—Trials resulting from the defalcation by which the First National Bank of Dover lost \$107,000 in 1897 were in progress during the year. When it became known that the paying teller had defaulted, a run was prevented by the president, who offered to make good all sums due depositors that the bank was not able to pay. The teller returned in February, and four others were arrested as accomplices. Two more arrests were made in March. E. T. Cooper was convicted in May on one count of an indictment charging him with conspiracy to commit an offense against the United States, and sentenced to imprisonment for eighteen months, and the payment of \$5,000. Indictments were found in June against others, one being United States Senator Kenney. T. S. Clark was convicted in June on five counts of the indictment. Senator Kenney's trial in July resulted in a disagreement of the jury, which stood seven to five for acquittal after seventy-nine hours' consultation. He was again indicted in September, charged with conspiring with W. N. Boggs to misappropriate the funds of the bank, but the trial was postponed till Dec. 5. It ended in the same way; the jury was discharged after deliberating three days without coming to an agreement. Eight favored acquittal, three were for conviction, and one voted a blank on nearly all ballots.

An opinion was given in June by the Chancellor in the suit of N. Lieberman to restrain the First National Bank of Wilmington, and an ex-sheriff from collecting on his bonds. Lieberman was surety for the paying teller of the bank in the sum of \$30,000. The teller committed defalcations extending over a period of fourteen years or more, and was not detected till 1893. The bonds of the plaintiff covered only a part of the time. He resisted payment on the ground that the bank had

not used proper vigilance, and that the teller had been required to perform the duties of bookkeeper, by means of which employment he was enabled to embezzle the money, and that the bond was not given for him as bookkeeper. It was shown on the part of the bank that the work characterized as bookkeeping was the keeping of the individual deposit ledger, and that it was the custom of many banks at that time to impose that duty upon the paying teller. The opinion denied the injunction, setting aside these and other reasons urged for resisting the payment, and according to its terms about \$23,000 may be collected on the bonds.

Old Swedes' Church.—The bicentennial of the laying of the corner stone of this church was celebrated May 28, and on June 5 the one hundred and ninety-ninth anniversary of its consecration. Efforts are making to raise funds to renovate the church and have it in complete repair for the two hundredth anniversary of its consecration in 1899.

Legislative Session.—An adjourned session of the Legislature began Jan. 11 and ended May 30. It was held for the purpose of making such changes and additions to the laws as were needed to make them conform to the provisions of the new Constitution.

A general election law was made, and provision for a uniform ballot.

The Adams law for taxing investments was revised, amended, and passed, was vetoed, and again amended, and received the approval of the Governor on its second passage, the changes having been made in accordance with his recommendations. The levy courts are required to act immediately under the law.

For the purpose of giving the State militia some training in field duty, an expenditure of \$30,000 was authorized, and the Governor, who is commander in chief, was made custodian of the fund. Another bill permits the Federal Government to acquire land in the State on which to build fortifications. A resolution was passed directing the Governor to tender the services of the militia to the Government.

The courts were reorganized according to the requirements of the Constitution. The Court of Appeals is succeeded by the Supreme Court, the Court of General Sessions of the Peace and Jail Delivery by the Court of General Sessions. The salary of the Chief Justice was fixed at \$3,800, and that of each Associate Justice of the Supreme Court at \$3,600. Provision was made for a clerk of the Supreme Court.

May 27 was set apart for receiving portraits of the present Governor and of former governors, which were given to the State and have been placed in the Capitol. Thirty were received, most of them gifts from the families of the governors.

Among the other acts of the session were the following:

Extending the limits of the city of Wilmington; authorizing the State Treasurer to borrow \$50,000; to allow the Delaware soldiers to vote while in the field; requiring the Levy Court of New Castle County to make an annual appropriation to the Ferris Industrial School, at the rate of \$100 for each boy, not to exceed \$5,000 in the aggregate for any one year; requiring all bakers to put a pound of weight in each loaf of bread; granting appropriations for teachers' institutes; creating a general school law; providing for the maintenance of the indigent deaf, dumb, and blind, appropriating \$5,000; providing for the appointment of registration officers; preventing illegal arrests of colored people as well as of white people; providing for the maintenance of indigent imbecile children; making provision for the eradication of infectious diseases

in lower animals; making provision for colored teachers' institutes; abolishing days of grace on negotiable paper after July 1; authorizing the publication of the decisions of the Court of Errors and Appeals, Superior Court, Court of General Sessions of the Peace and Jail Delivery, and the Court of Oyer and Terminer from Feb. 1, 1893, to June 10, 1897; abolishing the old court seals and establishing new ones; regulating the levying of a capitation tax; allowing the taking of an appeal in cases where a demurrer has been filed; regulating the terms of various State officers and fixing their salaries. The Governor's salary is \$2,000; that of the Secretary of State, \$1,000; Treasurer, \$1,450; Auditor, \$1,200; Attorney-General, \$2,000.

Among important bills that failed were these: Regulating telephone rates; providing for the improvement of Wilmington harbor; prohibiting the trading-stamp business; giving the Legislature discretionary power in making laws for levying taxes; regulating the sale of intoxicating liquors from wagons; making wages a prior lien in cases of insolvency; amending the new Constitution so as to give each county equal representation in the Senate; creating a general corporation law; establishing a State board of agriculture; providing for a naval reserve force.

Political.—The death of State Senator R. J. Hanby, of New Castle County, during the session of the Legislature, made a special election necessary, and one was held Feb. 21. The regular and Union Republicans united upon D. F. Stewart; the Democrats divided and put up two candidates. The combined vote for these two was 2,902; the Republican nominee was elected by a vote of 4,058; the Prohibition vote was 19.

At the November election a State Treasurer and Auditor, a Member of Congress, a State Legislature, and county officers were to be chosen. The offices of Treasurer and Auditor were elective for the first time.

The State Convention of Regular Republicans was held Aug. 25, and a ticket was put in nomination. The Union Republicans met Aug. 30 and named the same candidates. In addition to affirming the party principles on currency and protection, the platform favored fortification of the seacoasts, the retention of all territory taken during the war, and Government construction and control of the Nicaragua Canal. On State issues the resolutions said, in part:

"We again declare that we approve of the Constitution of our State as at present amended, reserving the right, however, to correct the infamous gerrymander of the city of Wilmington into the present legislative districts, and to re-establish trial by jury as it has always existed in this State prior to June 10, A. D. 1897.

"We condemn the Democratic party of Delaware for the following:

"For deliberately disfranchising 2,962 of the electors of Kent County who voted at the general election of A. D. 1896, against no one of which voters any charge had been made. It pursued this revolutionary course in defiance of the plain mandate of the laws of Delaware. For counting only such returns of the said general election as were favorable to its continuance in power, unlawfully certifying such count and giving certificates in pursuance thereof. For so legislating in the Constitutional Convention and the General Assembly (both of which bodies it controlled) by means of the votes of men who were not elected, and who acted as judges in their own cases—as to smother all inquiry as to the result of said election, thereby setting aside the dearest of human rights and interests. When proceedings were instituted in the courts to enforce the verdict of the people, it cow-

ardly refused to meet the charge squarely, but resorted to subterfuges and dilatory tactics, thereby confessing that its case was hopeless, that it had been defeated at the polls, and that it had stolen the fruits of the election."

Following were the nominations: For Member of Congress, John H. Hoffecker; Treasurer, L. Heisler Ball; Auditor, John A. Lingo. In many of the districts there were both regular and Union Republican candidates for the Legislature.

The Prohibitionists met in State convention at Dover, Sept. 8. The platform, besides declaring strongly in favor of the special principle of the party, favored woman suffrage, an improved school system liberally supported, and strict enforcement of the laws for insuring purity of elections; and said further: "We condemn the President and all who are in any way responsible for the 'army canteen,' or, in other words, the beer saloons in the camps, whereby the health of the soldiers has been undermined and their morals corrupted."

The nominations were: For Member of Congress, Lewis W. Brosius; Treasurer, John Hutton; Auditor, George F. Jones.

The Single-Tax party made no nomination for Member of Congress, but named Samuel Swain for Treasurer, and Frank L. Brand for Auditor.

The Democratic convention met at Dover, Sept. 18. The platform declared the devotion of the party in Delaware and all the cardinal principles of the Democratic faith, and commended Gov. Tunnell's administration, and the Senators and Representative in Congress for securing the appropriation for Wilmington harbor. The administration of national affairs under President McKinley was declared to be a disappointment, and it was set forth that prosperity has not returned; that trusts, combines, and monopolies have grown, and that no measures of economy have been introduced.

The inequalities of the war-revenue act were condemned. The people were congratulated upon the termination of the war with Spain, and a demand was made that the burdens of war taxation be lessened as quickly as possible. Further the platform said: "The Democratic party generously trusted by the people, has been almost continuously in control of the affairs of Delaware for forty years. Its record in this State has been one of honesty, economy, and devotion to the public welfare. On the whole, the Democratic party in Delaware has been sound and true to the great and beneficent principles upon which as an organization it is founded.

"The Republican party in Delaware has forfeited all rights to the confidence of good citizens by falling under the foul and malign influence of a corrupt political adventurer, who, in his impudent effort to seize in this State a political honor for which he is utterly unfit, has used methods in the primaries of the Republican party and at the general election so base and corrupt that the reputable portion of the Republican party withdrew from fellowship with him and in 1896 set up a separate organization of its own. The nominations follow: For Member of Congress, L. Irving Handy; Treasurer, Willie M. Ross; Auditor, Lemuel A. H. Bishop.

The returns showed that the Republicans had carried all the State offices and will have a majority on joint ballot in the Legislature. The figures for Member of Congress were: Handy, Democrat, 15,043; Hoffecker, Republican, 17,566; Brosius, Prohibitionist 454. For Treasurer—Ross, Democrat, 14,805; Ball, Republican, 17,544; Swain, Single Tax, 935; Hutton, Prohibitionist, 468. For Auditor the vote was nearly the same as for Treasurer. The Senate will stand: Republicans 8, Democrats 9; the House, Republicans 23, Democrats 12.

DENMARK, a kingdom in northern Europe. The legislative body, called the Rigsdag, is composed of two Chambers. The Landsting is the upper house, containing 66 members, 12 of whom are appointed by the Crown for life and the others elected by the highest taxpayers in the country, delegates of the same class in the towns, and delegates of the whole electorate. The Folkething, or popular assembly, is composed of 114 members elected by all male citizens above the age of thirty except domestic servants and recipients of public charity.

The reigning King is Christian IX, born April 18, 1818, the son of Duke Wilhelm of Schleswig-Holstein-Sonderburg-Glücksburg and the successor of Frederik VII, the last sovereign of the Oldenburg line, who died Nov. 15, 1863. The heir apparent is Prince Frederik, born July 28, 1843.

The Cabinet constituted on May 23, 1897, was composed of the following Ministers: President of the Council and Minister of Finance, H. E. Hørring; Minister of Marine and Acting Minister of Foreign Affairs, Vice-Admiral N. F. Ravn; Minister of Justice and for Iceland, N. R. Rump; Minister of Ecclesiastical Affairs and Public Instruction, Bishop H. V. Shyr; Minister of War, Col. C. F. F. E. Tuxen; Minister of the Interior and of Public Works, V. von Bardenfleth; Minister of Agriculture, Alfred Hage.

Area and Population.—Denmark has an area of 15,239 square miles, with a population estimated in 1896 at 2,304,000. The number of marriages in 1896 was 16,823; of births, 70,271; of deaths, 36,090; excess of births, 34,181. There were 2,876 emigrants in 1896.

Finances.—The revenue for the year ending March 31, 1897, was 65,235,336 kroner; expenditure, 65,957,594 kroner. The budget for the year ending March 31, 1898, makes the revenue 66,847,101 kroner, of which 43,455,400 kroner come from indirect taxes, 10,182,550 kroner from direct taxes, 4,540,831 kroner from interest and income, 1,390,000 kroner from lotteries, 764,957 kroner from domains, 202,610 kroner from posts and telegraphs, 722,145 kroner from miscellaneous receipts, and 5,539,108 kroner from expenditure of capital and contraction of debt. The total expenditure is calculated at 64,734,189 kroner, of which 10,385,152 kroner are for public works, 10,011,745 kroner for the army, 6,973,370 kroner for the charges of the public debt, 6,571,406 kroner for the navy, 4,492,088 kroner for the interior, 4,387,368 kroner for the Department of Justice, 4,225,493 kroner for education and worship, 3,686,511 kroner for finance, 3,197,178 kroner for pensions, 2,250,001 kroner for agriculture, 1,155,200 kroner for the civil list and appanages, 620,656 kroner for foreign affairs, 319,016 kroner for the Rigsdag and Council of State, 81,764 kroner for the administration of Iceland, 4,362,641 kroner for extraordinary expenditure, and 2,014,600 kroner for loans, advances, and reduction of debt. The public debt at that date amounted to 196,405,438 kroner, of which 66,515,250 kroner were owed to foreign creditors. The reserve fund on March 31, 1897, amounted to 17,864,565 kroner, and the total value of state investments was 62,706,131 kroner, not including the domains nor the capital of the state railroads, which was 206,942,082 kroner. Recent budgets have shown a steady increase of revenue from indirect taxation, increased expenditure on railroads, a decrease in the interest on the public debt due to conversion, a decrease in expenditure on the army, and a reduction in taxation, beer being the only article on which the tax has been increased since 1891.

The Army and Navy.—All young men of good physique on reaching the age of twenty-two are

drilled six months for the infantry service, eight for the cavalry, or three or four for the artillery and engineers, which is supplemented by a second period of drill lasting from eight months to a year for those who do not show sufficient proficiency after the first course of training. The liability to service lasts eight years in the regular army and reserve and eight in the extra reserve. The regular army in 1896 numbered 751 officers and about 10,000 men with the colors, while the war strength was 1,352 officers and 45,910 men. The volunteer forces bring the total strength up to 60,000, not including 16,500 in the extra reserve, or second line.

The Danish fleet consists of the turret ship "Helgoland," of 5,300 tons; the coast-defense iron-clads "Odin," of 3,050, "Gorm," of 2,350, and "Lindormen," of 2,050 tons; the "Tordenskjold," of 2,400 tons, carrying a 52-ton gun in an armored barrette; the barrette ship "Iver Hvitfeldt," of 3,250 tons; the new turret ship "Skjold," of 4,500 tons; and the deck-armored cruisers "Fyen," of 2,540, "Valkyrien," of 2,850, and "Geiser," "Hekla," and "Heimdal," of 1,270 tons.

Commerce.—The value of the agricultural produce in 1896, including 37,350,000 bushels of oats, 20,600,000 of barley, 19,480,000 of rye, 3,575,000 of wheat, 21,040,000 of potatoes, and 147,200,000 of beets and other root crops, with the crops of hay and vegetables, was 323,598,188 kroner. The production of proof spirits was 7,444,000 gallons; of beer, 48,160,000 gallons; of beet sugar, 44,152 tons.

The value of the imports in 1896 was 383,936,695 kroner, and of exports 283,878,946 kroner, of which 218,600,000 kroner represent the domestic exports. Of the total value of imports 188,200,000 kroner were for articles of food and drink, 121,800,000 for raw materials, 42,500,000 kroner for machinery and other means of production, and 81,400,000 kroner for manufactured articles. In the total value of exports articles of food are represented by 217,600,000 kroner, raw materials by 33,300,000 kroner, means of production by 19,000,000 kroner, and manufactured articles by 14,000,000 kroner. The imports of colonial goods were 31,788,000 kroner, and exports 11,892,000 kroner in value; imports of beverages 5,467,000, and exports 2,713,000 kroner; imports of textile manufactures 42,645,000, and exports 5,384,000 kroner; imports of metal and hardware 44,268,000, and exports 9,041,000 kroner; imports of wood and its manufactures 21,598,000, and exports 2,676,000 kroner; imports of coal 22,138,000, and exports 1,610,000 kroner; imports of animals 3,169,000, and exports 24,440,000 kroner; imports of butter, eggs, pork, and lard 35,485,000, and exports 169,744,000 kroner; imports of cereals 40,801,000, and exports 8,500,000 kroner. The exports of live stock were 16,972 horses, 91,794 cattle, and 4,366 sheep.

The distribution of the foreign trade of 1896 among commercial nations is shown in the following table, giving values in kroner:

COUNTRIES.	Imports.	Exports.
Free port of Copenhagen.....	26,810,000	7,541,000
Great Britain.....	78,264,000	169,684,000
Germany.....	126,077,000	57,842,000
Sweden and Norway.....	56,466,000	30,089,000
Russia.....	32,839,000	5,619,000
United States.....	17,023,000	1,758,000
France.....	7,975,000	1,974,000
Netherlands.....	8,814,000	399,000
Belgium.....	6,555,000	780,000
Danish colonies.....	2,332,000	4,532,000
Other American colonies.....	614,000	170,000

Navigation.—The number of vessels in the foreign trade entered at Danish ports during 1896 was 31,559, of 2,275,815 tons; the number cleared was

31,257, of 662,152 tons. In the coasting trade 35,900 vessels were entered and 35,719 cleared.

The commercial navy of Denmark and colonies on Jan. 1, 1897, numbered 3,651 vessels, of 845,583 tons, of which 439, of 164,075 tons, were steamers.

Communications.—The length of railroads is 1,434 miles, of which 1,067 miles belong to the Government, built at a cost of 206,942,000 kroner.

The postal traffic in 1896 was 74,606,941 letters and postal cards and 69,038,468 newspapers and samples.

The telegraphs, which all belong to the Government, had a total length on Jan. 1, 1897, of 3,349 miles, with 9,375 miles of wire. The number of dispatches in 1896 was 577,062 internal, 1,218,941 international, and 145,751 official. The telegraph receipts for the fiscal year 1897 were 1,357,194 kroner; expenses, 1,571,048 kroner.

Political Affairs.—The neutrality of Denmark has been for several years a part of the programme of the Radical party in the Folkething. Vice-Admiral Ravn, having endeavored to ascertain the views of the European powers on the subject, declared in January his conclusion that there was no probability of obtaining an international guarantee of Denmark's permanent neutrality. In the elections to the Folkething on April 5 the Conservative and Moderate Liberal parties met with a signal defeat, and the Radicals, who had before depended on Socialist support, commanded a considerable majority of the whole house. This did not, however, drive the Conservative ministry to resign, since it justified its continuance in office by the support of the majority of the Landsting and the confidence of the King. The elections resulted as follows: Conservatives, 15; Moderate Left, 23; Radical Left, 63; Socialists, 12. In the previous Folkething there were 24 Conservatives, 25 Moderates, 55 Radicals, and 9 Socialists. One half of the elective members of the Landsting were renewed in September. The Socialists were disappointed in not obtaining an increase in their numbers, the Agrarian Radicals in a doubtful district having joined the Conservatives against them. The Conservatives lost 4 seats, making the house consist of 43 Ministerialists and 23 members of opposition groups.

Colonies.—The colonies of Denmark are Iceland, Greenland, and the West Indian islands of St. Croix, St. Thomas, and St. John. The latter are inhabited by a negro population whose prosperity has been much impaired by the fall in the price of sugar. The total area of the islands is 118 square miles, and the population numbers 32,786. The imports in 1896 amounted to 306,000 kroner, and the exports to 80,000 kroner. Greenland has an area of 46,740 square miles under Danish jurisdiction, with a population of 10,516 souls. The imports in 1896 were 557,000 kroner, and the exports 406,000 kroner. The trade has fallen off, owing to the competition of Japan, in the supply of train oil. The trade in this article and in eider down and furs, the other products, is carried on by a bureau of the Finance Ministry and entails a loss to the Government.

Iceland, which has an area of 39,756 square miles and 70,927 inhabitants, has its own legislative system. The trade returns for 1896, which are imperfect, show 2,089,000 kroner of imports and 3,291,000 kroner of exports.

DEWEY, GEORGE. an American naval officer, born in Montpelier, Vt., Dec. 26, 1837. For portrait, see frontispiece of this volume.

At daybreak on May 1, 1898, Commodore George Dewey, flag officer of the Asiatic squadron, was known in army and navy circles as a faithful and meritorious officer who had distinguished himself

as a subaltern in the civil war, and who had risen by the slow steps of regular promotion in time of peace to his present grade. When the sun went down he stood in the front rank of the victorious naval commanders of his race.

Since he won his brilliant victory over the Spanish at Manila numerous sketches have been published describing his career from boyhood with more or less of authority; and he has been so far away that he could neither confirm nor deny the accuracy of such accounts. His brief official record, as published by the Department, shows that he was appointed to the Naval Academy at Annapolis from Vermont in 1854, and the summary that follows sets forth his term of duty on different ships, the actions in which he participated during the civil war, and the important bureau work in which he was engaged from time to time at the academy and in the Departments at Washington.

His father, Julius Yemans Dewey, M. D., was a typical New England doctor, driving about in his



THE HOUSE IN WHICH ADMIRAL GEORGE DEWEY WAS BORN.

well-known gig over the Green mountain hills in the vicinity of the little city. Like many country doctors of his day, he was an influential citizen and commanded the affection and confidence of a large portion of the community. Montpelier has not changed very much in the sixty years that have passed since Dewey's birth; it is still the clean, thrifty, typical New England town that it was in those days, not very much larger and still cherishing many of the traditions that governed it then. Dr. Dewey was one of the founders of the first Episcopal church in the place, and there his son George and three other children were baptized. George, as soon as he arrived at the mischievous and adventurous age, developed all the energy characteristic of an ambitious Yankee boy. The house where he was born stood on the slope of the hill at the foot of which glides the beautiful but misnamed Onion river, and he is described as having been a barefoot lad driving the cows to and from pasture, attending school, and foremost in all the enterprises and in much of the mischief of his kind.

His father, if report be true, was of the stern Puritanical type of New-Englander, and when George's teacher one day sent him home from school with his back smarting from a liberal use of the birch, George was comforted by the information that unless he showed some evidences of contrition for his wrongdoing his father would repeat the punishment. In these modern days it is to be feared either that the wrongdoer would not receive the punishment that he deserved, or that the weak-minded and indulgent father would go to law and have the daring teacher indicted for cruelty. It was not in this milk-and-water school that young Dewey was brought up, and the result certainly speaks well in

his case. The old doctor, like many of his generation, was conscientiously if not constitutionally an early riser, and he usually succeeded in enforcing his principles upon the rest of the family, so that all hands were usually afoot at an early hour.

George was sent first to the Washington County Grammar School in Montpelier, and there he came under the stern government of Major Z. K. Pangborn, now editor of the "Jersey City Journal." It was a species of revolution, in which young Dewey took a conspicuous part, that brought down upon him the vengeance of Major Pangborn's good right arm and forever put a stop to the spirit of insurrection in that school. Young Dewey, when the smart of the justly administered thrashing passed away, had sense enough to consider judiciously the rights and wrongs of the case, and instead of cherishing enmity in his heart against the man who had corrected him, as a smaller nature would have done, he became sincerely attached to his teacher, and when Major Pangborn went to Johnson, Vt., to establish a private academy, George was sent there at his own request, and there completed the first period of his education, going thence at fifteen years of age to the Norwich Military Academy. There for the first time the attraction of discipline made an impression upon the boy's mind. Prior to that time he had occasionally seen training days in the country when the county militia disported itself upon the village green; but this miscellaneous training had made but small impression on his mind. At Norwich he developed a strong taste and aptitude for military affairs and, greatly against his father's wishes, he evinced a fixed purpose of entering the Naval Academy at Annapolis. After combating his son's expressed wish as long as he deemed prudent, the doctor discreetly yielded, for it was not according to his theory of education to oppose what appeared to be the serious convictions of his children.

So it came to pass that an appointment was secured, and in 1854 George Dewey reported for duty at Annapolis. He was seventeen years of age, an athletic boy of medium height, with such meager knowledge of nautical affairs as could be picked up through the navigation of a flat-bottomed scow along his native river and an occasional voyage of discovery on Lake Champlain. Beyond this his nautical knowledge extended merely to Cooper's novels and the various pirate stories that were available at that day. Boys who came to the Naval Academy were not expected to know one end of a boat from the other until after they had been there long enough to pick up the rudiments; so the subject of our sketch was neither better nor worse off than most of his comrades. But he entered the academy at a momentous period, and there were many among his mates whom he was destined to face in active service before many years had passed. North and South at that period were fast drifting into the political and sectional conditions that led to an actual rupture in 1861; and then, as now, it was customary for the cadets to settle personal differences with the weapons that Nature had given them. The leader of the Southern faction very soon took occasion to give George his opinion of Yankees in general and of George in particular, and was promptly provided with a black eye for his pains. A challenge to mortal combat followed, which George cheerfully accepted; seconds were appointed, and a hostile meeting according to the articles of the "code of honor" would doubtless have taken place had not some of the more peaceably minded cadets informed the authorities in time to have the proceedings stopped and the principals put upon their word of honor to preserve the peace. This, however, was not the end of it, and

there was bad blood between the representatives of the two sections throughout Dewey's academic career.

When he was graduated in 1858 he stood number five in his class, and he was presently assigned to duty as a midshipman on board the steam frigate "Wabash," under the command of Capt. Samuel Barron, of Virginia, afterward a commodore in the ill-fated Confederate navy. The "Wabash" cruised in European waters, visiting many ports of the Mediterranean, and as she was a fine type of the steam frigate of the day she attracted much attention from the naval authorities at the ports that she visited. The Americans at this time, in the early stages of steam as applied to war ships, had evolved a type of frigate as much superior to those in vogue in European navies as was the "Constitution" and her sister ships to those of 1812. As the fine ship lay at Malta, in the midst of the British Mediterranean squadron, one day a handsome steam yacht came in from sea and anchored near the stern of the "Wabash." It was presently whispered about that she was the property of a distinguished nobleman, one of the few first-class steam yachts then afloat, and some curiosity naturally arose among the officers of the American frigate regarding her equipment and her owner. A day or two afterward a general invitation was given out to visitors, and many of the officers and their families from the garrison of Malta and from the British and other men-of-war at anchor in the port came to inspect the formidable man-of-war from across the Western ocean. With his fellow-midshipmen young Dewey was on duty to do the honors, and with his usual enterprise and good luck was fortunate enough to touch his cap to a kindly looking gentlemen who, with a small party, came up the gangway and saluted the quarter-deck with the air of an old sailor. Dewey, who was a handsome boy and self-possessed withal, asked this gentleman if he could be of any service, and being told that he would like to see what was to be seen, proceeded without more ado to show him over the ship, from quarter-deck to engine room, wherever visitors were allowed to go. It was not until the tour of the ship had been nearly completed that Dewey became familiar enough to tender his own card by way of introduction, and to receive a similar courtesy from him whom he now regarded as his guest. The gentleman extracted a card from a stout wallet, and Dewey read thereon one of the most distinguished names in the British peerage. "Yes," his lordship remarked, "that is my little 'teakettle' anchored under your quarter. I am afraid she'll look rather cramped after we go aboard of her from this." Dewey's official conscience began to trouble him as soon as he found out who his guests were, so he insisted upon taking them to his commanding officer and turning them over to the proper authorities, although, as he foresaw, his own presence as an insignificant little midshipman in a roundabout jacket was thereafter totally ignored.

In 1860 George returned to the academy for his examination as passed midshipman, and he was on leave at home in Montpelier when the first shot of the civil war was fired in Charleston harbor. A few days afterward, in the hurried expansion of our naval resources, he was commissioned lieutenant and assigned to the old steam sloop of war "Mississippi." This vessel, with Capt. Melancton Smith in command, was ordered to the western Gulf, and early in 1862 Farragut was assigned to the squadron as flag officer. He immediately began preparations for ascending the Mississippi, reducing the forts at the head of the passes, and securing possession of New Orleans.

Dewey was by this time first lieutenant of the "Mississippi," and she with her heavy-draught sisters of the squadron was with difficulty lightened and hauled over the bar at the mouth of the river, and by the end of February all were re-equipped for service in the deep and swiftly flowing current of the turbid river.

It is not necessary here to recount at large the various incidents of that daring fight when Farragut led his fleet past the heavy batteries of Forts Jackson and St. Philip in the face of channel obstructions and fire-rafts and a formidable Confederate fleet. The "Mississippi," according to the column formation, was third in line, and it devolved upon young Dewey, by the order of Capt. Smith, to con the ship on the way past the batteries. The conning bridge of the "Mississippi" extended across from top to top of her lofty paddle boxes, and there Dewey took his stand. "Do you know the channel, sir?" asked Capt. Smith, somewhat anxiously, as the bell rang "Go ahead!" "Yes, sir," replied Dewey; and every time the question was repeated he gave a similar answer, although he admitted afterward that his knowledge of the channel was derived entirely from a study of a chart and from a sublime confidence in being able to tell from the look of the water where it was best to steer.

No lights were allowed on the decks of Farragut's battle ships save in the binnacle. The decks were whitewashed, but only a dim reflected light from the sky made it possible to see dark shapes of men and guns on the white surface below, until the Confederates lighted the great bonfires on shore. When the ball opened there was no lack of light of a lurid and intermittent character; and then his brother officers who were on the main deck could look up and see Dewey on the bridge, coolly directing the course of the ship as close as he dared under the guns of the Confederate batteries; for the nearer he could go to the shore the less likelihood was there of the vessel's being destroyed by their heavy projectiles. Chief-Engineer Baird of the navy, who was on board the "Mississippi," describes young Dewey's figure as it started out from time to time against the blackness of night in the glare of the almost continuous discharges of guns on shore and afloat. "Every time the dark came back," he says, "I felt sure that we should never see Dewey again. His hat was blown off, and his eyes were aflame, but he gave his orders with the air of a man in thorough command of himself." At a critical point of the battle the Confederate ram "Manassas" came suddenly in sight, bearing down directly upon the "Mississippi." But Dewey was on the alert, and by ordering a quick shift of the helm received a slanting blow from her prow instead of a direct one, and the old frigate was enabled to pour the fire of her battery down into her adversary with such good effect that the ram had immediately to be run ashore and abandoned, while the stately procession of dark Federal ships moved on up the river and on the following day held the Crescent City at the mercy of their guns.

Dewey remained with this ship until it became necessary for the fleet to ascend the river and take part in the investment of Port Hudson. That was a rather disastrous venture, for only Farragut's flagship, the "Hartford," succeeded in passing the formidable batteries. The "Mississippi" grounded directly under the bluffs, where she offered a fair target for the Confederate gunners, and it was soon evident that she must be abandoned. All hands were ordered to the boats and made their escape to the "Richmond" and to the shore, Dewey making several trips back and forth under the terrific fire from the Confederate works, until he alone with

Capt. Smith remained on the quarter-deck. The ship had been fired to prevent her falling into the enemy's hands. "Are you sure she will burn to the water?" asked Smith; and Dewey, at the risk of his life, went down into the ward-room to see if the inner fittings were fairly ablaze. Then, and not till then, the two officers left the ship in the last boat, and an hour later the "Mississippi" went skyward in a great column of fire and smoke, when her magazine exploded.

After this Dewey was placed in command of one of Farragut's smaller gunboats, and he saw much river service during the time that intervened between the fall of Port Hudson and Vicksburg, and a complete rescue of the Mississippi river from Confederate control. He was afterward transferred to be first lieutenant on the "Colorado," under Commodore Henry Knox Thatcher, and took part in the severe engagements at Fort Fisher in December and January, 1864 and 1865. Commodore Thatcher paid the highest possible compliment to Lieutenant Dewey in his report of the engagement, and in March, 1865, Dewey received his commission as lieutenant commander.

After the civil war Dewey served for two years on the "Kearsarge" and the "Colorado," on the European station. In 1867 he married Miss Goodwin, the daughter of Ichabod Goodwin, who was Governor of New Hampshire when the civil war began in 1861. She died in 1872, leaving one son, George Goodwin Dewey, who, after graduation at Princeton, entered upon a business career in New York.

In 1875 Dewey was promoted commander, and not long afterward he was placed in command of the "Juniata" on the Asiatic squadron, where, as recent events indicate, he may have made observations that have since proved of distinguished service. After a period spent in the command of the "Dolphin," one of the first ships of the modern navy, Dewey went to the "Pensacola," of the European squadron; and he has since been engaged as a member of the Lighthouse Board and chief of the Bureau of Equipment.

He was promoted to the rank of commodore, Feb. 28, 1896, and on Nov. 30, 1897, he was assigned, at his own request, to sea service, partly because of impaired health, owing to the confinement of office work, and partly, as it is intimated by some of his friends, because he foresaw naval operations in which the Asiatic squadrons of the world were, in his estimation, destined to play a conspicuous part. For whatever reason, he was assigned to this command, and when he was notified by telegraph, April 21, that war had been declared with Spain, we may believe that he was convinced that his old fighting luck had stood by him. His fleet, consisting of six ships, was in the British harbor of Hong-Kong, and, as in duty bound, the British Government, through its local representative, immediately notified him that he must put to sea within forty-eight hours. Prior to this, every effort had been made to secure supplies of all kinds, and little remained to be done except to fill the coal bunkers to their utmost capacity and steam across by the shortest route to engage the Spanish squadron, which it was believed lay in the harbor of Manila. Before the declaration of war Dewey had purchased two ships, one of which was loaded with 3,000 tons of the best Welsh coal, and the other carried a six months' supply of provisions for the fleet. The coal supply was of course the crucial question, and with modern rapid-fire guns it is impossible for a man-of-war to carry ammunition enough to last her through more than a few hours of active work. No port where he could obtain supplies, or where he could refit in case one or

more of his ships became disabled, was open to him. His nearest home port, San Francisco, was 7,000 miles away, and it behooved him either to conquer a base where he could lie in safety and obtain coal or ignominiously sail for home. His orders were brief and to the point. "Capture or destroy the Spanish fleet," the dispatch read, and Dewey was not the man to waste time in idle speculation. The squadron took advantage of China's failure to proclaim neutrality and lay for two days in Mirs Bay, until final preparations could be completed and final information acquired. Waiting only for the arrival of Mr. Williams, the United States consul, the squadron headed direct for the Philippines. The cable from Manila to the mainland was still intact, and it was assumed—correctly as it afterward proved—that the Spaniards were advised of Dewey's movements up to the time of his departure from Mirs; but they did not count upon the precise manner in which a graduate of the Farragut school of maritime warfare would conduct subsequent operations.

The fleet arrived off the entrance to Manila Bay in the dark of the last night of April, and instead of lying in the open, as the Spanish admiral no doubt expected him to do, Dewey led the way with his flagship, the "Olympia," directly into the harbor mouth, past the fortified island of Corregidor whose batteries might wake up at any moment, and over unknown fields of mines and torpedoes whose locality could only be guessed.

The Spanish outlook on Corregidor could not have been very alert, or else it trusted to luck, and luck went against it. The head of the column was nearly abreast of the lighthouse before an alarm signal was fired and an answering flash came from the mainland; but the ships moved on, and not a gun was discharged while the grim procession advanced up the narrow strait.

By some unexplained accident, a life buoy was dropped overboard from one of the leading ships, perhaps from the flagship itself, and as it was one of the automatic-lighting variety, the squadron was startled by seeing a bonfire on the surface of the water immediately in the track of the advancing ships. The nature of the blaze was quickly detected by the sharp-eyed lookouts, and barring a slight precautionary sheer to port or starboard, as the case might be, the squadron moved on, only alarmed and exasperated by the smoke of the "McCulloch," which insisted upon igniting from time to time at the top of her smokestack and making an admirable target for the enemy's gunners should they be disposed to take advantage of it. Three times this provoking smoke flared up, and at last came the first shot of the battle of Manila from a battery only half a mile distant from the passing squadron. There was no halt in the progress, and no acceleration of speed, but with a few answering shots the fleet passed on, leaving the Spanish gunners to waste their ammunition, if they chose to do so, upon the dark waters of the bay.

Thence onward until daylight the fleet steamed at a slow rate, calculated to bring them off the city at about daybreak, and as the first light of morning appeared in the east the masts of the shipping off Manila became visible. The men were at quarters, and coffee was served while the squadron steamed through the fleet of merchant vessels toward the Spanish war ships that could now be seen off the fortress of Cavité. Then battle flags were broken out, and with the "Olympia" in the lead the squadron headed in without a moment's pause in as regular order as if they were engaged in a holiday parade in Hudson river. The Spaniards began firing as soon as our fleet came within range, but Dewey's orders were not to reply until signal was

made from the "Olympia." When the American firing did begin it was terrific, and the superiority of the American gunners was at once apparent as the range was caught up and heavy projectiles began to hammer the sides of the Spanish war ships.

The commodore led the procession on his flagship, and after delivering the full weight of his battery against fleet and forts turned and was followed by all the ships in succession, passing five times up and down the line of fire from the Spanish ships and fortress. The expenditure of ammunition was so rapid and destructive that the commodore feared some of the magazines must be nearly exhausted, and so, after passing the fifth time, he led the way out of the range and was followed by the rest of his fleet. This was the real reason for the lull in the fight, not because he deliberately stopped, as has been reported, to give his men their breakfast. However, when he had satisfied himself that the ammunition was sufficient, he improved the opportunity and gave the men their breakfast before returning to finish the work that he had begun. This was effected in short order, and a little before 1 o'clock in the afternoon the victory was complete, the last Spanish flag came down, and the American squadron anchored just outside the fleet of foreign merchant vessels whose crews had watched the whole action with absorbed interest. The commodore had obeyed his orders—the enemy's fleet was totally destroyed. Negotiations followed through Mr. Ramsay Walker, the British consul in Manila, and from that time until the final surrender of the city not a hostile act was committed by the Spaniards, thanks, no doubt, to Capt.-Gen. Augustine, who was then in charge.

The telegraphic cable that connects Manila with Hong-Kong and the rest of the world was as yet uncut, and Dewey notified the Spanish authorities that he would not interfere with it provided they would allow him to use it to communicate with his own Government. This they declined to do, so that the commodore had the best of all reasons for promptly sending one of his ships to grapple the cable and prevent any further mendacious messages to the Government at Madrid. The cable, however, had already been utilized to telegraph the probable annihilation of the American fleet by the Spaniards, and such was the first news of the engagement that went out to the world. A true version of the affair was not transmitted until Dewey sent one of his vessels back to Hong-Kong with his official report.

As soon as the news went abroad, the great powers of Europe, represented by strong squadrons in Asiatic waters, telegraphed to their respective flag officers to proceed to Manila and supervise the doings of this Western upstart who had presumed to trespass upon their preserves. A Frenchman was the first to appear, and he was promptly followed by a fleet of German ships that would probably have overmatched our own squadron had it come to blows. These Germans immediately began to make the situation very uncomfortable for Commodore Dewey. They established obtrusively friendly relations with the Spanish authorities, and not until Rear Admiral Dewey (for he had now received his promotion) notified Vice-Admiral von Diederichs that he regarded his actions as verging upon unfriendliness, were the objectionable and defiant practices discontinued. He distinctly intimated that he would expect the German admiral to pursue a different course in the future. This message, it is understood, was backed up by such friendly relations with the British squadron that had then arrived in the harbor, that from that day there was less cause for complaint.

Some time necessarily elapsed before re-enforcements could reach Manila from San Francisco, and

this was naturally a period of great anxiety and responsibility for Admiral Dewey. He, however, conducted everything with great discretion and success, treating the Filipinos with due consideration and firmness and restraining them from excesses which they might otherwise have committed. The threatened approach, too, of Admiral Cámara's fleet was a cause of constant anxiety; the news that it had reached Suez with ships coaled and ready to sail for Manila brought the crisis, as was estimated, within ten or twelve days of fulfillment. Cámara's fleet comprised ships that were greatly superior in equipment to any of Dewey's; and with the reduced supply of ammunition and the impossibility of procuring additional stores beyond those captured from the Spaniards at Cavité, the situation certainly was extremely critical. But on July 17 a steamer was seen coming in, which proved to be a Japanese cruiser, and after communicating with her a fleet signal was run up on the "Olympia," and immediately on each of her gun turrets a signal boy was busily at work transmitting a message to the neighboring ships. Through a hundred glasses the little signal flags were watched, and letter by letter the message was spelled out: "Cervera's fleet destroyed off Santiago; Cámara's fleet recalled from Suez." Such was the substance of the dispatch. The enthusiasm and relief experienced by every man in the squadron at this news, which practically closed the war and was in fact shortly afterward succeeded by a suspension of hostilities, can be readily imagined.

Apparently only one portrait of Admiral Dewey is extant. This has been reversed and touched up and reproduced in various forms and in all sorts of publications, but obviously it is from the same photograph. It is a good likeness, conveying upon the whole an excellent idea of the man's personality. In stature he is of medium height, not conspicuously erect, somewhat stout, but apparently of a good and still athletic physique. In manner he is extremely quiet and reserved; no one would ever think of him as a resolute and determined fighter of the old "sea-dog" type, although his piercing black eye and a certain curttness of speech indicate an active intelligence and a strong will that are pretty sure to make themselves felt when an emergency arrives. Fortunately for him the admiral's sphere of duty in the recent war was so far removed from the arena of politics and rivalries at home and in Washington that he encountered no enemies in the field of his fame save those whom he was sent out to capture or destroy. He persistently allows it to be understood that he does not wish to return home until the duties for which he was sent to Asiatic waters have been performed.

On May 9 Senator Lodge, of Massachusetts, offered the following resolution, which was agreed to without debate: "That the Secretary of the Navy be and he is hereby authorized to present a sword of honor to Commodore George Dewey, and to cause to be struck bronze medals, commemorating the battle of Manila Bay, and to distribute such medals to the officers and men of the ships of the Asiatic squadron of the United States under command of Commodore George Dewey on May 1, 1898; and that, to enable the Secretary to carry out this resolution, the sum of \$10,000 is hereby appropriated."

On March 3, 1899, Rear Admiral Dewey was promoted to the rank of Admiral.

See "Life of Admiral George Dewey, from Montpelier to Manila," by Adelbert M. Dewey (New York, The Woolfall Company, 1899).

DISASTERS IN 1898. A list of the accidents and disasters occurring during a calendar year can not be verified by comparison with official returns until several months have passed. Hence such a list

as the one printed herewith should not be taken as absolutely accurate and exhaustive. It is safe to assume, however, that the actual fatalities and losses of the year are largely in excess of the figures here given. The fire losses and the statistics regarding railway accidents may be regarded as approximately correct. They are quoted from the "Journal of Commerce and Financial Chronicle" and from the "Railroad Gazette." Of these disasters a very large proportion might have been avoided by the exercise of moderate prudence and foresight. When it is shown, as in the year 1898, that the fire losses in the United States and Canada amounted to \$119,650,000, it may well cause thoughtful persons to ask whether it would not be well to restrict the use of fireworks, of explosive parlor matches, of inflammable draperies, and the like, to the end that life and property might be spared at least some of the perils that beset them.

January 1. Shipwreck: French steamer *St. Louis* lost in the Mediterranean, 15 perish.

3. Faulty structure: a floor gives way in the City Hall in London, Ontario, 25 killed.

7. Explosion: Glasgow, Scotland, 4 killed. Shipwreck: steamer *Clarissa Radcliffe*, off Cape Vincent, several lives lost.

9. Train derailed, Shorters, Ala., 21 hurt.

12. Earthquake in the Molucca or Spice Islands, Malay Archipelago, about 50 killed, 200 hurt.

18. Train derailed, Colfax, Cal., 3 killed, 3 hurt.

21. Trains in collision during fog, Ashley Junction, S. C., 2 killed, 4 hurt.

23. Trestle falls, New Albany, Ind., 2 killed, 2 hurt.

24. Fire, Spokane, Wash., 8 lives lost.

25. Trains in collision, Upton, Ky., 3 killed, 3 hurt.

29. Train derailed, Orono, Me., 4 killed, 30 hurt.

Fires in January: Stockton, Cal., granary, loss, \$500,000; Chicago, business houses, \$450,000; East St. Louis, grain elevators and business houses, \$1,500,000; Spokane, Wash., business houses, \$240,000; Chicago, business houses, \$200,000; Milwaukee, tin works, \$200,000; and 192 others; aggregate loss, \$9,472,500.

Summary of train accidents in January: 113 collisions, 130 derailments, 14 others; total, 257. Killed: 39 employees, 6 passengers, 3 others; total, 48. Hurt: 105 employees, 72 passengers, 3 others; total, 180.

February 1. Canada, New England, and several of the Western States visited by destructive blizzard, \$1,500,000 damage in Boston alone; other heavy losses in the country at large. Shipwreck: British steamer *Channel Queen*, off island of Guernsey, 19 perish.

2. Fire: lighthouse burned, Crosby, England, 3 lives lost.

4. Fire in Boston, 6 firemen killed.

5. Train derailed by a stray cow, Hematite, Mo., 2 killed, 5 hurt.

9. Fire: Pittsburg, Pa., warehouses burned, loss, \$1,500,000, 18 killed.

10. Trains in collision, Kirkland, Ala., 4 killed, 3 hurt. Also at Benham, Texas, 3 killed.

11. Shipwreck: British steamer *Marbella* sunk in Hull roads by collision with H. M. S. *Galatea*. Fires in New York cause damage to the amount of \$1,000,000.

12. Shipwreck: Holland-American steamer *Veen-dam* lost at sea; all hands saved by American liner *St. Louis*.

15. Explosion: United States battle ship *Maine* destroyed in Havana harbor, 266 killed, many injured.

16. Shipwreck: French steamer *Flachat* cast away on Canary Islands, 87 perish.

17. Explosion: fire damp in a Westphalian coal

mine, about 75 killed. Trains in collision, Hubbard, Iowa, 4 engines wrecked, 4 men killed.

18. Trains in collision, Cramer, Cal., 2 killed.

Fire: London, large amount of stage properties burned belonging to Sir Henry Irving.

25. Train derailed by burning woods, Waycross, Ga., 1 killed, 4 hurt.

27. Shipwreck: French steamer *La Champagne* disabled at sea, towed into Halifax by steamship *Roman*. Storm: many lives lost on the Colorado Islands, near Madagascar.

Fires in February: Naugatuck, Conn., rubber works, loss, \$700,000; Winnipeg, Manitoba, \$400,000; Scranton, Pa., Young Men's Christian Association building, etc., \$160,000; Savannah, Ga., Roman Catholic cathedral, \$225,000; Fort Worth, Texas, business houses, \$250,000; Pittsburg, Pa., warehouses, etc., \$1,500,000; Cleveland, Ohio, business houses, \$375,000; New York office buildings, \$250,000; Pittsburg, Pa., wall-paper works, \$260,000; Dyersburg, Tenn., mills, \$200,000; Louisville, Ky., tobacco warehouses, \$350,000; and 294 others; aggregate loss, \$12,629,300.

Summary of train accidents in February: 76 collisions, 97 derailments, 2 others; total, 175. Killed: 22 employees, 1 passenger, 4 others; total, 27. Hurt: 58 employees, 45 passengers; total, 103.

March 1. Hurricane in the western Pacific, many shipwrecks, French gunboat sunk, heavy loss of life.

2. Train derailed, Fayetteville, N. Y., 2 killed, 2 hurt.

9. Trains in collision, Walkerton, Ind., 3 boys stealing a ride killed.

12. Fire: New York lodging house burned, 11 perish.

16. Fire in Chicago, 16 perish. Shipwreck: unknown steamer sunk off Lowestoft, all hands lost.

18. Explosion: Santa Isabel mine, Cordova, Spain, 60 killed, many missing.

19. Earthquake in the Spice Islands, 60 lives lost.

21. Trains in collision, New Cross, England, 3 killed, several hurt.

22. Trains in collision, Roscoe, Ill., 2 killed, 5 hurt. Floods cause much distress and loss in Ohio and Indiana.

23. Faulty structure: bridge breaks over White river, near Columbus, Ind., whole train falls into the water, 20 injured, 1 fatally.

25. Storms of great severity in the British Islands, Spanish torpedo boat *Audax* badly damaged, nearly 200 fishing boats lost.

26. Severe storm and cold on the coast of Newfoundland, 48 seal hunters perish, 50 badly frozen.

31. Earthquake in San Francisco, the city severely shaken, much damage done to large buildings and to the United States navy yard at Mare Island.

Fires in March: Providence, R. I., warehouses, loss, \$150,000; Deadwood, S. Dak., smelting works, \$230,000; Baltimore, Md., factories, \$180,000; Cohoes, N. Y., mills, \$450,000; Chicago, Ill., hotel and business houses, \$680,000; San Francisco business block, \$150,000; and 171 others; aggregate loss, \$7,645,200.

Summary of train accidents in March: 66 collisions, 98 derailments, 8 others; total, 172. Killed: 15 employees, 1 passenger, 3 others; total, 19. Hurt: 92 employees, 31 passengers, 1 other; total, 123.

April 3. Avalanches: about 150 persons perish in the Chilkoot pass, Alaska. Flood: the Ohio river bursts its levees at Shawneetown, Ill., many persons drowned.

5. Severe snowstorm in Middle and Eastern States, considerable damage to growing crops; floods in Illinois, 23 persons drowned at Shawneetown, 7 missing.

6. Flood: Mississippi river passes the danger line at Memphis.

7. Fire: about 1,000 houses burned in Tokio, Japan.

17. Explosion in Charlestown, Mass., on Hoosic Tunnel docks, fire follows, damage, \$600,000.

21. Fire: the Rev. Dr. Spurgeon's Tabernacle, in London, burned.

26. Explosion: powder mills at Santa Cruz, Cal.; fire in Glasgow, Scotland, \$750,000 damage.

30. Explosion: Clipper Gap Powder Mills, near Auburn, Cal., struck by lightning.

Fires in April: Lincoln, Neb., business houses, loss, \$200,000; Rockhill, S. C., sundry buildings, \$200,000; Union Islands, Ga., mills and lumber, \$200,000; Sacramento, Cal., railroad stores, \$250,000; Erwin, Pa., plate-glass works, \$550,000; Chester, Mass., grain elevator, etc., \$500,000; Belt, Mont., coal crusher, \$250,000; and 171 others; aggregate loss, \$8,211,000.

Summary of train accidents in April: 50 collisions, 68 derailments, 7 others; total, 125. Killed: 17 employees, 1 other; total, 18. Hurt: 23 employees, 21 passengers, 4 others; total, 48.

May 7. Train derailed by exploding dynamite, Maria's, Mont., 3 killed, 2 hurt.

8. Train derailed, Columbus, Ohio, 4 killed, 20 hurt.

21. Fire and explosion in Zollern mines, 45 killed. Trains in collision, Rossville, Tenn., 1 soldier killed, 6 hurt; also at Formosa, Ill., 4 killed, 20 hurt.

23. Collision: military train wrecked near Ways, Ga., 2 soldiers killed.

27. Trains in collision, Graysville, Tenn., 5 killed, 2 hurt.

Fires in May: Augusta, Ga., grain elevator, loss, \$200,000; Ballardville, Mass., storehouses, \$425,000; Philadelphia, toys, etc., \$225,000; Chicago grain elevators, \$1,200,000; Attleboro, Mass., jewelry, \$300,000; Toledo, Ohio, stores, \$340,000; Dallas, Texas, furniture, etc., \$375,000; Baltimore, Md., stables, etc., \$255,000; and 155 others; aggregate loss, \$11,072,200.

Summary of train accidents in May: 68 collisions, 76 derailments, 6 others; total, 150. Killed: 28 employees, 4 passengers, 4 others; total, 36. Hurt: 78 employees, 43 passengers, 18 others; total, 138.

June 1. Shipwreck: schooner *Lady Jane Gray* founders off coast of Alaska, 34 lost, 27 saved.

2. Fire: Peshawar, India, about 4,000 houses burned.

3. Train derailed, Sedgwick, Col., 10 hurt.

7. Train derailed, Parkersburg, W. Va., 2 killed, 3 hurt. Rock placed on track by depraved boys.

9. Train derailed, Clyde, N. Y., 1 killed, 4 hurt.

10. Train derailed by a landslide, Williston, N. Dak., 2 killed, 1 hurt.

14. Explosion: steam boiler, Ironton, Mo., 1 killed, 4 hurt. Trains in collision, Richmond, Va., 1 killed, 4 hurt.

19. Trains derailed, Shawsville, Va., 3 killed, 8 hurt; also at Glen Onoko, Pa., 2 killed, 5 hurt.

21. Faulty structure: Blackwall, England, a platform falls at the launching of British battle ship *Albion*, 37 drowned.

22. Runaway engine at Niagara Falls, 1 killed.

24. Train derailed, St. Joseph, Mo., 2 killed.

26. Train wrecked, Tupelo, Miss., 6 killed, 14 hurt, most of them soldiers. Fire: Clifton House burned, Niagara Falls.

28. Train derailed, Vinegrove, Ky., 3 killed.

Fires in June: Superior, Wis., chair factory, loss, \$200,000; Portsmouth, Ohio, rolling mill, \$300,000; Detroit business block, \$295,000; Park City, Utah, various buildings, \$600,000; Albuquerque, New Mexico, opera house, etc., \$200,000; Lincoln, Neb., stores,

\$300,000; Louisville, Ky., foundry, \$275,000; Philadelphia, oilcloth works, etc., \$260,000; Peoria, Ill., distillery, \$200,000; New Whatcom, Wash., lumber, \$400,000; and 166 others; aggregate loss, \$9,206,900.

Summary of train accidents in June: 52 collisions, 88 derailments, 4 others; total, 146. Killed: 21 employees, 5 passengers, 2 others. Hurt: 67 employees, 60 passengers, 4 others; total, 131.

July 2. Trains in collision, Grovetown, Ga., 3 killed, 7 hurt.

3. Trains in collision, Park Station, Ky., 2 freight trains at full speed meet on a trestle, 34 cars derailed and wrecked, 1 man killed, all others saved themselves by jumping; alleged cause, disregard of orders.

4. Shipwreck: French steamer *La Bourgogne* in collision with British ship *Cromartshire*, near Sable island, 560 lives lost, including the captain and several officers.

6. Explosion: Royal Albert docks, England, 5 killed, several hurt.

13. Trains in collision, Jefferson, Ala., 1 killed, 3 hurt.

14. Explosion: boiler bursts in Niagara Starch Works, 6 killed, 26 hurt.

18. Trains in collision, Georgetown, Ind., 3 killed; cause, neglect to flag.

21. Severe thunderstorms throughout New England, many buildings struck by lightning.

23. Earthquake in Chili: province of Concepcion severely shaken.

25. Fire: town of Pugwash, Nova Scotia, partly destroyed.

26. Train derailed, Columbia, S. C., 16 hurt.

27. Explosion: Hercules Powder Works, California, 5 killed; malice the supposed cause.

29. Destructive storms in the British Islands: many shipwrecks and much property destroyed along the coast. Trains in collision at McComb City, Miss., 2 killed, 1 hurt.

30. Storms continue on the northeast coast of England.

Fires in July: Boston, stores, etc., loss, \$200,000; Allegheny, Pa., theater, etc., \$175,000; West Hammond, Ind., starch works, \$250,000; Stevens Point, Wis., paper-pulp works, \$200,000; Oswego, N. Y., malt house, \$170,000; Pittsburgh, Pa., railway stables, \$175,000; Escambia, Mich., business houses, \$150,000; and 171 others; aggregate loss, \$8,929,750.

Summary of train accidents in July: 76 collisions, 80 derailments, 4 others; total, 160. Killed: 30 employees, 1 passenger, 9 others; total, 40. Hurt: 95 employees, 32 passengers, 5 others; total, 132.

August 2. Train derailed, St. Joseph, Arizona, 2 killed, 14 hurt. Cloud-burst, Madiana, Spain, 40 drowned.

4. Train derailed, South Norwalk, Conn., 1 killed, 11 hurt.

7. Train wrecked, Cass lake, Minnesota, 2 killed, 6 hurt.

8. Fire: town of Bismarck, N. Dak., partly destroyed. Boats upset in Lisbon harbor, Portugal, 20 drowned.

9. Train derailed, Canton Junction, Mass., 3 killed, 3 hurt.

10. Collision, Sharpsboro, Mo., 1 killed, 5 hurt; another at Churubusco, Ind., 2 killed, 3 hurt. Violent storms reported in Formosa, hundreds of lives lost by tidal waves and other causes.

12. Train wrecked in Italy, 9 killed, 40 hurt.

13. Cloud-burst in Hawkins County, Tennessee, 17 persons drowned, others missing.

14. Fire: Fresno, Cal., 4 killed, loss, \$500,000.

15. Tornado, Minnesota, 7 killed. Shipwreck: steamer *C. C. Funk*, on Flanders island, nearly all hands lost.

16. Fire at Niji-Novgorod, factories and houses burned, loss, 1,500,000 rubles.

17. Another fire at Niji-Novgorod, public buildings burned, many lives lost.

19. Cloud-burst, Pittsburg, Pa., 6 drowned.

21. Trains in collision, Sharon, Mass., 4 killed, 30 hurt. Train wrecked at Speed, Ind., 1 killed, 15 hurt; cause, a loose door on a refrigerator car.

25. Shipwreck: collision at sea, steamer *Norge* and French schooner *La Coquette*, 16 lives lost.

27. Storm in Italy, 18 killed by fall of building at Foggia.

28. Train derailed, New Castle, Ala., 3 soldiers killed, 15 hurt.

29. Four persons perish while climbing a mountain in Canton Valois, Switzerland.

Fires in August: Dayton, Wash., grain elevator, loss, \$300,000; Bismarck, N. Dak., various buildings, \$675,000; Fresno, Cal., railroad property, \$500,000; Chicago, grain elevator, \$250,000; Pottsdam, N. Y., paper-pulp works, \$300,000; Nashville, Tenn., business houses, \$292,000; Buffalo, N. Y., sundry buildings, \$200,000; and 116 others; aggregate loss, \$7,793,500.

Summary of train accidents in August: 83 collisions, 94 derailments, 5 others; total, 182. Killed: 15 employees, 14 passengers, 4 others; total, 48. Hurt: 93 employees, 152 passengers, 6 others; total, 251.

September 1. Train derailed, Fulton, N. Y., 1 killed, 10 hurt, switch maliciously misplaced.

5. Train derailed, Washington, D. C., 2 killed, 1 hurt.

6. Faulty structure: bridge breaks at Hogansville, N. Y., 18 killed, 27 missing. Train wrecked at Whippenton Junction, Mass., 1 killed, 14 hurt.

10. Fire: Ocean Hotel burned, Newport, R. I. Train derailed, Apache, Col., 2 killed, 1 hurt.

11. Hurricane in the British West Indies, thousands of buildings wrecked, about 500 lives lost. Fire: town of Jerome, Arizona, nearly destroyed, 8 lives lost; town of New Westminster, British Columbia, partly burned.

12. Cloud-burst, Sulphur, Texas, 1 killed, 2 hurt. Typhoon: central provinces of Japan desolated, about 100 lives lost and great damage to property.

16. Trains in collision, Osceola, Mich., 2 killed.

21. Explosion in coal mine, Brownsville, Pa., 8 killed, many hurt.

22. Trains in collision, White River, Wis., 1 killed, 1 hurt.

23. Violent storm in the Baltic Sea, 120 fishermen reported lost.

27. Storm in the vicinity of Buffalo, N. Y., 11 killed, many hurt; damage, \$250,000.

29. Forest fires of wide extent in Wisconsin, Colorado, and South Dakota. Trains in collision, Dillsboro, Ind., 3 killed, 3 hurt.

30. Train derailed, Savoy, Wis., 2 killed, 1 hurt.

Fires in September: Owosso, Mich., furniture warehouse, etc., loss, \$200,000; Memphis, Tenn., grain elevator, etc., \$245,000; Prescott, Arizona, many buildings, \$1,000,000; New Westminster, British Columbia, \$2,500,000; Toledo, Ohio, grain elevator, \$650,000; Washington, D. C., stores, etc., \$250,000; North Weymouth, Mass., factory, \$480,000; Colorado, forests, \$600,000; Cumberland, Wis., lumber, etc., \$225,000; Wisconsin, forests, \$800,000; and 154 others; aggregate loss, \$14,203,650.

Summary of train accidents in September: 99 collisions, 82 derailments, 4 others; total, 185. Killed: 33 employees, 6 passengers, 11 others; total, 50. Hurt: 78 employees, 43 passengers, 7 others; total, 128.

October 1. Fire: Colorado Springs, loss, \$1,000,000.

2. Hurricane: South Atlantic coast devastated,

estimated loss, \$500,000, about 20 lives lost. Fire at Hang-Kow, China, many hundreds of houses burned, unknown number of lives lost.

4. Ferryboat capsizes in the Indus, British India, about 100 lives lost.

8. Trains in collision, Omaha, Neb., 2 killed, 3 hurt.

14. Shipwreck: British steamer Mohegan lost on Manacle Rocks, 106 lives lost.

15. Trains in collision, Great Falls, Mont., 2 killed, 1 hurt.

17. Train wrecked, Drawby Junction, England, 9 killed, many hurt. Explosion of naphtha on ship-board off Margate, 9 killed.

18. Destructive storms and wreckage on the coast of the British Islands.

20. Violent storms in Texas, 2 killed, many hurt, great damage to the cotton crop.

22. Train wrecked, Fort Worth, Texas, 5 tramps killed, 3 hurt.

26. Two steamers in collision in Japanese waters, 60 lives lost. Trains wrecked, Omaha, Neb., 3 killed, 1 hurt.

Fires in October: Colorado Springs, hotel, loss, \$875,000; Clarksville, Tenn., tobacco warehouses burned, \$575,000; Atlantic City, N. J., sundry buildings, \$200,000; Tacoma, Wash., hotel, etc., \$200,000; Dallas, Texas, warehouses, \$150,000; South Brooklyn, N. Y., naval stores, etc., \$275,000; Vancouver, British Columbia, lumber, \$200,000; Shreveport, La., drugs, etc., \$175,000; and 147 others; aggregate loss, \$7,539,400.

Summary of train accidents in October: 111 collisions, 105 derailments, 1 other; total, 217. Killed: 33 employees, 1 passenger, 11 others; total, 45. Hurt, 87 employees, 15 passengers, 8 others; total, 110.

November 5. Faulty structure: roof falls in Detroit, 11 killed, several hurt.

6. Explosion in the Capitol at Washington, Supreme Court and adjoining rooms damaged.

11. Trains in collision, Newport, Pa., 6 killed, 5 hurt. Train derailed, Bridgeport, Conn., 2 killed.

24. Train derailed, Burlington, Iowa, 2 killed, 3 hurt. Locomotive explosion and bridge burned, Swallows, Col., 2 killed, 3 hurt.

26-27. Destructive storm of wind, rain, and snow on the north Atlantic coast. Steamers Portland and Pentagot lost with all on board, about 180 souls. Nearly 200 other vessels were wrecked and about 200 lives lost.

27. Explosion: steamboat T. C. Walker, Sacramento river, California, boiler bursts, 6 killed, 11 hurt.

28. Explosion: ordnance stores in Havana, 12 killed.

Fires in November: Glen Cove, Long Island, loss, \$195,000; Sacramento, Cal., railway plant, \$500,000; Joliet, Ill., tin works, \$150,000; Canonsburg, Pa., sundry buildings, \$150,000; Perry, Iowa, business houses, \$337,000; West New Brighton, shipyard, \$225,000; San Francisco, Cal., stores, etc., \$1,500,000; Kansas City, furniture warehouse, etc., \$205,000; and 173 others; aggregate loss, \$10,235,000.

Summary of train accidents in November: 112 collisions, 119 derailments, 8 others; total, 239. Killed: 37 employees, 2 passengers, 9 others; total, 40. Hurt: 121 employees, 46 passengers, 2 others; total, 169.

December 2. Shipwreck: British steamer Clan Drummond in the Bay of Biscay, 37 lives lost.

3-4. Violent gales on the middle and north Atlantic coasts, much damage on sea and land.

8. Explosion in coal mine at Wilkesbarre, Pa., 18 hurt.

5. Fire: factories burned, Vilna, Russia, 15 killed, 50 hurt, mostly women and girls.

10. Defective construction: sewer falls in at Barcelona, Spain, 18 killed.

18. Explosion: a shell bursts at Kronstadt, Russia, 9 soldiers killed, 10 hurt.

16. Shipwreck: British steamer Brinkburn, on the Scilly Islands.

17. Shipwreck: British steamers Pierremont and Ilios in collision in the North Sea; the Ilios sinks, 20 lives lost.

19. Fire: steamer Cape Charles burned and sunk near Norfolk, Va.

31. Accidental deaths in the city of New York during 1898, 2,317; sunstroke, 548.

Fires in December: New York, stores and offices, loss, \$720,000; Los Angeles, Cal., oil works, \$225,000; Terre Haute, Ind., various buildings, \$875,000; Burlington, Vt., lumber, etc., \$250,000; Minneapolis, Minn., grain lift, \$200,000; Shreveport, La., stores, etc., \$195,000; and 218 others; aggregate loss, \$12,712,100.

Summary of train accidents in December: 106 collisions, 107 derailments, 7 others; total, 220. Killed: 25 employees, 6 passengers, 1 other; total, 32. Hurt: 127 employees, 53 passengers, 3 others; total, 183.

DISCIPLES OF CHRIST. The table of statistics of the churches published in the "Independent" newspaper, New York, for Jan. 5, 1898, gives this body 5,922 ministers, 10,088 churches, and 1,085,615 members.

The forty-ninth annual Missionary Convention of the Disciples of Christ met at Chattanooga, Tenn., Oct. 18 to 20, beginning with the meeting of the Christian Women's Board of Missions. This society reported one of the most prosperous years in every department in its history. It had received \$74,369 and expended \$64,291, and had at the close of the year a surplus of \$10,078, against a deficiency in 1897. It supported 47 missionaries in the United States, India, Jamaica, and Mexico. Reports were made to the meeting concerning the development among children of interest in missions, orphanages in India, the mission in Jamaica, and "Bible chair work." The last concerned the establishment of chairs of Biblical instruction in certain universities, toward which \$10,000 each had been secured for chairs in the Universities of Michigan and Virginia. As relating to this subject addresses were made to the meeting by Prof. C. A. Young, on "Religious Instruction at State Universities," Prof. W. M. Forest on "Bible Chair Work at Ann Arbor," and Prof. C. W. Kent on "Bible Chair Work at Charlottesville."

The American Christian Missionary Society (Domestic) had received \$41,345, a gain of \$3,446 over the previous year. The 71 missionaries employed by it had visited 377 places, organized 53 new churches, and baptized 3,886 persons. The sum of \$25,192 had been raised for self-support by the stations served by these missionaries. In addition to the domestic missionary work done under the auspices of the national board, 401 missionaries employed by district and State societies had served 1,373 places, organized 294 churches and 203 Bible schools, and received 23,604 members, 15,500 of them by baptism. The report represented that the sentiment had grown during the year in favor of unifying the home-mission work of the national and the district and State societies by making the State boards auxiliary to the national board and having their work reported to the national convention. Forty-two State and district societies were doing home-mission work within their own boundaries. Contracts for co-operation had been made during the year with 29 of these boards. The action of the convention at Springfield, Ill., proposing such co-operation had been generally complied with, only one State board having refused to declare itself auxiliary to the General Board, and

declined the help of the American Christian Missionary Society. The reports on city evangelization gave details of very rapid growth, and even multiplication, of churches and members in the cities of Chicago, St. Louis, Des Moines, Washington, Kansas, Cleveland, Buffalo, Pittsburg, and San Francisco; and the board regarded the cities as being now the most promising field before the church.

The receipts of the Foreign Christian Missionary Society for the year had been \$130,925, being an increase of \$24,703 over the previous year, while the number of contributing churches, now 2,907, had increased 321. Fourteen missionaries had been sent out, including one sent from Australia to India and supported by the Australian churches. Two missionaries were exploring for a place to begin work in Africa, and would probably establish their first station on the Congo. Two houses had been erected, and money had been loaned to build two small chapels in Japan; aid had been granted for building a home for young women and a chapel in Nanking, for a house in Chu-Chu, a school and chapel and two houses in Shanghai, and a hospital and a home in Lu-Chu-Fu, China. A girl's school building and home were in course of erection at Hurda, India. Detailed reports were presented from missions in India, Japan, China, Sweden, Norway, Denmark, Turkey, and England.

The Board of Church Extension had received \$41,324, of which \$27,557 were classed as "new receipts," contributions, bequests, annuities, etc., and \$13,767 as collected on loans. The Extension fund amounted to \$167,243. From the beginning of the operations of the fund, \$66,987 had been collected on loans, \$25,115 of interest had been paid, and 389 churches had been aided, 104 of which had paid back their loans. Two hundred and eighty-five loans were outstanding. The secretary of the

society, visiting the churches, had secured "five-year pledges," aggregating for the year \$13,205.

A union between the American Christian Missionary Society and the Board of Negro Education and Evangelization went into operation on Jan. 1, 1898, whereby the Board of Negro Education and Evangelization is allotted 20 per cent. of the receipts after deducting special contributions and the expenses of both boards. A considerable gain in the receipts for negro evangelization had been made. The ordinary receipts for the year had been \$9,661; the real-estate fund was credited with \$4,079; and \$4,292 had been obtained through contributions for self-support, cash raised by evangelists, and a payment on a church debt; making the entire resources of the board \$48,032. A special effort, suggested by an offer of one fourth of the amount, on condition that the rest was raised, for building and furnishing a college edifice for the Southern Christian Institute at Lum, Ala., lacked only \$100 of completion.

The Board of Ministerial Relief had received \$41,156, and returned a permanent fund of \$9,375. Eighty persons, including 28 preachers and their wives, 22 widows, and 10 orphans, had been assisted, with the expenditure of \$4,156.

Reports were received from 4,633 Christian Endeavor Societies, an increase during the year of 646. The reports of the General Society place the Disciples third in rank among the denominations in their representation in the societies, only the Presbyterians and the Congregationalists exceeding them.

The aggregate amount of the contributions of the Disciples for missionary and benevolent objects in the year 1897-'98 was, according to a table presented to the convention, \$426,463.

DOMINION OF CANADA. See CANADA.

E

EAST AFRICA. The coast of Africa between Cape Guardafui and Cape Delgado, over which the Sultan of Zanzibar formerly exercised sovereign rights, has been divided, by agreement between Germany, Great Britain, and Italy, among those three powers. German East Africa is divided from the Portuguese possessions on the south by the river Rovuma; from British East Africa on the north by a conventional boundary running north-westward from the Umbe river to the shore of Victoria Nyanza, deflected so as to include Mount Kilimanjaro in the German territory, and continued west of the Victoria lake along 1° of south latitude to the boundary of the Congo Independent State, which forms the western limit of German East Africa. British East Africa, according to the agreement made with Italy, is divided from the protectorate that was asserted by the latter power over Abyssinia and adjacent territories by the Juba river up to 6° of north latitude, by that parallel as far as 35° of east longitude, and that meridian northward to the Blue Nile. The British sphere merges into the equatorial and Soudanese provinces formerly ruled by Egyptian governors and still nominally belonging to Egypt and under the suzerainty of Turkey. The Italian sphere embraces Somaliland, with the exception of the district reserved to Great Britain that fronts on the Gulf of Aden, extending from Wahadu to Bandar Ziyada in 49° of east longitude. A British protectorate has been established over the territory that was acquired by the British East Africa Company from the Sultan of Zanzibar, having an area of about

270,000 square miles and 5,000,000 inhabitants, and extended over Uganda, which has an area of 58,000 square miles and 1,000,000 inhabitants; and another protectorate has been imposed on the islands forming the sultanate of Zanzibar, with an area of 988 square miles and 210,000 inhabitants. Including the former Egyptian conquests, the sphere claimed by Great Britain embraces over 1,000,000 square miles. Italian Somaliland has an area of about 190,000 square miles and 400,000 inhabitants. British Somaliland, 68,000 square miles in extent, is attached to Aden, which is a dependency of the Indian Government. German East Africa has an estimated area of 380,000 square miles and a population supposed to reach 4,000,000.

Zanzibar.—The Seyyid, or Sultan, of Zanzibar, Hamud bin Mohamed bin Said, born in 1858, is still the nominal ruler, under the control of the British agent and consul general. The Sultan's dominions formerly included the whole of the German, British, and Italian spheres inland to the lakes, but they were gradually reduced by successive leases and cessions until they were restricted to the islands of Zanzibar and Pemba. A mixed administration under British control, with Sir L. Mathews as Prime Minister, has been in operation since October, 1891. Zanzibar, the seaport, which has about 30,000 inhabitants, was made a free port on Feb. 1, 1892, with restrictions and imposts as to firearms and powder, spirits, and kerosene. About 50 English traders, as many Germans, and some Greeks, Americans, Italians, and Frenchmen, reside there, but the bulk of the trade is carried on by British

Indians, who number 7,000. The island of Zanzibar has an area of 625 square miles and a population estimated at 150,000, while Pemba has an area of 363 square miles and 50,000 inhabitants. Justice among the natives is administered by the Kazis, from whose decisions any litigant can appeal to the Sultan. In all cases where a European is to be prosecuted civilly or criminally consular jurisdiction is in force under the capitulations. The British consul general has the right under the Sultan's decree of Dec. 16, 1892, to try all cases in which a British subject is plaintiff or complainant. The British consular court has exercised admiralty jurisdiction with reference to the slave trade, and also formerly had jurisdiction over slaves freed by order of the British agent before the legal status of predial slavery was abolished on April 6, 1897, since which date the relations between master and slave are no longer recognized by the tribunals. The act, administered as it is by Arab officials, has no effect on the actual status of the slaves, all of whom were already legally entitled to freedom, having been brought into the islands since the importation of slaves was forbidden in 1873. The new act does not interfere with domestic slavery or concubinage. Out of more than 60,000 slaves in Pemba not more than a score claimed their freedom during the first six months.

The revenue is derived mostly from taxes on cloves and other produce and from customs duties. The Sultan's allowance is now 120,000 rupees a year. The military and police forces number 900 men. The value of the imports in 1896 was £1,275,470, of which £385,537 came from India, £202,813 from German East Africa, £118,022 from Great Britain, £90,975 from the United States, £71,311 from the Netherlands, £64,597 from Germany, £45,422 from British East Africa, £42,021 from Madagascar and Mauritius, £33,433 from Benadir, £17,566 from France, and £69,848 from other countries. The total value of the exports in 1896 was £1,119,841. The re-exports of piece goods were £336,229; specie exports, £137,557; exports of cloves, £102,045; of ivory, £127,109; of rice, £59,738; of copra, £64,802; of rubber, £17,569; of gum copal, £16,060; of hides, £11,306; of tortoise shell, £8,160; of chillies, £5,484; of hippopotamus teeth, £6,285; of sim-sim, £5,519; of other articles, £261,873. There were 166 vessels entered from distant ports in 1896, of which 59, of 98,273 tons, were British, 60, of 88,483 tons, German, and 27, of 49,967 tons, French.

British East Africa.—The Imperial British East Africa Company, which in 1888 acquired by lease the territorial rights of the Sultan of Zanzibar over the coast from the Umba to Kipini, and subsequently the ports and islands north of the Tana, and occupied first the interior as far as the Victoria Nyanza, and then the kingdom of Uganda, west of the lake, whence expeditions were sent to conquer the regions beyond as far as the Semliki river and Lake Albert Edward, retired from Uganda in 1893, and the Imperial Government, continuing the occupation, proclaimed a protectorate over this territory on June 19, 1894. The rest of the company's territory was transferred to the imperial administration on June 30, 1895. Zanzibar had become a British protectorate in 1890. The British agent at Zanzibar, Sir Arthur H. Hardinge, directs the administration of the East Africa protectorate as commissioner under the control of the Foreign Office in London. The protectorate, which extends inland to the border of Uganda, is divided into the coast province, Ukamba, Tanaland, and Jubaland, and contains 2,500,000 inhabitants, including 13,500 East Indians and 390 Europeans and Eurasians. A submarine cable connects the coast

with Zanzibar. Of the railroad which the Imperial Government is building to Uganda 132 miles were completed and in operation in March, 1898. Parliament voted £3,000,000 for its construction in 1896, and of this £367,927 had been expended up to March 31, 1897. About 6,000 Indian coolies were employed on the work in 1898. The total cost will perhaps be three times as much as was estimated. The customs duties collected in 1897 amounted to 306,191 rupees. The total value of imports was 3,925,597 rupees, and of exports 1,172,026 rupees. The chief articles of export are ivory, rubber, cattle and goats, hides and horns, grain, and gum copal. Banians from India have nearly the whole of the external trade in their hands.

Uganda.—The Uganda protectorate was extended by proclamation in July, 1896, so as to include besides Uganda the country of Usoga on the east and all the countries to the west as far as the border of the Congo State, which is the meridian of 30° of east longitude, northward to the watershed between the Nile and Congo basins, which it follows up to the source of the Mbomu, the northernmost limit of the Congo State. The commissioner and consul general for the protectorate is E. J. L. Berkeley. The King of Uganda is an infant, the son of the late King Mwanga.

Over the mixed population of Uganda, consisting of heathens, Mohammedans, and Protestant and Roman Catholic converts, British rule has been established and upheld by the instrumentality of a disciplined force of black Mohammedan soldiers, Soudanese or Nubians from the valley of the Nile, originally composed of the remnants of Emin Pasha's Egyptian garrisons in the Soudan, enlisted in the service of the British East Africa Company when it first took possession of Uganda, and since replenished by freshly recruited Nubians from the Egyptian Soudan. These black soldiers each had a numerous family, at least three wives apiece, and a large number of dependents. They took the women away from the inhabitants of the country by force or by purchase, and they were allowed to pillage the regions to which the British conquests extended. When not engaged in subduing rebellion or conquering neighboring tribes they carried on agriculture on the choice lands assigned to them at their stations. By their operations the British protectorate was extended beyond Uganda proper over Ankole, Usogo, Kavirondo, Toro, Singo, Unyoro, and Kikuyu, although their original engagement only required them to serve within the borders of the country, following their former contracts with the Egyptian Government. The opportunities for enriching themselves led them to engage willingly in the expeditions to the south, west, and north of Uganda. The struggle with Kabarega and his warlike Wanyoro severely taxed their patience, and as a reward they were allowed greater freedom in the conquered territory. These people were never completely subjugated, and the wars and expeditions on this border were succeeded by others in different directions that strained to the utmost the strength and the discipline of the Uganda Rifles, as these Soudanese troops were called. In 1897 troubles came thick and fast in the protectorate. Revolt was smoldering among the native populations of the lake provinces. In the early spring a force was sent to protect the frontier against the mutinous Mohammedan troops of the Congo Free State, with which there was heavy fighting. A little later a revolt occurred among the Soudanese garrison at Mandi, on the borders of Kavirondo, and to put it down a body of Uganda Rifles was marched 250 miles round the north end of the lake. They were sent afterward against the Wasingo and other rebellious tribes. In the midst of the general

demoralization the King of Uganda, Mwanga, escaped from the custody of the English at Mengo and raised the standard of rebellion among his Mohammedan subjects in Budu, the southern part of Uganda, and was joined by the Wafranza, or Roman Catholic party. He was declared deposed after fleeing into German East Africa, and his son Chua, only two years old, was baptized as a Protestant and proclaimed king. The Soudanese troops had marched back again 300 miles from the eastern side of the lake to Budu, and, when the revolt there had been suppressed and the king driven into German territory, a call came for 300 of them to form the expedition of Major MacDonald, which was getting ready at Mpengs, on Baringo

means in a high state of discipline. These troops, who formed a fifth part of the entire military force of the Uganda protectorate, had no sooner left the lake district than a fresh revolt broke out in Budu. This was suppressed by the Soudanese garrison that had been left there, but Major Thruston, when he took command at Mengo, found a weakened force of discontented troops, wavering in their fidelity in the face of a country on the verge of rebellion, for a great part of the native population in the protectorate was known to be secretly hostile to the English and ready to turn against them if any reverse happened to their arms. Another uprising occurred in Budu during August, which was suppressed by the Soudanese garrison.



A ROYAL RESIDENCE IN UGANDA.

lake, 350 miles away, beyond the northern border of Uganda. This expedition had been planned long before for some mysterious political object, probably to dispute with the French the Bahr-el-Ghazal region and the left bank of the Nile, although the ostensible purpose was to explore the sources of the Juba river and to report on the boundary between the British sphere and the Italian sphere and Abyssinia.

Major Ternan, who was going on leave of absence to England, leaving Major Thruston in command of the forces in Uganda, accompanied the Soudanese troops that were to form the main force of Major MacDonald's expedition, but whom on their arrival at Baringo the latter officer reported to be much fatigued by their recent marches and counter-marches, deficient in native officers, and by no

Major MacDonald had brought from the coast a column about 1,000 strong, but the only trained fighting men were 30 Sikhs and 100 Swahilis. He had been allowed to organize his important mission in his own way, and had desired a force of these Soudanese warriors, whose commander he had once been. Consequently the Uganda authorities were directed to furnish the desired contingent from their scattered, insufficient, and overworked garrison, which numbered altogether not over 1,600. Like all English officers who had served in Uganda, Major MacDonald had a high opinion of the courage and efficiency of these Soudanese blacks and of their amenability to discipline. They, however, had no liking for him, for after a former revolt he had exiled their favorite leader, nor for the other officers, youngsters fresh from Europe, who could

not speak their language. When they arrived at Baringo in August they learned that in their exhausted physical condition they were to be sent on a distant expedition to unknown regions in the north, not knowing what provision would be made for their families, from whom they had long been separated already. They complained of their mis-

MacDonald arrived two days later to find the mutineers in possession of the fort.

On Oct. 19 they came out of the fort, laughing and saying that they did not want to fight, but the English opened fire. Major MacDonald defeated them in battle, killing or wounding a third of their number, and after they were driven back into the

fort they killed their English prisoners. The English built another fort alongside in order to prevent them from crossing the Nile and marching upon Mengo, whither the woman missionaries were brought from the different stations to be guarded in the secure fort at Kampala. The Soudanese garrison there, numbering 330 men, was immediately disarmed. The Waganda Mohammedans made common cause with the mutinous troops. About 850 Soudanese still remained loyal and were retained in their stations in the various provinces. The British besieged the fort at Lubwas, but were unable to attack for lack of ammunition until Nov. 24. On Dec. 11 there was another engagement.

Leaving the mutineers besieged by 500 Waganda at Lubwas, Major MacDonald went to Budu, where the Mohammedan Waganda had risen in revolt once more, King Mwanga having escaped from the confinement in which he had been kept by the German authorities, and having appeared again in Budu. The mutineers continued to defend themselves in the fort at Lubwas. In December some of them fled across the White Nile with the object of returning to their old homes in the Soudan. On Jan. 9 the main body, evading the vigilance of the English, escaped in a dhow across the Nile and marched



A NATIVE OF SOMALILAND.

erable rations and of their pay, which was one fourth as much as the soldiers from the coast received. On Sept. 15 they refused to go with the expedition, and when that was ordered to march northward on Sept. 23 they openly mutinied and started back homeward. They offered no violence to any one, and declared repeatedly that they did not wish to fight, but at the first station, while parleying with Mr. Jackson, the commissioner, they were fired on by order of one of Major MacDonald's officers, who came up, and they returned the fire, the men on both sides taking care not to hit. While Major MacDonald followed them by a parallel route, they continued their progress from station to station, joined by other Soudanese garrisons on the way, until on Oct. 16 they reached Lubwas, the fort commanding the Nile where it issues from the Victoria lake. The garrison there, responding to their appeal, mutinied and overpowered the English officers, Major Thruston, and two civilians. Major

slowly in the direction of the capital. They were no longer as formidable, having lost a third of their numbers and run short of ammunition. The danger was greater among the other Soudanese, with whom the rebels had communicated from Lubwas. Capt. Harrison with a force of 200 soldiers and 1,000 Waganda natives set out to intercept the mutineers. In February the mutineers were still at no great distance from Lubwas, to the north of the lake. The Government dispatched at once a regiment of 750 Indian troops from India, followed by 360 more, and set about reorganizing the military system of Uganda. Of the loyal Soudanese 700 were allowed to re-enlist, while the rest of the force was made up of 700 Suahilis and 400 Punjabi Mohammedans specially recruited for the service from India. Before the Indian troops arrived there was no force to maintain order and defend the frontiers except the Waganda and Wasoga spearmen, Major MacDonald's Suahilis, and the

loval Nubians. In Unyoro all the Soudanese were disarmed and sent to Kampala, where 160 Soudanese were held as prisoners and 800 at large. Mohammedan Waganda rebels assembled at Unga.

The Soudanese mutineers established themselves in a fort at Lake Ibrahim. The situation was cleared when Major MacDonald on Feb. 23 defeated them there, and Capt. Harrison on Feb. 25 routed the survivors at Lake Kioga, killing 60, wounding 100, and capturing 200 women. The remnant, having no ammunition, recrossed the Nile and took refuge in the Bukedi country. Mr. Berkeley, the commissioner, who had been absent in England during all the troubles, arrived in February. The Indian re-enforcements were sent to protect the country from the raids of Kabarega and the undisciplined forces of King Mwanga, who ravaged the western half of Uganda, burning churches and committing other outrages. An old wound in Uganda affairs was salved over when the British Government paid to the French the sum of £10,000 as compensation to the Jesuit missionaries for the property destroyed when their missions were broken up on the advent of the East Africa Company.

Causes for discontent among the Uganda Rifles were known to have been accumulating for some time, although there was no mention of these in the official reports. The total strength of this force was about 1,600 men, commanded by British officers. To be sent on frequent expeditions for the extension of British domination to the west and north of Uganda seemed to them to be a serious grievance and injustice, as they had not engaged to serve outside of the boundaries of the country, and they were extremely unwilling to leave their fields uncultivated and their wives and property exposed to risks. Their numerous families depended for support almost entirely upon the tillage of the lands allotted to them, which were the most fertile in the country. The pay that they received was merely nominal. This very economical military system, attended by a mischievous relaxation of discipline, broke down when the cantoned troops were drafted into Major MacDonald's expedition to distant and unknown regions.

German East Africa.—The German possessions are inhabited by tribes that have long pursued agriculture under the tuition of their Arab conquerors. They are Bantus mixed with other races and with a strong infusion of Asiatic blood in the coast districts. There were 635 Europeans, of whom 507 were Germans, in the coast region in 1896, and in the interior over 350. The imperial Governor is Major-Gen. Liebert. There are large banana plantations, and pulse and corn are also cultivated. In the experimental farms established by the Government and in plantations owned by Germans, coffee, tobacco, vanilla, cocoanuts, cacao, and caoutchouc are cultivated, and cattle rearing on an extensive scale is attempted. Cattle, sheep, and goats are also kept by the natives. A railroad has been built from Tanga to Pongwe, 10 miles, and is being carried inland to Karagwe. Telegraph lines have been erected along the coast, and a cable runs to Zanzibar. The budget for 1898 was 5,965,200 marks, of which the Imperial Government contributed 4,369,900 marks and 1,595,300 marks were raised in the colony. The value of the imports in 1895 was 7,608,000 marks, and of the exports 3,258,000 marks. The export of ivory was 1,423,000 marks; of caoutchouc, 772,000 marks; of sesame, 163,000 marks; of gum, 138,000 marks; of cocoanuts, 129,000 marks. The governor of German East Africa, Major-Gen. Liebert, in March, 1898, conducted a punitive expedition against the Wahehe, who had attacked a party of German foresters.

Somaliland.—The Italian protectorate began with the occupation of Obbia in 1889. In 1892 the Sultan of Zanzibar ceded the Somali coast to Italy southward from Obbia to the mouth of the Juba. The interior parts claimed by the Negus of Abyssinia were acknowledged to be his by the treaty of Adis Abeba in 1896. Italy retained a strip 180 miles wide on the coast and the district of Logh on the Juba river. The Italian Benadir Company received in 1896 a charter granting commercial and administrative rights in the country for fifty years.

Obok and the French Somali coast, with dependencies, have an area of 8,640 square miles and a native population of 30,000. The local revenue is about 30,000 francs, and the main cost is borne by the French treasury, which contributed 614,807 francs in 1898.

The coast between Lahadur and Bandar Ziyada was declared a British protectorate in 1884. It is inhabited by nomadic tribes. At the posts of Zaila, Berbera, and Bulhar garrisons of Indian troops are stationed. The revenue in 1897 was 318,780 rupees, and expenditure 152,855 rupees for civil and 82,006 rupees for military purposes. The imports of Berbera, Bulhar, and Karam were 2,355,172 rupees, and exports 2,142,660 rupees in value; the imports of Zaila were 3,512,867 rupees, and exports 4,665,310 rupees. The principal exports are hides and skins, ostrich feathers, sheep and cattle, and gum. An area of 7,000 square miles formerly included in the protectorate was conceded to Abyssinia in an agreement made in 1897.

ECUADOR, a republic in South America. The Senate numbers 30 members, two from each province, elected for four years, one half retiring every two years. The House of Representatives has 38 members, elected for two years by all adult citizens who can read and write. The President, whose term is four years, is Gen. Eloy Alfaro, elected in January, 1897. The Vice-President is Manuel B. Cueva. The Cabinet in the beginning of 1898 was composed as follows: Interior, Police, and Public Charity, Dr. R. Gomez; Foreign Affairs, Justice, Public Instruction, and Immigration, B. Alban Mestanza; War and Marine, Gen. N. Avellano; Finance and Public Works, R. Valdivieso.

Area and Population.—The area of the republic is about 120,000 square miles, with an estimated population of 1,271,861. The Gallapagos, or Tortoise, Islands, which have an area of 2,400 square miles, belong to Ecuador.

Finances.—The ordinary revenue in 1896 amounted to 5,128,620 sucres, which was supplemented by loans and bankers' advances to the amount of 3,730,740 sucres, making the total revenue 8,859,360 sucres, while the expenditure was 8,779,520 sucres. For 1897 the revenue was estimated at 9,093,551 sucres, and the expenditure at 11,005,141 sucres. The foreign debt, consisting of a part of the old debt of Colombia assumed by Ecuador after the secession in 1830, is the subject of negotiations between the Government and the bondholders. There were £693,160 sterling of bonds outstanding in 1897. The internal debt in 1896 amounted to 7,500,000 sucres.

Commerce.—The chief article of export is cacao, of which 15,327 tons were received at Guayaquil in 1896. The total value of the imports entering through this port in 1895 was 8,520,000 sucres, and of exports shipped from there 11,562,000 sucres.

The number of vessels entered at this, the principal port, in 1896 was 844, of 277,576 tons, of which 450, of 20,643 tons, were sailing vessels and 394, of 256,933 tons, were steam vessels; total number cleared, 871, of 274,350 tons, of which 469, of 17,297 tons, were sailing vessels and 402, of 257,053 tons, steam vessels.



QUITO, ECUADOR, 9,250 FEET ABOVE SEA-LEVEL. MOUNT PICHINCHA IN THE BACKGROUND.

Communications.—The railroad, 58 miles long, connecting Guayaquil with Chimbo is to be continued by the Government to Sibambe. The length of telegraphs is 1,242 miles.

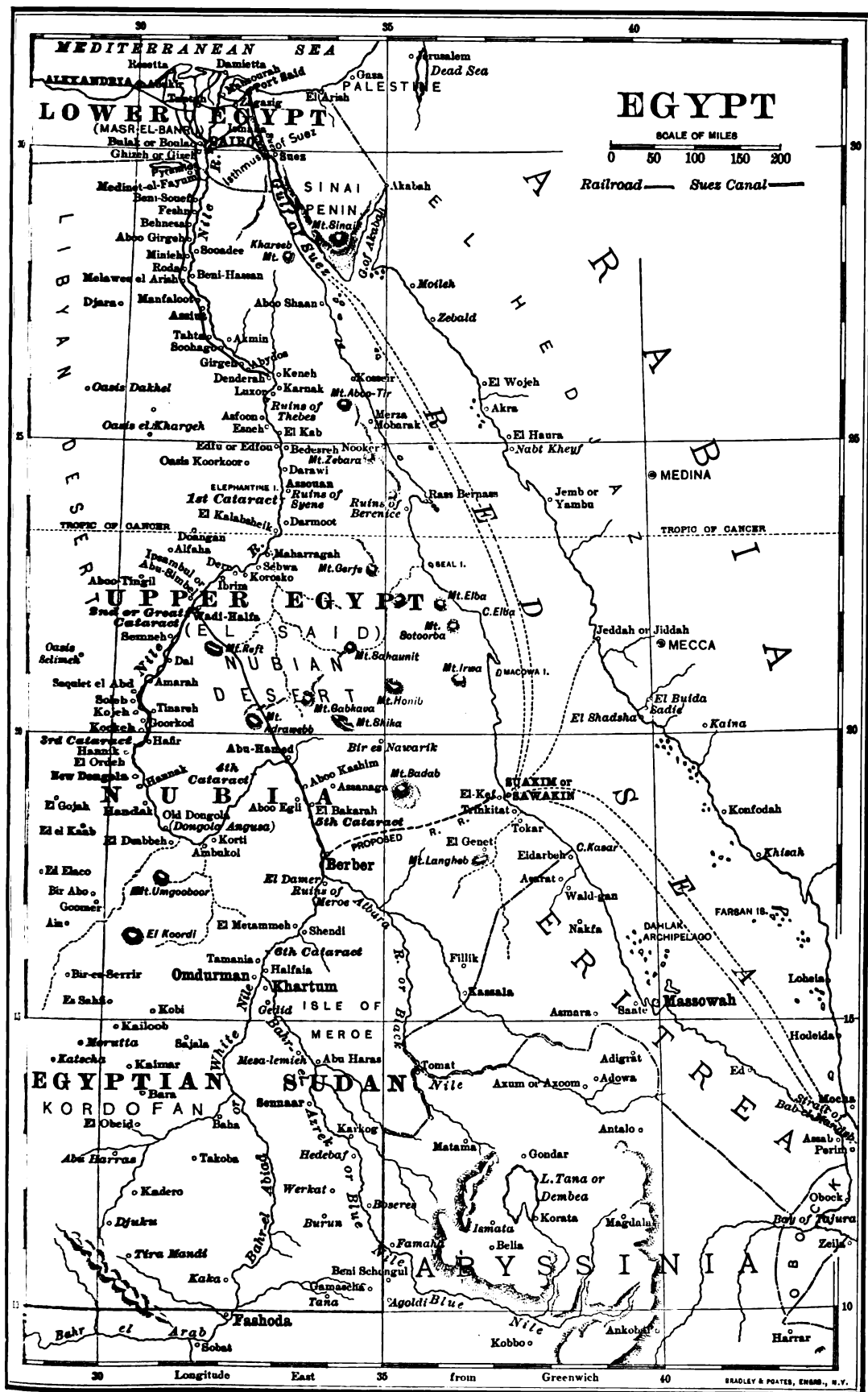
EGYPT, a principality in northern Africa, tributary to Turkey. The government is an absolute monarchy of the Mohammedan type, though the throne passes by the European law of primogeniture, and the Khedive, or Viceroy, is advised by a Council of Ministers. The reigning Khedive is Abbas Hilmi, born July 14, 1874, who succeeded to the throne on the death of his father, Mehemet Tewfik, Jan. 7, 1892. Since the intervention of Great Britain for the suppression of the military revolt of 1882 the country has been occupied by a British army, and since Jan. 18, 1883, an English financial adviser, who has a seat in the Cabinet, exercises the right to veto any financial measure, and a dominating influence in all important acts of government. The events that took place in 1881 and 1882, consequent upon the bankruptcy of the Egyptian treasury and the abdication of the Khedive Ismail Pasha, led to a conference of the powers in Constantinople, where the principal powers signed a protocol by which they bound themselves to seek no territorial advantage and the concession of no exclusive privilege. But England, owing to the progress of the insurrection in Egypt, intervened by force of arms, and the conference then dissolved. Since then successive Prime Ministers of Great Britain have given assurances that England would evacuate Egypt as soon as Egypt should be able to maintain a firm and orderly government.

The Cabinet of the Khedive, constituted on April 16, 1894, which was in office in the beginning of 1898, was composed of the following ministers:

President of the Council and Minister of the Interior, Mustapha Fehmi Pasha; Minister of War and Marine, Mohammed Abani Pasha; Minister of Public Works and of Public Instruction, Hussein Fakhry Pasha; Minister of Foreign Affairs, Butros Ghali Pasha; Minister of Finance, Ahmet Mazlum Pasha; Minister of Justice, Ibrahim Fuad Pasha.

Area and Population.—The area and population of the governments and *mudiries* of Egypt, according to the census taken in June, 1897, are given in the following table:

DIVISIONS.	Square miles.	Sedentary.	Nomad.	Foreigners.	Total population.
Lower Egypt:					
Cairo.....	6	533,336	1,345	35,381	570,062
Alexandria.....	70	268,669	4,964	43,113	319,766
Damietta.....	4	43,512		239	43,751
Behera.....	932	535,021	94,953	1,251	631,225
Charkieh.....	905	661,658	85,015	2,567	749,180
Dakalieh.....	931	719,676	14,624	2,408	736,708
Gharbieh.....	2,340	1,246,752	47,463	3,441	1,297,656
Kaloubieh.....	352	335,470	35,402	593	371,465
Menoufieh.....	639	846,512	16,666	1,028	864,206
Oasis of Siwa.....	15		5,000		5,000
Isthmus and Port					
Said.....	8	36,729		13,450	50,179
Suez.....	2	15,439	6,757	2,774	24,970
El Arish.....	1	4,080	12,910	1	16,991
Upper Egypt:					
Beni-Souef.....	501	282,513	31,645	296	314,454
Fayum.....	493	312,757	57,947	302	371,006
Guizeh.....	370	368,472	32,736	426	401,634
Minieh.....	772	511,746	36,217	669	548,632
Assiout.....	840	752,233	30,048	439	782,720
Guerga.....	631	677,151	10,649	211	688,011
Kena.....	544	679,517	31,325	615	711,457
Dongola.....		53,037	3,389		56,426
Suakin.....		15,378		335	15,713
Nubia.....		216,662	23,298	432	240,392
Total.....		9,116,325	582,263	112,591	9,811,544



The area of Egypt prior to the evacuation of the Soudan and the equatorial province was estimated at 1,406,250 square miles, and the population at 16,352,000. The area at present under Egyptian rule is about 385,000 square miles, not including the newly organized provinces of Dongola, Nubia, and Suakin, and that of the cultivated districts in the Nile valley and delta is 12,976 square miles. Of the total population given above, 4,947,905 are males and 4,786,555 females. The foreigners, numbering 112,526 altogether, comprised 38,175 Greeks, 24,467 Italians, 19,557 British, 14,155 French, 7,117 Austro-Hungarians, 3,193 Russians, 1,277 Germans, 1,301 Persians, and 3,284 others. The population of Cairo, the capital, in 1897, was 570,062; of Alexandria, 319,706.

Finances.—The budget for 1898 makes the total revenue £ E. 10,440,000, of which the land tax produces £ E. 4,872,700, other indirect taxes £ E. 137,300, customs £ E. 850,000, tobacco £ E. 1,000,000, *octroi* duties £ E. 204,000, salt duty £ E. 180,000, fisheries £ E. 75,000, navigation dues £ E. 70,000, stamps and registration £ E. 38,000, other duties £ E. 30,000, railroads £ E. 1,800,000, telegraphs £ E. 47,000, the port of Alexandria £ E. 130,000, other ports £ E. 2,000, the post office and packet service £ E. 191,000, lighthouse dues £ E. 68,000, assay office £ E. 6,000, law courts £ E. 426,000, various ministries £ E. 20,000, exemption from military service £ E. 100,000, interest on deposits £ E. 30,000, Government property £ E. 90,000, Suakin £ E. 13,000, deductions from salaries for pension fund £ E. 60,000. The expenditures are £ E. 253,561 for the Khedive's civil list and appanages, £ E. 3,972 for the Council of Ministers, £ E. 8,270 for the Legislative Council, £ E. 11,116 for the Ministry of Foreign Affairs, £ E. 86,056 for the Ministry of Finance, £ E. 105,220 for the Ministry of Public Instruction, £ E. 391,281 for the Ministry of the Interior, £ E. 391,973 for the Ministry of Justice, £ E. 630,069 for the Ministry of Public Works, £ E. 107,458 for the general expenses of the ministries, £ E. 319,022 for the collection of provincial revenues, £ E. 75,752 for collection of customs duties, £ E. 88,076 for the coast guard, £ E. 34,210 for collection of *octrois*, £ E. 47,068 for collection of the salt duty, £ E. 1,400 for fisheries, £ E. 3,130 for collection of navigation dues, £ E. 907,138 for operation of railroads, £ E. 42,000 for telegraphs, £ E. 28,000 for the port of Alexandria, £ E. 3,899 for other ports, £ E. 99,525 for the post office, £ E. 79,450 for the khedivial packet boats, £ E. 27,192 for light-houses, £ E. 2,597 for the assay office, £ E. 439,570 for the Ministry of War, £ E. 84,825 for the army of occupation, £ E. 120,517 for the Government of Suakin, £ E. 213,000 for the Soudan, £ E. 439,000 for pensions, £ E. 665,041 for the Turkish tribute, £ E. 34,000 for the Daira Khassa, £ E. 150,000 for the Moukabala, £ E. 28,457 for interest and exchange, £ E. 100,000 for the domains deficit, £ E. 34,000 for expenses of the Caisse de la Dette, £ E. 307,125 for interest and amortization of the guaranteed loan, £ E. 1,003,056 for the preference debt, £ E. 2,182,906 for the unified debt, £ E. 250,000 for the suppression of the *corvée*, and £ E. 32,000 for unforeseen expenses, making a total of £ E. 9,831,032, leaving £ E. 265,037 of economies from the conversion of privileged debt, and £ E. 343,931 as the Government's share of surplus receipts.

The cost of the Soudan expedition from March 31, 1896, to March 31, 1898, was £ E. 1,881,805. To balance the budget the sum of £ E. 100,000 for works connected with the proposed storage of Nile water for summer irrigation was struck out, and improvements in every department of the civil administration was postponed, as well as all expenditure for developing the resources of the country, notwith-

standing an estimated increase of £310,000 sterling in the revenue, derived mostly from customs, tobacco, railroads, and justice. The total war expenditure for the year was estimated at £702,000. To cover the extraordinary expenditure for the Soudan incurred in the previous two years £1,218,000 sterling were taken from the special reserve fund. The cost of the war and the administration of the Soudan up to March 31, 1898, making no estimate for a further advance from Dongola, was placed at £ E. 1,881,800. Of this, £ E. 750,000 was expended on railroads and telegraphs. The limit of administrative expenditure, fixed at £6,368,000 sterling by the international convention of 1885, has from time to time been raised until it was £6,237,000 in 1896.

The total amount of the debt at the end of 1896 was £104,413,740 sterling, not including the Moukabala, or internal debt, which will be extinguished by the payment of a fixed annuity equal to £154,000 until 1930. The guaranteed loan, bearing 3 per cent. interest, amounted to £8,628,600, repayable by a fixed annuity of £315,000; the privileged debt, amounting to £29,393,580, pays 3½ per cent. interest, requiring £1,028,775 for 1898; the unified debt, paying 4 per cent., amounted to £55,971,960, requiring £2,238,378; the Daira Sanieh loan, paying 4 per cent., is £6,631,600, the annual charge being £257,260, besides the annual payment of £34,871 to the loan commissioners; and the domains loan, bearing 4½ per cent. interest, amounted to £3,788,000, requiring an annual payment of £149,124. The revenue from the Daira estate and the domains in 1896 was £ E. 10,693,000, and the expenditure £ E. 10,377,000, leaving a surplus of £ E. 316,000. The economies from conversion of debts amounted to £ E. 2,229,726 up to the end of 1896, the general reserve fund to £ E. 3,040,997, and the special reserve fund to £ E. 408,218; total reserves, £ E. 5,678,941. At the end of October, 1898, the amount held by the commissioners of the debt was £ E. 6,148,844. The domains estate, owing to the fall in the price of cotton, has not produced enough to pay the interest on the mortgage debt. The deficit in 1897 was £102,000. The Daira Sanieh properties, consisting of 256,000 acres of excellent land, 9 sugar mills, and 375 miles of railroad, formerly belonging to the Khedive and the khedivial family, were in June, 1898, sold to a syndicate of English, French, and Egyptian capitalists for £6,400,000 sterling, the exact amount of the Daira debt, which will be paid off in 1905. The buyers will gradually take over the property from the Daira administration, and they are bound to resell it within seven years, and to pay to the Government half the net profits, which must not be less than 20 per cent. The khedivial fleet of steamers, together with docks and warehouses at Alexandria and Suez, were sold in January to a British syndicate for £150,000, only a fraction of their cost and of the price that could have been obtained by public tender. This transaction excited the indignation of Frenchmen interested in Egypt. On Dec. 31, 1897, the funded debt had been reduced to £98,107,000. There was a debt of £ E. 780,000 due to the British Government, being the sum advanced to meet the expenses of the Dongola expedition. The Government has contracted for the completion of the Nile reservoir at Assouan, at a total cost of £2,000,000, before July 1, 1903. The dam, 6,000 feet long, will raise the level of the water 46 feet, thus storing 1,065,000,000 cubic metres, which will be released to supplement the supply in the river between April and September. A smaller dam at Assiout raises the river level during summer in order to increase the distributing power of the canals, acting on the same principle as the great barrage north of Cairo. The commissioners of the public debt have released over £500,-

000 of their accumulated funds for the improvement of the barrage and for drainage works. The Government proposed in 1898 to apply during ten years the annual sum of £ E. 216,000, being the interest from the funds in the general reserve and of the economies from debt conversions, to the reduction of the land tax on lands taxed at more than one third of their rental value, of which lands there are 1,000,000 acres.

The Army.—The Egyptian army consists of 18,000 troops, commanded by about 100 Englishmen, with Major-Gen. Sir Herbert Kitchener as sirdar, or commander in chief. The British army of occupation in 1897 numbered 4,711 officers and men.

Commerce.—The total value of the imports in 1896 was £ E. 9,828,604, and of exports £ E. 13,232,108, exclusive of specie, of which the imports were £ E. 3,720,425 and the exports £ E. 1,826,160. The imports of cotton goods were £ E. 1,679,951 in value; silk, linen, woolen, and other fabrics, £ E. 1,003,066; coal, £ E. 388,935; hosiery and clothing, £ E. 425,984; timber, £ E. 424,357; coffee, £ E. 297,601; wine, beer, and spirits, £ E. 349,883; tobacco and cigars, £ E. 511,508; petroleum and oils, £ E. 240,035; machinery, £ E. 417,817; iron and steel goods, £ E. 456,599; indigo, £ E. 169,630; fresh and preserved fruits, £ E. 216,557; live animals, £ E. 145,529; wheat and flour, £ E. 553,401; rice, £ E. 126,299; refined sugar, £ E. 25,131. The exports of raw cotton were of the value of £ E. 9,986,861; cotton seed, £ E. 1,226,870; sugar, £ E. 765,172; beans, £ E. 413,415; onions, £ E. 128,740; hides and skins, £ E. 92,558; wool, £ E. 63,122; wheat, £ E. 53,818; lentils, £ E. 7,264; corn, £ E. 3,614; gum arabic, £ E. 1,794. The United States and India have become large consumers of Egyptian cotton, taking 55,235 bales in 1897. The increase in exports of cane sugar to the United States has been remarkable, the shipments in 1897 amounting to 52,300 tons, three fourths of the total exports.

The foreign trade in 1896 was divided among different countries as follows:

COUNTRIES.	Imports.	Exports.
Great Britain	£ E. 3,065,880	£ E. 6,972,681
France and Algeria	1,824,495	1,215,978
Turkey	1,948,814	885,561
Russia	371,162	1,473,060
America	79,497	927,874
Austria-Hungary	701,864	610,981
Italy	333,172	370,905
Germany	281,625	325,928
British colonies in the East	523,668	66,674
Belgium	456,048	25,972
Spain .....	.....	293,473
British Mediterranean colonies	109,051	8,926
Greece	83,853	15,326
China and the East	78,124	.....
Persia	58,914	.....
Morocco	30,321	.....
Other countries	349,945	534,800
Total	£ E. 9,828,604	£ E. 13,232,108

Navigation.—The number of vessels entered at the port of Alexandria in 1896 was 2,132, of 2,123,591 tons. Of these, 610, of 934,450 tons, were British; 145, of 289,996 tons, French; 142, of 249,150 tons, Austrian; 838, of 223,515 tons, Turkish; 80, of 170,505 tons, Russian; 85, of 123,399 tons, Italian; 168, of 54,673 tons, Greek; 30, of 46,070 tons, German; 18, of 26,450 tons, Swedish and Norwegian; and 16, of 5,743 tons, of other nationalities. The number cleared was 2,105, of 2,094,684 tons.

Communications.—There were 1,215 miles of railroads in Egypt on Jan. 1, 1897, and of these 1,143 miles belonged to the Government. Of the total mileage, which does not include the new military railroad into the Soudan nor the railroads on the Daira Sanieh estates, 825 miles were in the

delta and 390 miles in Upper Egypt. There were 64 miles of private and 226 miles of Government railroads under construction, and concessions had been granted for 230 miles of narrow-gauge railroads in the delta. The number of passengers carried on the Government lines in 1896 was 9,854,000; tons of freight, 2,498,000. The gross revenue was £ E. 1,820,970, and the working expenses £ E. 787,930; net receipts, £ E. 1,033,000.

The length of telegraph lines belonging to the Government on Jan. 1, 1897, was 2,269 miles, with 8,450 miles of wire. The number of dispatches in 1896 was 2,392,036.

The number of letters and postal cards that passed through the post office in 1896 was 15,310,000, of which 10,905,000 were internal and 4,405,000 foreign; newspapers, etc., 8,800,000, of which 5,605,000 were internal and 3,195,000 foreign; post-office orders and remittances, 494,250, of the value of £ E. 16,150,000.

The Suez Canal.—The number of vessels that passed through the canal in 1896 was 3,409, of 12,039,859 tons, of which 2,162, of 8,057,706 tons, were British; 322, of 1,120,580 tons, were German; 218, of 819,919 tons, were French; 230, of 594,179 tons, were Italian; 200, of 520,994 tons, were Dutch; 62, of 267,769 tons, were Spanish; 71, of 233,922 tons, were Austro-Hungarian; 47, of 209,509 tons, were Russian; 39, of 98,949 tons, were Norwegian; 37, of 58,357 tons, were Turkish; 10, of 42,695 tons, were Japanese; and 11, of 15,279 tons, were Portuguese, Egyptian, etc. The number of passengers was 308,241. The gross receipts were £3,182,800 sterling. The loan and share capital is 460,569,276 francs, besides which 151,174,307 francs of earnings have been applied to improvements. The net profits in 1896 were 42,283,380 francs. During 1897 the number of vessels that passed through was 2,986, of which 2,103 were merchant ships, 727 mail steamers, 31 vessels in ballast, 112 war vessels and military transports, and 18 yachts, dredgers, and propellers. In nationality 1,905 were British, 325 German, 206 Dutch, 202 French, 78 Austrian, 71 Italian, 48 Spanish, 48 Norwegian, 44 Russian, 36 Japanese, 7 Turkish, 3 Chinese, 3 Egyptian, 3 American, 2 Danish, 2 Siamese, 1 Mexican, 1 Portuguese, and 1 Swedish. The total receipts were 75,607,029 francs, and the total expenditure 86,291,408. The plague and famine in India and the drought in Australia affected the traffic so injuriously that the reserve had to be drawn upon to pay the diminished dividend of 90 francs. The reserve fund was still 2,679,837 francs at the end of 1897. The average time of transit has been reduced to fifteen hours thirty-six minutes, notwithstanding the continuous increase in the size of vessels.

The Mixed Tribunals.—The powers exercised by the mixed tribunals, first conferred in 1876 and renewed for the last time in 1894, would lapse in February, 1899, unless previously renewed. The British have desired, since the decision against the appropriation of the general reserve fund for the Soudan expedition, to curtail the jurisdiction of these international courts. In 1898 the Government submitted to the powers a proposal to modify the organic law of the mixed tribunals by withdrawing from their jurisdiction cases of mixed interest unless the parties are of different nationalities; by allowing complaints and pleadings in English as well as in Arabic, French, and Italian; by transferring to the jurisdiction of the native courts all real-estate cases between natives; by allowing no action to lie against the Government for measures taken by it in the general interest of Egypt or for any act connected with the execution or application of the laws and regulations of the public administration; and by permitting only the Caisse de la Dette collectively,

not individual members, to bring suit against the Government. If France and Russia would not accede to the British proposal the English Government threatened to allow the mixed tribunals to cease by efflux of time on the expiration of the present convention in February, 1899.

The Nile Campaign.—Although the Soudanese blacks of the Egyptian army had shown themselves to be splendid soldiers under British leadership and the *fellahin* had exhibited admirable coolness and discipline under fire, the British military and political authorities were determined that the credit of smashing the Mahdi at Khartoum should be earned by British troops. Hence, before beginning the advance from Berber, the sirdar, Sir Herbert Kitchener, asked for the support of European regiments, of which three were dispatched in January, 1898. The dervishes, whose advanced post was at Metemma, halfway between Berber and Khartoum, were said to be preparing for an attack upon the Egyptian position. The railway was already completed across the Bayuda desert to Abu Hamed and up the river for 20 miles beyond. The rapid construction of the Soudan Railroad by Lieut. E. P. C. Girouard and his staff of young engineer officers was the most remarkable achievement in the Nile operations and the most essential for their success.

Three Egyptian gunboats patrolled the river south of Berber, and there was a fortified camp held by the Khedive's Egyptian troops at El Damer, just above the junction of the Atbara and the Nile. The Jaalin and other river tribes were eager to join the Egyptians or to aid them whenever they could feel safe from the vengeance of their Baggara masters. The reconquered province of Dongola was recovering from the effects of dervish misrule, and the population had increased in a year from 58,000, of whom 40,000 were women and children, to 77,000.

In the eastern Soudan the dervish power crumbled away from the hour when the Anglo-Egyptian military authorities took over Kassala from the Italians. The Emir Abdelrahim had 300 riflemen at El Fasher and a force of infantry and cavalry at Osobri. From these posts he had constantly threatened Kassala. Col. Parsons, before he received the transfer of Kassala from Col. Count Sanminiatielli on Christmas Day, enrolled in the Egyptian army 450 of the Soudanese regulars trained by the Italians and the band of irregulars, consisting of 160 Hadendoa and Beni Amer Arabs, who once had fought for the Mahdi. The easy discipline of the Italians had developed the fighting qualities of the Arab warriors far better than the stern methods employed by British officers. The British won the gratitude of the people of Kassala by sending for their exiled spiritual chief, Sidi Ali, the head of the Morgani family, directly descended from the Prophet. Col. Parsons flattered the martial pride of his new recruits by sending them out under their own sheiks to drive the dervishes out of El Fasher and Osobri. They set out on Dec. 20, 1897, before the arrival of the Egyptian garrison of 900 *fellahin* and before the formal surrender of Kassala. The native levies under the Chief Aroda, 400 strong, captured and burned El Fasher without difficulty, but Osobri stood out for a week, and finally the dervishes cut their way through Asabalas's 160 men, both sides fighting desperately, and escaped to Kedaref with a loss of half their force of 100 fighting men, the brave Baggara Emir having persistently refused to accept quarter from infidels.

The army that was got ready in January for operations on the Nile consisted of 18,000 Egyptians, 3 British battalions, to be increased later as necessity should require, and the Nile flotilla of

gunboats. Arab irregulars held various posts in the desert between Suakin and Berber, where the route was open since the withdrawal of Osman Digna from that part of the eastern Soudan in the previous autumn. The Arab levies of Col. Parsons extended their operations to Nugatta, Gos Rejeb, and Aderama, clearing of dervishes the whole country east of the Atbara, and also westward across the desert to Es Sofiyeh, nearly halfway to Khartoum, and southward to Toinat and Kedaref. The Khalifa was fast drawing his forces together to make his final stand at Omdurman. At Metemma the Emir Mahmud had a powerful host, which was necessary not only to oppose the Egyptian advance, but also to overawe the riverain and desert tribes and prevent them from joining the invaders. At the sixth cataract Shabluka was well fortified. South of that there was no protection up to the forts of Omdurman, where the Khalifa had elected to fight his great battle, having seen in a vision the destruction of the entire Anglo-Egyptian army by the faithful and a terrible slaughter of the Turks, as the Egyptians are called by the Arabs of the Soudan, whom they once ground down. Now the Egyptians were generally welcomed as deliverers. Prisoners taken in skirmishes and deserters who kept coming into the Egyptian lines were enlisted for service with the Soudanese battalions. After the advanced guard of the Egyptian field army had arrived at Berber, Mahmud, the dervish general, on Feb. 25 took his main force, under a harassing attack of the Egyptian gunboats, over the river to Shendy, on the right bank. There he was joined by Osman Digna and his cavalry, and when detachments of dervishes reconnoitered in the direction of El Damer the Anglo-Egyptians, who held a strong line from the Atbara to the Nile, sent forward Major-Gen. William Forbes Gatacre's British brigade to head off the expected attack. This brigade in its march to the Atbara covered 140 miles in six days, for one of which it was halted. On March 12 the dervishes moved northward out of Shendy in force. Numbering 18,941 fighting men, they marched up the Nile to Aliab, and then crossed the desert to the Atbara, reaching on March 20 a point between Nakheila and Fahada. The sirdar dispatched a force from Berber, consisting of the British brigade, the Egyptian division commanded by Major-Gen. Archibald Hunter, 3 batteries of artillery under Col. Long, and 8 squadrons of Egyptian cavalry, the total strength being 13,000 men, with 24 field guns and 12 Maxims. This force concentrated at Kunur on March 16, and on March 20, being joined by another battery and a brigade of Egyptians, advanced to Ras el Hudi, at the bend of the Atbara. The cavalry of the two armies came in contact with each other on the following day. Finding the Anglo-Egyptians in great force, Mahmud decided to intrench his position and await supplies from the Khalifa. Gen. Kitchener thereupon ordered the gunboats to take the battalion at Atbara fort and the Jaalin levies up to Shendy, which was taken without the loss of a life on the Egyptian side. The dervishes, who were taken by surprise, fled after their leader was killed, leaving Mahmud's reserve stores and cattle to be taken by the enemy, with 650 prisoners, mostly Jaalin women and children, kept as hostages by the Baggaras. Of these fierce warriors, who give no quarter and take none, 170 were killed. The batteries and forts at Shendy were destroyed.

After Gen. Hunter had made a reconnoissance in force on March 30 and found Mahmud not disposed to stir from his intrenched camp, Gen. Kitchener ordered an advance of 5 miles to Abadar, which was carried out on April 4. Another reconnoissance drew out the dervish horsemen, who attempted

to surround the Egyptians, and were checked by the Maxim. The sirdar now determined to attack Mahmud's position, and on April 6 his army moved forward to Umbadia, and thence on the following evening to Mutrus. After resting till after midnight, the troops marched through the desert, and before daylight on April 8 formed in line of battle in front of the dervish *dem*, or fort, consisting of a large irregular inclosure, palisaded in parts with innumerable cross trenches, casemates, and straw huts, besides 10 palisaded gun emplacements, the whole surrounded by a strong *zariba*, or fence of camel thorn. The action began with a bombardment from 12 guns, strongly posted on commanding ground so as to deliver a cross fire into the enemy's intrenchments. The dervish cavalry, as they came out, were driven back by a heavy Maxim fire. After shelling the camp for an hour and a half the Egyptian line advanced, and while case shot and

After the battle of the Atbara the Anglo-Egyptian troops returned to their quarters on the Nile. The railroad was now completed to Genenitti, south of the fifth cataract, 113 miles from Abu Hamed and 346 from Wady Halfa. Beyond Genenitti there is open water to the mouth of the Atbara, where a passage for steamers was scoured out by damming one of the two channels. The purpose of Mahmud's march to the Atbara was to turn the Egyptian position in the fork of the two rivers in order to attack Berber and cut the enemy's line of communication by destroying the railroad at Genenitti. The caravan route from Suakin to Berber was declared closed. From Suakin in the direction of Kassala a railroad was built to Trinkitat. Telegraphs were built from Suakin to Berber and to Kassala. No further advance of the Egyptian army was contemplated until the Nile should rise in the autumn and allow gunboats to proceed all the way



THE NILE AT KHARTOUM.

Maxim fire cleared the way and rockets set fire to the thatched buildings, the infantry tore away the *zariba*, rushed the first line of trenches and stockades, and cleared successively the labyrinth of trenches after each had been raked by the Maxims. At the end of an hour the troops had passed through the camp, and formed in line at the river's edge, whence they mowed down the fleeing dervishes struggling through the shallows. Mahmud was taken prisoner, and all but three of his important emirs were killed, excepting Osman Digna, who ran away with his horsemen before the battle was half over. In the trenches were found men chained together or tied to posts by the Baggaras to prevent their escape and compel them to fight, and others held by forked sticks fixed around their necks. More than 3,000 dervishes were slain and 2,000 made prisoners, while the losses of the British brigade were only 2 officers and 22 men killed and 10 officers and 82 men wounded, and among the Egyptian troops, which bore the brunt of the fighting, 57 killed and 5 British and 16 native officers and 365 men wounded.

The dervishes were in a half-starved condition, and before and during the battle large numbers went over to the enemy. The remnants of their army dispersed toward Gedaref and Abu Delek.

to Khartoum. An advanced post was established at Shendy. Three large new gunboats were put together on the upper Nile. Gen. Gatacre's brigade of 3,000 men went into summer quarters at Darnali, near Berber. The Egyptian forces, distributed between the Atbara and Abu Hamed, consisted of 9,000 infantry, 4 batteries of artillery, and 900 cavalry and camel corps. The dervishes retired from Shabluka to El Boga, inland from the river. The Khalifa extended his line of defense at Omdurman 10 miles northward to Kerreri, a defensible position amid hills.

For the attack on the Khalifa's stronghold 40-pounders were added to the artillery equipment, and new breach-loading howitzers hurling 50-pound shells filled with high explosives, bursting by percussion on striking the earth or crashing through mud walls, and dealing death and destruction within a radius of 40 yards.

The advance upon Khartoum took place after the rains had swollen the Nile and subsided from the ground, leaving it dry enough for marching. Every movement was accomplished on the date scheduled for it in advance by Gen. Kitchener. He concentrated his forces at Wady Hamed, at the foot of the sixth cataract, about 60 miles north of Omdurman, on Aug. 22. The army now consisted of 6 brigades,

2 British and 4 composed of native soldiers under British and native officers, the whole body numbering 25,000 men, of whom 10,000 were British troops commanded by Gen. Gatacre and 15,000 were Egyptians under Gen. Hunter. On Sept. 1 the Anglo-Egyptian forces advanced to a point near Kerreri, driving in the enemy's outposts without loss to themselves. There they halted while the gunboats, under Commander Keppel, having in tow 6 great howitzers on barges, went up the Nile beyond Nasri island, clearing the right bank of dervishes and demolishing the forts on Juti island without suffering damage. The howitzer battery was placed in position on the river bank opposite Omdurman and bombarded the forts, destroying also the mosque and the tomb of the Mahdi. The cavalry on Sept. 2 advanced, with a horse battery, to Kasor Shanbal, whereupon the Khalifa, with his entire force of 40,000 to 50,000 men, marched forth from behind the hills where they had passed the night and drew up in battle order within a mile of the Anglo-Egyptian forces, which were disposed to good advantage in the form of a horseshoe, with guns and Maxims placed at intervals and both flanks resting on the river, protected by the gunboats. The British soldiers built a *zariba*, while the Egyptians threw up intrenchments. The dervishes advanced against the front and both flanks simultaneously. On the right the Egyptian cavalry and camel corps drew off the attack, leaving 2 guns in the hands of the pursuing dervishes. On the front and on the left flank, which was formed by the British division, the attack was fully developed, but under the unerring fire of field guns and Maxims and the withering fusillade of repeating rifles the dervishes melted away before coming within the firing distance of their own weapons. Their ranks were half destroyed while inflicting a loss of not more than 100 on the Egyptians, who cleared the field in less than fifteen minutes. The dervishes retired and reformed behind the shelter of the low range of hills. On the other side of the Surgham hill the Khalifa had a large body of fresh troops in reserve. Toward the close of the action the British lancers led the advance to Omdurman. Beyond the hill they were fired at by concealed riflemen, at which they charged through the dervishes, who numbered 2,000, and faced about on reaching the top of the opposite incline. Meanwhile the sirdar, seeing no more foes in front, ordered a general advance of the brigades in echelon to Omdurman. As Gen. MacDonald's Soudanese took a wide turn, in order to let the Egyptians under Gen. Lewis pass, it was fiercely attacked on flank and rear by dervishes sweeping down from the Kerreri hills. The camel corps, which, followed by the cavalry, was guarding the rear of the transport column, was involved in the attack. Gen. MacDonald wheeled his battalions about so as to form two sides of a square fronting the enemy in both directions, the line being prolonged by the camelry on the right, where the attack was heaviest. The sirdar ordered the rest of the brigades, which were in advance, to change front and wheel to the right round Surgham hill, while he sent one of the British brigades back to re-enforce MacDonald's men. These, however, had broken the force of the attack before the supports arrived. An attack from the Khalifa's camp behind the hill was readily repelled by the British and Soudanese infantry on the extreme left, supported by a field battery and Maxims. The rest of the battle was a mere chase. The battery on the left, co-operating with long-range infantry fire, drove the dervishes off to the west to prevent their re-entering Omdurman. Swinging round Surgham hill, the guns and infantry crumpled up the dervish columns in the plain beyond. The intrepid

Arabs rallied repeatedly and returned to the charge, but were mown down by a deadly cross fire of infantry and artillery from the Anglo-Egyptian line that now enveloped them. The Egyptian cavalry kept the Baggara horse busy throughout the engagement. The dervishes, although kept at long range, 2,000 yards or more, most of the time, nevertheless succeeded in inflicting a loss of nearly 2,000 on the Anglo-Egyptians, but only by a courage that sought death and at the cost of almost total annihilation. More than 8,000 were killed outright. The broken remnant that trailed over the desert could not be collected and reorganized into a fighting force. The battle was over before noon, and on the same day the sirdar entered Omdurman, while his troops encamped under its walls. The Khalifa Abdullah, his power utterly crushed, retired to El Obeid. Slatin Bey, the former governor of Kordofan, who was kept a prisoner by the Mahdi for many years, was installed at Omdurman as Egyptian governor.

The Fashoda Incident.—France, supported by Russia, consistently refused to recognize the Soudanese and Equatorial provinces of Egypt after they were abandoned by the Egyptian Government under British control as either a no-man's land open to European occupation in general or as a British sphere forming a *Hinterland* of British East Africa or falling to England by virtue of her occupation of Egypt. The Italian and German governments in their conventions with Great Britain acknowledged a British claim to these regions, but the French and Russian governments took the view that all the territories that once were Egyptian under the Sultan's suzerainty are still a part of Egypt and of the Ottoman Empire. That they are Egyptian is the view finally adopted by the British Government when it sanctioned the expedition to wrest the Nile provinces from the Khalifa after the French and Russians had arranged a friendly understanding with the Negus of Abyssinia on the east and the French Congo stations were extended up the Ubangi-Welle to the edge of the Nile basin. The French Government asserted that it had an equal right with England to establish stations in the Bahr el Ghazal region or on the Nile and hold the country as custodian for the Khedive and the Sultan. The Anglo-Egyptian Nile expedition, which was carried out with the aid of British money after France and Russia had refused to sanction the application of the Egyptian general reserve fund to this purpose, was regarded by the French as a scheme to strengthen the English hold on Egypt and the Suez Canal and to prolong indefinitely the British occupation, which, according to the pledges of the British Government, will come to an end as soon as a native government can be organized in Egypt that is capable of maintaining order and fulfilling international obligations.

M. Liotard in 1896 had planted the French flag in the Bahr el Ghazal region of the Nile basin by the establishment of a post near Tambura, the residence of the great A Zandeh chief, 30 miles from the left bank of the Sueh. He had founded a string of stations affording a line of communications down the Ubangi. Capt. Marchand followed him with an expedition organized in the second half of 1896 with the distinct object of invading the Nile valley and disputing the British claim of pre-emption. His party included 9 French officers and 8 other whites, and was abundantly equipped with trade goods, which M. Liotard had lacked, although he succeeded in securing the acceptance of a French protectorate from the chief of Tambura. Capt. Marchand succeeded in transporting 6,000 loads of merchandise and munitions from Brazza-

ville to the upper Ubangi, and when the goods began to arrive on the Mbomu, M. Liotard continued his advance, founding a post north of Semio at Jenia and another at Dem Ziber. Capt. Marchand, following with a force of Senegalese soldiery, proceeded to the occupation of Jur Ghattas, near Tambura. Steamers were brought up in parts on the backs of porters, and were set afloat on the Sueh. Another flotilla was transported by way of the Mbomu and finally launched on another tributary and brought down to the Nile by the beginning of 1898. Kutchuk Ali, at the confluence of the Wuau and Sueh, was the starting-point for the advance to the Nile. The other expeditions organized by Prince Henri of Orleans, Count Leontieff, the Marquis of Bonchamps, and others, which were intended to invade the Nile valley from the opposite direction by the aid of the Negus Menelek and Ras Makonnen and with the co-operation of Abyssinian troops, failed to carry out their purposes. Capt. Marchand, however, descended upon Fashoda, and was established there when Sir Herbert Kitchener entered Omdurman. The sirdar, when he heard of a strange force on the Nile which he suspected to be Marchand's, sent gunboats up the river to find out. His emissary found Capt. Marchand there in no great strength and nearing the end of his resources. Gen. Kitchener ascended the Nile to Sobat and dispatched gunboats thence toward Meshra er Rek, the principal trading center of the Bahr el Ghazal region, with instructions to establish outposts. Capt. Marchand during the progress of the diplomatic controversy (see FRANCE) came down from Fashoda on a British gunboat and went to Paris to report to his Government. In the mean time active preparations for war were begun, both in England and in France.

EVANGELICAL ASSOCIATION. The following is a summary of the statistics of this body as they were published in October, 1898: Number of itinerant preachers, 1,045; of local preachers, 482; of members, 115,465; of Sunday schools, 2,140, with 23,288 officers and teachers and 143,216 pupils; of catechetical classes, 855, with 10,033 catechumens; of Young People's Alliances, 974, with 32,911 members; of baptisms during the year, 1,524 of adults and 6,706 of infants; of churches, 1,792; of parsonages, 689; amount of contributions for missions, \$146,645, of which \$15,000 were in the form of bequests and special gifts; total amount of collections for all purposes, \$871,311; average amount of contributions per member, \$7.60.

The total receipts of the missionary society for the year ending Aug. 31, excluding \$18,842 transferred from the permanent to the current fund, were \$171,706, showing an increase of \$19,220 over the previous year, and an aggregate of contributions of \$1.49 per member. The contributions of the Woman's Missionary Society amounted to \$4,131, or \$1.63 per member. Of this sum, \$1,781 were handed over to the general treasury. The observance of a special general mission day resulted in securing collections of \$2,705; the Children's Day collections yielded \$9,418; and the Young People's Societies contributed \$1,980. The 542 home missions returned 551 missionaries, 6 missions changed to stations, 24 new missions, 46,559 members, and 5,240 accessions. The foreign missions returned 103 stations, 128 missionaries, 7 new stations, 13,598 members, and 1,304 accessions. Included in the foreign missions are the Germany and Switzerland Conferences, with 13,237 members, and the mission in Japan, with 19 stations and 18 missionaries, which returned 61 accessions to the church.

The year's earnings of the Board of Publication were \$45,509.

EVENTS OF 1898. The year was remarkable mainly for its wars and rumors of wars. Early in January the situation in the far East became critical, involving the conflicting interests of the great European powers as well as of China and Japan, and at the same time summary measures had to be adopted for the coercion of the Sultan. A formidable insurrection was in progress in northern India, calling for vigorous measures on the part of the British military authorities, and simultaneously the Sudanese dervishes were mustering in unprecedented numbers on the upper Nile, preparatory to a descent upon Egypt. Into this international medley was suddenly projected the Spanish-American War, beginning with the highly dramatic exploit of Admiral Dewey's squadron at Manila, and ending with the equally sensational destruction of Cervera's fleet by Admiral Sampson's, the surrender of Santiago, and the final collapse of the Spanish cause. The year ended seemingly with an assurance that civilization, as it is understood by the English-speaking races, shall be guaranteed to western Africa and to the late Spanish possessions in the Orient as well as in the West Indies.

January 1. City of "Greater New York" inaugurated with appropriate ceremonies. Cuba: Inauguration by Spain of a Provisional Government at Havana. Portugal: Opening of the Cortes by King Carlos.

2. India: A British regiment cut off by tribesmen on the northern frontier. Rome: The Pope observes the sixtieth anniversary of his first mass. Egypt: It is announced that the dervishes are moving to the northward and threatening the British and Egyptian outposts. Sicily: Bread riots in the province of Girgenti; troops called out to preserve order.

3. Great Britain: The Government officially insists that Chinese ports must be open to all powers if to any. China: Li-Hung-Chang recalled to office at Peking. Philadelphia: Fiftieth anniversary of Girard College celebrated; Speaker Reed delivers the address.

4. Washington: More than 1,000 post offices added to the money-order class. Kentucky and Mississippi: Meetings of the State Legislatures.

5. Meeting of the State Legislatures in New York and Massachusetts. Washington: Both branches of Congress reassemble.

6. Maryland: Meeting of the General Assembly. Massachusetts: Inauguration of Roger Wolcott as Governor for the second term.

7. Russia and Japan recognize the imperial rank of Korea.

8. Washington: Secretary Sherman issues an appeal for Cuban aid and appoints a commission. Oklahoma: Two Seminole Indians burned at the stake for felonious assault and murder. Africa: An uprising against British authority in Basutoland.

9. Cuba: First distribution of supplies for starving natives delivered at Havana.

10. Paris: Trial of Count Esterhazy for letters published in "Figaro." Ohio: Inauguration of Gov. Bushnell at Columbus. Africa: Fighting in Basutoland between British and natives.

11. Washington: Resignation of Civil-Service-Commissioner Rice. M. A. Knapp elected chairman of the Interstate Commerce Commission. South Carolina and New Jersey: Meetings of the State Legislatures. Paris: Acquittal of Count Esterhazy on the charge of dealing with foreign governments. M. Brisson elected President of the Chamber of Deputies.

12. Ohio: Mark Hanna elected United States Senator for both terms. Japan: Formation of a new Cabinet with Marquis Ito as Premier. Cuba: Capture of an American filibustering expedition by a Spanish cruiser.

13. Iowa: Inauguration of Gov. Leslie M. Shaw at Des Moines. Indiana: The State Supreme Court decides that life-insurance policies are not taxable. Paris: Premier Méline announces in the Chamber of Deputies that M. Zola will be prosecuted for statements made in a letter to President Faure.

15. Washington: M. Cambon, the new French minister, received by the President. Nicaragua: Arrival of the United States Canal Commissioners who are accorded an official reception.

16. India: Gen. Sir Arthur P. Palmer appointed to command the field forces in northern India.

17. Boston: The United States Government purchases a large tract of land for fortifications. Paris: Anti-Dreyfus riots, several students hurt; the Dreyfus question shelved in the Chamber of Deputies.

18. Bohemia: Riotous disturbances in the Diet. New England: Many strikes among cotton-mill workers. Paris: The Minister of War lodges formal complaint against Émile Zola for his action in the Dreyfus case.

19. The President holds his first official reception at Washington. Florida: Opening of the National Fisheries Congress at Tampa. France: Anti-Jewish demonstrations at Paris, Marseilles, and elsewhere; students arrested. Italy: Bread riots at Ancona and elsewhere. Russia strengthens her forces on the Austrian and German frontiers. Austria: Riotous proceedings at Prague.

20. Philadelphia: Launch of the Japanese battle ship *Kassagi*.

21. Washington: Attorney-General McKenna confirmed by the Senate as justice of the Supreme Court. Japan orders a strong fleet to Chinese waters.

22. Paris: Riotous disturbances in the Chamber of Deputies on account of the Dreyfus scandal; troops called in to preserve order. India: Solar eclipse observed by numerous scientific expeditions under highly favorable conditions.

23. Admiral Siccard's squadron reaches Key West. Paris: Stringent precautions taken against Dreyfus riots. Algiers: Anti-Semitic riots suppressed by soldiers; 2 killed.

24. United States battle ship *Maine* ordered to Havana as an evidence of friendly naval relations with Spain. California: Opening celebration of the Golden Jubilee.

25. The *Maine* reaches Havana and exchanges salutes with the Spanish fortifications. Washington: J. W. Griggs, of New Jersey, appointed United States Attorney-General. Maryland: The Hon. Lewis C. McComas, Republican, elected United States Senator, after seven days' contest and ten ballots. New York: National Association of Manufacturers in session. Indianapolis: Meeting of National Monetary Convention to devise currency reform, 400 delegates present. Germany: Imprisonment of an editor for publishing a cartoon disrespectful to the Kaiser.

26. Washington: Arrival of President Dole of Hawaii; he is received as a guest of the nation.

27. Germany: General celebration of the Kaiser's fortieth birthday. Spain: The fleet ordered to Cadiz. England: End of the great engineers' strike, the strikers beaten at all points.

29. India: A British brigade severely handled in an encounter with tribesmen on the northern frontier. Plague riots in Bombay and elsewhere; the mobs fired on by troops. London: Jacobite celebration of the execution of Charles I. Rhode Island: Strike of weavers, Centerville cotton mills closed. Germany: Duel between Count William Bismarck and Herr Manback, the latter wounded. France: Anti-Jewish riots in Paris and Bordeaux.

30. Cuba: Consul-General Lee gives a dinner to officers of the *Maine* in Havana.

31. Washington: Adjournment of the United States Supreme Court. New York: The Senate passes a resolution of sympathy for the Cuban insurgents. Morocco: Encounter off the coast between a British merchant steamer laden with arms and a Moorish gunboat.

February 1. India: British troops under Gen. Westmacock severely punish the tribesmen and recover 22 bodies of their own slain (see Jan. 29). Germany demands indemnity from China for murder of missionaries.

2. Washington: State reception at the White House for Congress and the judiciary. Austria: Several schools and universities closed because of political riots among the students. Germany: Discriminating duties announced against the importation of American horses and living plants.

3. Canada: Meeting of Parliament at Ottawa.

4. Russia and the United States: By mutual agreement, the ministers resident of the two powers are promoted to be ambassadors. Consolidation of New York Central Railway with the Lake Shore and Michigan Southern.

6. Oregon: Government relief expedition sails for the Klondike.

7. Chicago: Opening of a national convention for the preservation of game. Paris: Trial of M. Zola and M. Perreux, proprietor of the "*Aurore*," for libeling the Esterhazy court-martial (see Feb. 23). Austria: The Imperial Government takes general measures to compel order among students.

8. Washington: A letter is published written by the Spanish minister, Señor Dupuy de Lôme, making disparaging remarks about the President. Sweden and Norway: William W. Thomas, the new United States minister, received by King Oscar. Great Britain: Opening of Parliament. Guatemala: Assassination of President Barrios. South African Republic: Re-election of Paul Krüger as President.

9. Mobile: Meeting of South Atlantic and Gulf States Quarantine Convention to concert measures against the introduction of contagious diseases.

10. New York: A census of the city under its new organization shows a population of 3,438,899.

11. Alaska: Serious disturbances reported in the Klondike region. Germany: General relations with the United States discussed in the Reichstag. Paris: Further rioting in connection with the Zola affair. Missouri: The Attorney-General rules that recitation of the Lord's Prayer and reading the Bible in the schools is a violation of State law.

13. Boston: Representatives of the Textile Unions recommend the calling out of all operatives in all the New England cotton mills. Texas: The Federal Court issues an order restraining three Texas railways from boycotting a steamship line between Galveston and New York.

14. Washington: The Democratic and Republican Congressional Campaign Committees complete their organization. Russia: The Government orders steel armor for two battle ships from American makers. Spain: Señor Luis Polo y Barnabe appointed minister to the United States. Washington: Luther G. Billings, pay director of the navy, dismissed from service for falsehood and scandalous conduct. Italy: Discovery of the birth record of Americus Vesputius in the Church of San Giovanni, Florence.

15. The United States battle ship *Maine* destroyed by an explosion in the harbor of Havana. Intense excitement and indignation all over the United States, sympathy of the whole civilized world. Two officers and 266 enlisted men were killed and many others were injured.

16. Costa Rica: A revolution in progress.

17. Spain officially disavows the De Lôme incident. Naval Court of Inquiry appointed to investigate the loss of the *Maine*.

18. Washington: Dispatches of condolence received from all over the world on account of the destruction of the *Maine*. New York: Arrival of the Spanish battle ship *Vizcaya* to return the visit of the *Maine*; the officers now learn for first time of the *Maine's* loss; extra precautions. France: A protest is made in the Chamber of Deputies against the importation of American horses. Sicily: Troops fire upon the mob to restrain bread riots.

19. Washington: Adjournment of the Woman's Suffrage Convention. Cuba: Insurgent successes reported within a short distance of Havana; Gomez marching in the direction of the city. London: Large shipments of munitions of war sent to West Africa.

20. Cuba: Arrival of the United States Coast Survey steamer *Bache* with wrecking apparatus in Havana harbor. Washington: Orders issued for the enlistment of 300 men to make good the loss of the *Maine*. Berlin: Requiem service held for those who lost their lives in the *Maine* disaster.

21. Washington: Seventh annual convention of the National Society of the Daughters of the American Revolution. England: Irish home-rule bill as introduced by the Government approved by the Irish party.

22. Philadelphia: President McKinley delivers an address at the University of Pennsylvania. China: A loan of £16,000,000 announced with English and German banks. South Carolina: The negro postmaster at Lake City, Fraser C. Baker by name, murdered by a mob, his house burned and his wife and children maltreated.

23. Paris: Verdicts of guilty rendered against MM. Zola and Perreux (see Feb. 7); wild Anti-Jewish demonstrations in the streets.

25. New York: Spanish cruiser *Vizcaya* sails for Havana. Washington: Col. H. C. Corbin appointed adjutant general in place of Gen. Breck, retired.

26. Greece: An attempt to assassinate King George; the two assailants arrested (see March 31).

27. Key West: Arrival of the *Maine* Court of Inquiry. New York: Arrival of a large consignment of reindeer on their way to the Klondike.

28. Italy: Bread riots at Gallipoli.

March 1. Washington: Large contracts for war material given out by the Army and Navy Departments. Rome: Pope Leo XIII celebrates the twentieth anniversary of his elevation to the throne.

2. Brazil: Senhor Campos Salles elected President. Washington: National Congress for the Purification of Food and Drugs, 200 delegates present. Bristol, R. I.: successful trial of a new United States torpedo boat, the *Talbot*. Bohemia: The Diet closed by imperial order.

3. Washington: Naval engineers ordered to test the efficiency of old monitors for the navy. Ithaca, N. Y.: Cornell wins the intercollegiate debate with the University of Pennsylvania. Australia: The Federal Convention at Melbourne determines upon an Australian capital, to be located in a Federal district owned in common. Venezuela: A revolution breaks out on the inauguration of President Andrade.

4. The *Maine* Court of Inquiry goes to Havana on the *Mangrove*. Madrid and Washington profess peaceful relations, but both governments are negotiating for the purchase of ships and are giving out contracts for munitions of war. Italy: General celebration of the anniversary of the adoption of an Italian Constitution.

5. France: Duel between Col. Piquart and Col. Henry, growing out of the Zola affair (see Aug. 31). Baltimore: Launch of torpedo boat McKee from Columbian Iron Works. Austria: Resignation of the ministry.

6. Spain intimates a wish for the recall of Con-

sul-General Lee; the United States Government declines. Rome: Duel with swords between Signor Cavolotte, a distinguished literary man, and Signor Macola, editor of the "*Gazetta de Venezia*," both legislators; Signor Cavolotte killed.

7. Philippine Islands: It is announced that a fresh rebellion has broken out against the Spaniards. China leases Port Arthur to Russia for ninety-nine years. New England: A number of the late strikers resume work.

8. Washington: Congress appropriates \$50,000,000 for national defense. Captain W. H. Brownson, U. S. N., detailed to buy war ships in England and France. Cuba: At the request of the Spanish authorities, the *Fern*, a dispatch boat, is substituted for the *Montgomery*, a gunboat, to carry stores to the starving Cubans. Italy: Great popular demonstration at Rome at the funeral of Signor Cavolotte (see March 6).

9. A Spanish man-of-war, the *Alfonso XII*, sails for Cuba with men and munitions. India: Plague riots in Bombay, troops obliged to fire upon the crowd. China: Outlaws raid the island of Hainan. Washington: The President signs the bill appropriating \$50,000,000 for defense.

10. San Francisco: United States gunboat *Marietta* sails for Key West (see June 4). Ohio: The Society of Separatists at Zoar disbands; assets about \$3,000,000.

11. Key West: United States dispatch boat *Fern* sails for Matanzas with provisions.

12. Washington: Señor Polo y Barnabe, the new Spanish minister, presents his credentials to the President.

13. England: Two new Brazilian cruisers purchased by the United States. Spanish squadron sails for Cadiz.

14. New York: Naval board for the purchase of auxiliary cruisers begins its duties.

15. *Maine* Court of Inquiry leaves Havana for Key West. Turkey: Plot discovered to assassinate the Sultan; 100 soldiers killed.

16. A strong fleet of United States war vessels assembles at Key West; Spain remonstrates. Washington: Senator Proctor delivers a notable speech on the situation in Cuba. England: Rear-Admiral Lord Charles Beresford advocates an Anglo-American alliance. The Associated Chambers of Commerce of the United Kingdom favor a compulsory adoption of the metric system.

19. San Francisco: United States battle ship *Oregon* sails to join the Atlantic squadron.

20. India: It is announced that the rebellion on the northwest frontier is ended. Washington: A flying squadron ordered to concentrate at Hampton Roads. Civil-Engineer M. T. Endicott appointed chief of the Bureau of Yards and Docks.

22. Austria: Opening of the Reichstag at Vienna. Berlin and London: The proposed Chinese loan is considerably oversubscribed. Key West: The *Maine* Court of Inquiry closes its sessions and sends its report to Washington.

23. Newport News, Va.: Launch of the battle ships *Kentucky* and *Kearsarge*. Italy: The Chamber of Deputies censures ex-Premier Crispi for complicity in bank frauds. Egypt: The Anglo-Egyptian army defeats the dervishes in two engagements near Abara.

24. Washington: The Navy Department purchases a number of auxiliary yachts and tugs. Germany: Large naval credits voted in the Reichstag. Spain: The Government announces a loan of about 50,000,000 pesetas from the Bank of Spain.

25. Washington: Report of the *Maine* Court of Inquiry made public.

26. Washington: A defense board appointed to secure harmonious action between the army and

navy. New York: National Guard and Naval Reserves ordered to be ready.

27. Spain: The elections for the Cortes result in favor of Sagasta. China: The Russian and Chinese representatives sign the agreement relating to Port Arthur, Tai-Lien-Wan and the railway concession.

28. Commodore Schley takes command of the flying squadron at Hampton Roads. Testimony in the Maine case made public. Germany: Lieut. Niblack, U. S. N., purchases a nearly completed cruiser at Kiel. Spain purchases British yacht Giralda. Ireland: Firearms seized by police as a precautionary measure.

29. Correspondence continues between Washington and Madrid looking to amicable settlement; but the war party in Congress takes aggressive action. Capt. Sigbee, of the Maine, reaches Washington.

30. War vessels of the United States stripped of all superfluous woodwork.

31. Cuba: Capt.-Gen. Blanco puts a stop to reconcentration in several provinces.

April 1. Spain replies to President McKinley's ultimatum. Naval reserves of the Atlantic States asked to be ready for service. Spanish torpedo fleet reaches the Cape Verde Islands and their battle ships leave Havana.

2. Orders sent to Havana to suspend wrecking operations on the Maine.

3. Paris: The Court of Cassation annuls the sentence of Émile Zola.

5. Washington: The Navy Department purchases several large ocean steamers for auxiliary cruisers. Great Britain declines to join the powers in proposing mediation between the United States and Spain. Rome: The Pope proposes conditions for armistice.

6. Cuba: General exodus of Americans. Madrid: Departure of some of the United States legation.

7. Washington: Ambassadors of Great Britain, France, Germany, Italy, Austria, and Russia call upon the President and present a joint note urging peace. Madrid: A Cabinet meeting favors war. China: Rioters sack the American mission in Chung-King-Kinsu and kill residents.

8. Washington: Army officers on special service ordered to rejoin their commands. Egypt: Dervishes defeated in a considerable engagement near Athara by the Anglo-Egyptian forces under Gen. Kitchener. China: The Government removes restrictions on the use of steam on lakes and rivers.

9. United States steamships Massachusetts and Texas join the flying squadron. Madrid: It is decided to grant an armistice to the free Cuban insurgents, probably by the advice of foreign ambassadors: Cubans decline armistice.

10. Washington: The Spanish minister delivers at the State Department the announcement of an armistice by the Regent's orders. Spain: Senatorial elections result in favor of the Government. Washington: The President asks Congress for power to put an end to the Cuban war. Madrid: Popular disapproval of Cuban armistice, street riots.

12. Washington: Arrival of Consul-General Lee from Cuba, his journey a popular ovation. Hong-Kong: Street fight between British and American sailors on one side, and Russian, German, and French sailors on the other. The Anglo-Americans win. Hampton, Va.: Flying squadron goes to sea for practice cruise.

13. Washington: Both Houses of Congress pass resolutions granting full authority to the President. New York: Atlantic liners St. Louis and St. Paul taken by the Government to serve as auxiliary cruisers.

14. Massachusetts: The Governor signs a bill substituting electricity for hanging in capital cases. Spain: The Cortes summoned to meet. A strong Spanish squadron declared in readiness for sea.

16. Washington: Congress passes a resolution recognizing Cuban independence.

17. Spain: A mob attacks the American consulate at Malaga.

18. Spain appeals to the powers against American misrepresentations and calumnies. Anti-American riots continue at Malaga and elsewhere. Venezuela: Ex-President Crespo killed in action by the insurgents.

20. Washington: The Government sends an ultimatum to Spain, demanding the surrender of Cuba by noon of April 23. The Spanish minister demands his passports.

21. Washington: War declared against Spain by the United States, beginning at 12 o'clock, noon (see Aug. 12). Charles Emory Smith appointed Postmaster-General.

22. Havana blockaded by United States squadron. Two Spanish merchant vessels, the Pedro and the Buena Ventura, captured as prizes by the United States cruisers Nashville and New York.

23. The President calls for 125,000 volunteers.

24. Spain declares war.

25. Washington: Resignation of John Sherman, Secretary of State.

26. Cuba: Lieut. Andrew Rowan, U. S. A., lands with Cubans for co-operation with American troops. Washington: President gives notice to Spanish vessels in American ports to leave by May 21. West Point: The first class is graduated ahead of time, and ordered to duty with the army.

27. Action between United States ships New York, Cincinnati, and Puritan, and Spanish forts at Matanzas, Cuba.

29. Florida: Troops begin to concentrate at Tampa. The Cape Verde Island fleet, under Admiral Cervera, sails westward.

30. United States steamships Oregon and Marietta reach Rio, Brazil. New York: Arrival of the United States auxiliary cruiser Paris. Congress authorizes a bond issue of \$500,000,000. It is taken up at once and largely oversubscribed. The United States auxiliary cruiser New York engages Spanish forts at Port Cubanäs.

May 1. Philippine Islands: A United States squadron, under Commodore Dewey, destroys the Spanish fleet of Admiral Montojo in the harbor of Manila. Spanish loss, about 600 killed or wounded; American loss, 7 wounded, none killed.

2. Commodore Dewey's fleet engages the forts in Manila Bay. Italy: Several persons killed in bread riots. Spain: Martial law proclaimed in Madrid because of popular fury over the loss of the Spanish fleet at Manila. A British gunboat sent to Santiago de Cuba to protect the English consul.

4. Italy: Import tax on cereals suspended because of bread riots. Admiral Sampson's squadron sails from Key West.

5. Washington: A large number of appointments of volunteer general officers made by the President. Africa: Insurrection at Sierra Leone.

6. Washington: Col. Leonard Wood authorized to recruit a regiment of volunteer cavalry among the Western cowboys and other rough riders; Theodore Roosevelt resigns as Assistant Secretary of the Navy to accept lieutenant-colonelcy of this regiment. Great Britain refuses to join the powers in intervention. Germany: Closing of the Reichstag; the Kaiser makes a speech.

7. The President sends the thanks of the nation to Commodore Dewey and promotes him rear-admiral. Italy: Bread riots reported in Milan, Florence, Leghorn, and elsewhere; many killed and wounded.

8. Washington: Capture of George Downing, an alleged Spanish spy (see May 12). Arrival of Stewart L. Woodford, late minister to Spain. Milan, Italy: Fatal encounters in the streets between troops and rioters, several hundred killed and wounded. Spain: Martial law declared in Badajoz and Alicante; bread riots.

9. Spain: Riots in Linares, 12 killed, 50 wounded. Public buildings looted; disorders elsewhere.

10. Major-General Shafter appointed to command the expedition to Cuba.

11. United States torpedo boat Winslow disabled by shore batteries off Cardenas; Ensign Bagley and four men killed, Lieut. Bernadon and two men wounded. Sierra Leone: American missionaries flee to the coast for safety. Italy: Reserves called out to preserve order. Costa Rica: Inauguration of President Iglesias. Madrid: Grain warehouse burned by rioters. Harvard wins intercollegiate debate at Princeton.

12. Washington: George Downing, the Spanish spy, commits suicide in prison. Tennessee: Four battle monuments erected by the State at Chickamauga. Italy: Important papers seized at Rome, showing that the recent riots were deliberately caused by Nihilists. Sampson's squadron engages the forts at San Juan, Puerto Rico.

13. Commodore Schley's flying squadron sails under sealed orders. Canada: Resignation of the Earl of Aberdeen as Governor General. Cuba: A party of volunteers cut the cable off San Fuegos; 2 killed, 6 wounded. England: The Hon. Joseph Chamberlain makes a notable speech at Birmingham favoring an Anglo-American alliance.

15. Spanish gunboat Callao captured by American cruisers.

16. New military Department of the Pacific created embracing the Philippine Islands. Major-Gen. Fitz-Hugh Lee assigned to command an army corps at Tampa. Spain: Popular wrath at Mr. Chamberlain's speech.

18. Chester, Pa.: Launch of the United States battle ship Alabama at Cramp's yard; she is named by a daughter of Senator Morgan. Spain: The ministry resigns and a new one is formed by Sagasta.

19. Japan: The Emperor in person opens the Diet at Yokohama.

20. Charlotte, N. C.: Monument unveiled in honor of the signers of the Mecklenburg declaration of independence. Spain: The Senate congratulates Admiral Cervera on his arrival at Santiago.

21. Baltimore: Enthusiastic popular welcome given to the Sixth Regiment of Massachusetts Volunteers. New York: Mayor Van Wyck removes the Republican police commissioners.

22. Germany: Confirmation of the Crown Prince and his brother in the Lutheran church at Potsdam. South Africa: England's suzerainty officially denied and accusations reiterated as to countenance of Jameson's raid.

24. Victoria's birthday celebrated in several American cities and at some of the military camps. China: Great Britain takes possession of the port of Wei-Hai-Wei.

25. Washington: The President issues a call for 75,000 volunteers. San Francisco: Three United States transports sail for Manila with 2,500 troops. The battle ship Oregon, Capt. Clark, arrives off Jupiter inlet, Florida, after a voyage of 17,499 miles without mishap or breakdown. Washington: Negotiations open with a view to settlement by arbitration of all controversies between the United States and Canada.

26. Council of war held at the White House. Key West: Arrival of the battle ship Oregon.

27. Washington: The President nominates 28 brigadier generals. San Francisco: Gen. Merritt

arrives to take charge of the Manila expedition. China: American mission at Tung-Chow looted by a mob.

28. Cervera's Spanish squadron blockaded at Santiago by Commodore Schley's squadron. Washington: Oscar S. Straus appointed minister to Turkey in place of James B. Angell, resigned. London: State funeral of the late William E. Gladstone at Westminster Abbey. Mississippi: The Governor appoints the Hon. William Van A. Sullivan United States Senator in place of Senator Walthall, deceased.

29. Commercial and reciprocity treaty signed between the United States and France. Key West: British steamer Restormel seized as a prize by United States steamship St. Paul while endeavoring to run the blockade. Manila: Spanish gunboat Leyte captured by the Americans.

30. The President proclaims reciprocity treaty with France.

31. Schley's squadron engages the forts at Santiago. Manila: Severe fighting reported between Philippine insurgents and Spaniards.

June 1. Omaha, Neb.: Opening of the Trans-Mississippi and International Exhibition. Admiral Sampson joins Schley off Santiago, assumes command of the entire fleet, and establishes a close blockade. Tampa: Arrival of Gen. Miles and staff. Nicaragua: Congress adjourns after concluding a treaty of peace with Costa Rica. France: Riotous proceedings in the Chamber of Deputies over the election of speaker.

2. M. Deschanel chosen President of the Chamber of Deputies.

3. Santiago: United States collier Merrimac sunk at the entrance of the harbor by Lieut. Hobson and a volunteer crew of seven men. Turkestan: Revolt of natives against Russian authority; 20 soldiers killed, 18 wounded.

4. United States gunboat Marietta reaches Key West (see March 10).

5. Japan and Russia sign an agreement guaranteeing independence to Korea.

6. Admiral Sampson's fleet shells the defenses of Santiago. Washington: Senhor Joaquin Francisco de Assizi presents his credentials as minister from Brazil. Montreal: Arrest of Spanish agents by the colonial authorities. Belfast, Ireland: Police attacked by a great mob of Orangemen, several hurt.

7. United States forces under Gen. Shafter sail for Santiago.

8. London: Ernest T. Hooley, the famous promoter, declared a bankrupt on his own petition.

10. Cuba: 600 American marines land and intrench themselves near the harbor of Guantanamo.

11. Repeated attacks by Spaniards are successfully repulsed by the detachment of marines at Guantanamo; 6 killed, several wounded.

12. Argentine Republic: Gen. Julio A. Roca chosen President for six years. Venezuela: It is announced that the current rebellion is quelled.

13. Washington: The President signs the war revenue bill. Santiago: United States dynamite cruiser Vesuvius fires shots at the forts; first use of dynamite projectiles in actual warfare. Canada: Adjournment of Parliament. France and England conclude an agreement respecting the Niger boundary. Chicago: Failure of the Leiter wheat deal.

14. Marines and Cubans continue skirmishing with the Spaniards near Santiago.

15. Caimanera forts engaged by United States steamships Texas, Marblehead, and Suwanee. Gen. Shafter's army, 16,000 strong, sails from Tampa under escort of 11 warships. San Francisco: 4,300 volunteers under Gen. F. V. Greene sail for Manila. Washington: The House passes the bill annexing Hawaii by a vote of 209 to 91.

16-18. Spain: Admiral Camera's fleet leaves Cadiz and reaches Cartagena.

20-21. Gen. Shafter's army arrives off Santiago, and begins landing at Baiquirá, 17 miles east of Santiago. Ladrone Islands: Spanish officials surrender to United States steamship Charleston.

22. Engagement off San Juan, Puerto Rico; United States steamship St. Paul disables the Spanish destroyer Terror.

23. Gen. Shafter's entire army lands with only two casualties. Cornell wins the intercollegiate boat race over Yale and Harvard.

24. Sharp action near Sevilla; Americans under Gen. Wheeler lose 16 killed and 41 wounded, but carry all positions.

27. San Francisco: Third expedition to Manila sails with Gen. Arthur MacArthur in command. Japan: Resignation of the Cabinet.

28. The President extends the blockade to include the southern coast of Cuba and Puerto Rico. Wisconsin: Celebration of the State semi-centennial.

29. San Francisco: Gen. Wesley Merritt sails for Manila. Re-enforcements for Gen. Shafter, 8,000 strong, sail for Santiago, Gen. Snyder in command.

30. Manila: Arrival of the first detachment of United States troops.

July 1. Heights of El Caney and San Juan near Santiago carried by Gen. Lawton's division of the American army; loss in two days' fighting, 22 officers, 208 enlisted men killed, 81 officers, 1,203 enlisted men wounded, missing 79.

2-5. Chicago: Strike among stereotypers; newspapers suspend publication.

2. Chinese rebels capture nine towns and defeat imperial troops.

3. Spanish fleet under Admiral Cervera attempts to escape from Santiago, but is destroyed by the United States blockading squadron under Admiral Sampson; American loss, 1 killed, 2 wounded; Spanish loss about 600 killed, 1,200 prisoners.

6-8. Spanish squadron of Admiral Camera passes through the Suez Canal, but is ordered back to Spain because of Cervera's defeat.

10. Bombardment of Santiago begins after repeated demands for surrender and a truce of several days.

13. Philippine Islands: German cruiser Irene interferes to protect Spaniards against insurgents; she withdraws on the appearance of United States gunboats. British Columbia: General election results in 19 for the Opposition, 15 for the Government, 4 independent and scattering. Paris: Arrest of Count Esterhazy for forging telegrams. London: Anglo-American League organized.

14. Surrender of Santiago to the United States forces under Gen. Shafter. Paris: Celebration of the fall of the Bastille. Great Britain consents to act as arbitrator in the boundary dispute between Chili and the Argentine Republic.

15. United States steamship Harvard reaches Portsmouth with over 1,000 Spanish prisoners, mostly sailors from Cervera's fleet. Spain: The Government suspends individual rights throughout the peninsula.

16. Washington: The President appoints commissioners to adjust differences between the United States and Canada.

17. United States forces take formal possession of Santiago. The War Department advertises for bids to carry Spanish prisoners back to Spain.

18. Expedition to Puerto Rico sails with Gen. Miles in command. Paris: Conclusion of the trial of Zola and Perreux. They are sentenced to one year's imprisonment and fine of 3,000 francs.

19. Cuban troops restrained from entering Santiago.

20. Washington: Government awards the contract for taking Spanish prisoners home to a Spanish steamship company. Charleston, S. C.: Three transports with 4,000 troops sail for Puerto Rico under Gen. J. H. Wilson. Atlanta, Ga.: Reunion of 10,000 Confederate veterans. Gen. John B. Gordon presiding. Bergen: The International Fisheries Congress decides that six marine miles is the limit of territorial waters. Ecuador: General amnesty granted to political offenders.

21. Gen. Leonard Wood, late colonel of the Rough Riders, designated military commander of Santiago. Admiral Sampson's squadron engages the forts at Nipe and sinks a Spanish gunboat. Gen. Garcia withdraws the Cuban forces from the vicinity of Santiago, having taken offense at alleged want of official courtesy.

22. Harmony re-established with the Cuban forces under Gen. Garcia. Washington: Preliminary meeting of the Canadian Commission. F. W. Peck, of Chicago, appointed United States commissioner to the Paris Exposition in place of Major Handy, deceased. Great Britain: New naval programme announced calling for 4 battle ships, 4 cruisers, and 12 destroyers, cost £15,000,000. Philippine Islands: Aguinaldo declares dictatorship and proclaims martial law in the islands.

23. San Francisco: Transport City of Rio sails for Manila with 900 men under Gen. H. G. Otis. Niagara Falls: Meeting of the New York State Bankers' Convention.

25. Puerto Rico: United States forces under Gen. Miles land near Ponce. Seven thousand Spaniards surrender near Guantanamo. Canada: The Earl of Minto appointed Governor General to succeed the Earl of Aberdeen.

26. Washington: Peace negotiations opened on behalf of Spain by the French minister, M. Cambon. Paris: The Legion of Honor drops M. Zola's name from its roll.

27. London: Startling revelations in the case of Ernest Terah Tooley, the promotor; many titled persons implicated. Organization of the Anglo-American League with James Brice as chairman and the Duke of Sutherland as treasurer.

28. Puerto Rico: The city of Ponce surrenders to Commander Davis of the United States gunboat Dixie. The American army shortly takes possession of the place and Gen. Miles issues a reassuring proclamation to the inhabitants.

30. San Francisco: United States transport St. Paul sails for Manila with the First South Dakota Volunteers and recruits. Gen. Merritt arrives at Manila. New England: Several cotton mills close on account of reduced prices.

31. Spaniards in force attack the American position at Manila, but are repulsed; American loss, 9 killed, 47 wounded.

August 1. Detroit, Mich.: League of American Municipalities addressed by Gov. Pingree.

2. Washington: Official announcement that the terms of peace as proposed are accepted by Spain. Germany: Marriage of the Duke of Schleswig-Holstein to the Princess Dorothea of Saxe-Coburg.

3. Puerto Rico: American forces within 30 miles of San Juan. Colombia, South America: Agrees under pressure of the Italian fleet to pay the Ceruti claim of \$300,000.

4. Puerto Rico: Col. San Martin shot by the Spaniards for having abandoned Ponce. American forces in the suburbs of San Juan.

6. Great Britain: General orders to the British fleet to be in readiness for war. Sir Thomas Lipton challenges for the America's cup.

7. Tampa: Insubordinate action of colored cavalry regiment; several arrests made. Turkey re-

pudiates all responsibility for American losses in Armenia. Russia occupies Niu-Chwang.

9. Norwegian steamers Aladdin and Bergen captured by blockading squadron and taken to Key West. Frederick, Md.: Statue erected in memory of Francis Scott Key, author of "The Star-Spangled Banner."

10. Peace protocol drawn up in Washington. United States Weather Service established in the West Indies. Great Britain: The Hon. George N. Curzon appointed Viceroy of India to succeed the Earl of Elgin.

11. San Francisco: United States commissioners sail for Honolulu. Brussels: Encounter between police and anarchists.

12. Peace protocol signed by representatives of the United States and Spain; hostilities at once suspended and an armistice proclaimed; duration of hostilities one hundred and fourteen days (see April 21). Honduras, Salvador, and Nicaragua agree to form the United States of Central America under one President. Newfoundland: Lieut.-Col. McCullum appointed Governor to succeed Sir Herbert Murray. Honolulu: The American flag raised at Hawaii and the annexation treaty ratified.

13. Manila surrenders to the army and navy of the United States, and the land forces take possession of the city; no disorder or pillage; 5 killed, 43 wounded, 7,000 prisoners. Naval attack on Manzanillo stopped on receipt of peace orders from Washington. United States steamship San Francisco struck by a shell from the Havana batteries. Engagement with Spanish battery near Arbonito, Puerto Rico. Indianapolis: National meeting of the League of American Wheelmen.

14. Several transports with returning troops arrive at Montauk Point. Canada: International yacht race, Canadian 20-footer Dominion wins against the American Challenger, at Dorval, Quebec, the winning boat rigged as a catamaran.

15. Washington: The President appoints military commissions for Cuba and Puerto Rico. Col. John Hay succeeds Secretary Day as Secretary of State. Mustering out of volunteers begins.

17. President Faure and President McKinley exchange congratulations over the new French cable.

18. Paris: Military trial of Count Esterhazy ordered. Santiago: Increase of local police force on account of lawlessness.

19. Washington: Orders issued for collection of customs in Puerto Rico. Saratoga, N. Y.: National conference for foreign policy of the United States. Russia contracts with the Cramps of Philadelphia to build 2 battle ships and 3 protected cruisers. Guatemala: Revolution ended by the death of Gen. Morales.

20. New York: Arrival of Admiral Sampson's fleet and review of the ships in the North river.

22. Washington: General orders issued for physical examination of volunteers prior to muster out, records to be preserved for the protection of the Pension Office.

23. Manila: Gen. Merritt relinquishes his command to Gen. Otis and assumes duties as military governor. Canadian-American Commission meets at Quebec, Lord Herschel chosen president. Denver: Annual meeting of the American Bankers' Association.

24. Mystic, Conn.: Annual meeting of the Universal Peace Union. Puerto Rico: Saloons closed in the interest of order.

25. Gen. Shafter sails for home, leaving Gen. Lawton in command of Santiago. The British Government appoints a commission to investigate French fishery rights in Newfoundland.

26. Street fight in Manila between United States soldiers and natives, several killed on both sides.

27. Constitution adopted for the United States of Central America and a Provisional Government organized. Russia: By order of the Czar, a conference looking to international disarmament is proposed to the great powers.

29. New York: The Seventy-first Regiment reaches home and marches from the Battery to Thirty-fourth Street. Dangerous riots reported in the Barbadoes Islands among lawless negroes.

30. Gen. Merritt and staff leave Manila for Paris. Austria-Hungary: Agreement between the Prime Ministers looking to closer political union. China: Rebels reported in force near Canton.

31. Rear-Admiral Schley, Gen. Gordon, and other officials sail for Puerto Rico to fix terms of surrender and evacuation. Release of Spanish prisoners at Annapolis and Portsmouth. Paris: Col. Henry commits suicide after having confessed a forgery in the Dreyfus case (see March 2).

September 2. Egypt: Battle of Omdurman—Anglo-Egyptian forces, under Gen. Sir Herbert Kitchener, 22,000 strong; dervishes, 50,000 strong; the latter totally routed, with estimated loss of 27,000 killed and wounded; British and Egyptian loss, 387. Canada: Temporary adjournment of the Canadian-American Commission at Quebec.

4. English and Egyptian flags raised over the scene of Gen. Gordon's assassination at Khartoum. Cincinnati: Thirty-second encampment of the Grand Army of the Republic. Spain: Reassembly of the Cortes. Holland: Coronation ceremonies of Queen Wilhelmina at Amsterdam.

5. Arkansas: State election carried by Democrats.

6. Crete: Fighting between Mussulmans and Christians; British naval forces interfere. Holland: Enthronement of Wilhelmina. England: Tower erected at Brandon Hill to commemorate the discovery of America by John Cabot. Vermont: State election carried by Republicans.

7. China: Li-Hung-Chang again deposed.

8. Cincinnati: Col. James A. Sexton elected Commander in Chief of the Grand Army of the Republic. Guatemala: Manuel Estrada Cabrera elected President.

10. Assassination of the Empress of Austria at Geneva, Switzerland, by an anarchist. Africa: A French force under Major Marchand discovered at Fashoda. Spain: The Senate ratifies the peace protocol.

12. Maine: Republicans carry the State elections.

13. Cervera and his officers sail for Spain. Lorenzo Snow chosen president of the Mormon Church.

14. Spain: Adjournment of the Cortes.

17. United States Peace Commission sails for Paris. Austria: Funeral of the Empress at Vienna.

20. Quebec, Canada: The joint high commission of the United States and Canada reassembles. Africa: Gen. Kitchener hoists the British flag over Fashoda.

21. A draft of 400 seamen sails to re-enforce Dewey at Manila. Quebec: Monument unveiled in memory of Champlain, the French pioneer (1567-1635). China: Imperial edict announces abdication of the Emperor in favor of Dowager Empress.

22. China: Dr. W. P. Martin, an American missionary, appointed President of the Imperial University. American missionaries near Hai-Nan forced to flee for safety on account of the insurgents.

23. Italy: Mount Vesuvius in eruption.

25. Spanish battle ship Maria Teresa raised under direction of Lieut. Hobson.

27. Washington: First formal meeting of the War Investigating Committee. France: Dreyfus

case reopened and ordered before the Court of Cassation. Great Britain: Gen. Sir Herbert Kitchener raised to the peerage. Havana: Remains of Columbus exhumed with ecclesiastical ceremonies prior to removal to Spain.

27. It is reported that all European war ships have left Manila.

28. Paris: Reception to Spanish and American Peace Commissioners by the French Minister of Foreign Affairs. Negotiations opened by the British ambassador in regard to the occupation of Fashoda by the French.

29. Illinois: State troops called out to maintain order among striking miners at Parna. Crete: Ultimatum of the European powers presented to the Sultan. Canada: A prohibitory liquor law carried by a small majority.

30. Washington: Col. John Hay appointed Secretary of State.

October 1. Paris: First meeting of the Spanish and American Peace Commission, held by courtesy of the French Government in the Foreign Office.

2. Gen. Merritt and staff reach Paris, his testimony in regard to the Philippine Islands being desired by the Peace Commissioners. China: British and Russian marine guards landed at Peking to protect European interests. American cruisers ordered to Chinese waters for like purpose.

3. China: Foreign ministers at Peking hold an emergency meeting for mutual protection. Washington: The President appoints David J. Hill, of New York, Assistant Secretary of State in place of J. B. Moore.

4. Paris: President Faure tenders an official reception to the Spanish and American Peace Commissioners at the Elise. Virginia: Launch of United States battle ship Illinois at Newport News.

5. Minnesota: Indian outbreak in the Leach Lake Reservation, caused by tyrannical treatment of white settlers; Major Wilkinson and five United States soldiers killed, nine wounded, outbreak suppressed. Washington: Triennial Convention of the Protestant Episcopal Church. Paris: Proceedings begun for reopening the Dreyfus case. Georgia: Democrats carry the State election.

6. Paris: Street encounter between police and strikers, one killed. Jamaica: Riots among negroes; police and white troops ordered to the scene.

7. Washington: Orders issued reorganizing the military departments of the army. China: Additional Russian, English, and German troops arrive at Peking to protect European residents.

9. Calcutta: An official announcement declares that the plague is at an end.

10. Quebec: Adjournment of the joint high commission to Nov. 1.

11. The President and a large party start for Omaha, much speech-making by the way. Pittsburgh, Pa.: Triennial conclave of Knights Templars. Paris: The strike among building trades becomes general. Cuba: The American flag hoisted over Manzanillo.

12. New York: United States battle ships Oregon and Iowa sail for Manila. Chaplain MacIntyre, of the Oregon, dismissed from the navy for improper criticism of his superiors. Germany: The Emperor and Empress leave Berlin for a prolonged tour in the Orient. Illinois: The introduction of negro laborers in the coal-mining regions provokes riots, in which 13 are killed and 25 wounded.

14. Egypt: Nine Italian anarchists arrested in Alexandria supposed to be organizing a plot for the assassination of the German Emperor.

17. President McKinley receives the degree of doctor of laws from the University of Chicago. Puerto Rico: The United States forces take formal

possession of the island by raising the flag over San Juan. Washington: Government Industrial Commission organized with Senator Kyle as chairman. Chicago: Opening of the Peace Jubilee in the Auditorium. Vermont: Re-election of Senator Proctor. Crete: Seven Turks hanged for murder of British soldiers.

19. Chicago: Peace Jubilee parade reviewed by the President. Manila: Admiral Dewey forbids the Philippine insurgents to fly their flag on ships. Great activity in French and English navy yards in consequence of the Fashoda incident.

20. China: A French missionary and several Chinese Catholics massacred at Pahun. A Russian garrison occupies the town of Niu-Chwang.

21. Washington: Return of the President and his party. Santiago: Gen. Wood issues a proclamation guaranteeing personal rights. South Africa: Fighting between the Transvaal troops and a native tribe.

22. Harpersville, Miss.: Fourteen negroes and one white man killed in a race conflict.

23. Philadelphia: Beginning of Peace Jubilee. Paris: Official reply issued to British claims of Fashoda. Austria: Fatal cases of the bubonic plague appear in the hospitals. China: Native soldiers attack British engineers near Han-Kow.

24. Egypt: Further arrests of Italian anarchists at Heifa and Alexandria. London: Marriage of Gen. Wesley Merritt, U. S. A., and Miss Laura Williams.

25. Cuba: Gen. Calixto Garcia chosen chairman of the National Assembly. France: Resignation of the Cabinet; riotous disorder in the streets of Paris. Washington: Adjournment of the Protestant Episcopal Convention.

27. London: Enthusiastic reception of Gen. Lord Kitchener, of Khartoum.

28. San Francisco: Nearly 900 troops sail for Manila.

29. Paris: The Court of Cassation decides to grant a revision of the Dreyfus case, but does not order his release pending trial. Palestine: The German Emperor and suite enter Jerusalem through the Jaffa Gate. Crete: Five more Turks executed for participation in the murder of British soldiers.

30. Paris: Count Esterhazy expelled from the Legion of Honor. Vienna: Additional deaths from the bubonic plague. Russia: It is officially announced that all the great powers will take part in the disarmament conference.

31. Paris: American Peace Commissioners present a demand for the Philippine Islands. A new French ministry is installed under M. Dupuy.

November 1. In a notable speech at Worcester, Mass., Senator Hoar protests against expansion. France: It is announced that Major Marchand will be recalled from Fashoda. Battle ship Maria Teresa abandoned in a gale at sea near San Salvador.

4. London: Banquet to Gen. Lord Kitchener at the Guild Hall; Lord Salisbury announces that France will withdraw from Fashoda.

5. The Maria Teresa drifts ashore on Cat Island.

6. St. Louis: The city council passes a curfew bill requiring children under sixteen to be at home by nine o'clock in summer and eight o'clock in winter.

7. Turks expelled from Crete by the British and Russians.

8. Elections of greater or less importance in 42 States (for details see articles on the different States). Dallas, Texas: Six men killed in election affrays. South Carolina: Election riots at Phoenix, 8 negroes killed. England: A coroner's jury charges two Christian scientists with manslaughter, Harold Frederic, the author, having died under their treatment.

9. London: Lord Salisbury in a speech favors American acquisition of the Philippine Islands.

10. Wilmington, N. C.: Race conflict, 8 negroes killed, 3 whites wounded. Washington: Meeting of the joint high commission of Canada and the United States. Geneva, Switzerland: The assassin of the Empress of Austria sentenced to imprisonment for life, capital punishment having been abolished. Chinendaga, Nicaragua, chosen as the permanent capital of the United States of Central America.

11. Africa: Thirteen native chiefs hanged for the murder of English missionaries. Philippine insurgents capture the island of Negros from the Spaniards.

12. Quebec: Arrival of the Earl of Minto, the new Governor General of Canada. Princeton defeats Yale at football, 6 to nothing.

13. St. Paul, Minn.: Convention of the Woman's Christian Temperance Union.

14. Marlborough, Mass.: Strike of 2,500 shoemakers against free shops. Cuba: Fight between United States colored troops and Cubans in Santiago province, several killed and wounded.

15. Illinois: The Virdin Coal Company concedes most of the points demanded by striking miners. Crete: Prince George of Greece appointed High Commissioner of the European powers to govern the island. Russia orders the construction of 23 destroyers for her navy. Brazil: Inauguration of Senhor Ferraz de Campos Salles as President; United States steamships Oregon and Iowa participate in the ceremonies.

16. Italy: Opening of Parliament; the King's speech favors peace and general disarmament.

17. Philippine Islands: Encounter between American soldiers and natives, 1 killed, 3 wounded. Harvard defeats Yale at football, score 17 to nothing.

18. Washington: Arrival of Jotura Komura, the new Japanese minister. Pana, Ill.: Additional troops sent to maintain order. Russia: Hundreds of students arrested, some of them banished to Siberia for socialistic conspiracy.

19. Pennsylvania: Five true bills of indictment found against Senator Quay and his son, Richard R. Quay, and ex-State Treasurer Haywood; charge, misuse of State funds. Augusta, Ga.: Strike of 3,000 cotton-mill operatives against reduction of wages. Savannah, Ga.: Seven hundred tons of provisions shipped for starving Cubans by the War Department. Hungary: Disorderly proceedings in the Diet; the Premier, Baron Banffy, stoned by the mob at Buda-Pesth. Washington: Arrival of President Iglesias of Costa Rica; interchange of the usual official courtesies.

20. Russia: Anarchists attempt to wreck the Czar's train. Korea: Political street fight in Seoul, 23 killed.

21. Thanksgiving Day: The festival celebrated in Manila, Puerto Rico, and Hawaii. Augusta, Ga.: Strike spreads among the cotton-mill operators, 6,000 stop work. Rome: All European nations represented at the anti-anarchist conference. University of Pennsylvania defeats Cornell at football, 12 to 6.

22. Africa: Emperor Menelek of Abyssinia reported to be under arms to take a hand in the partition of Africa.

23. Launch of United States battle ship Wisconsin at San Francisco. Cuba: Gen. Castellanos appointed Spanish Governor General in place of Gen. Blanco, resigned. Germany: Frank Knach, an American, arrested at Berlin on charge of leze majesty. China: United States marines landed to guard the American consulate.

24. Turkey: The Sultan for the first time grants permits to travel in Asia Minor. Northern India:

Fighting resumed between the British and native tribes under the Mad Mullah.

25. Spain accepts peace terms proposed by American commissioners.

26. France: A bomb containing powder and nails found in the Bourse at Marseilles.

27. Disruption of the United States of Central America, the three states concerned reassuming their individual sovereignty. Spain: The Government decides to continue the suspension of constitutional rights.

December 1. New York: George W. Aldrich, State Superintendent of Public Works, suspended at his own request pending investigation of the canal fraud. France: The Senate adopts a motion forbidding secret examination of accused persons prior to trial by court-martial.

2. Great Britain grants financial aid to Barbadoes and St. Vincent on account of recent disaster. Austria: Fiftieth anniversary of the Emperor's accession to the throne; a large number of convicts pardoned in honor of the event.

3. Havana: The work of cleaning the streets begins under American management.

4. Mexico promotes her representative at Washington to be an ambassador.

5. Washington: Congress meets at noon. Paris: Anti-Dreyfus riot, firearms used against the police.

6. Ohio: The State Supreme Court orders the Standard Oil Company to produce its books. Texas: Meeting of the National Farmers' Congress at Fort Worth. Argentine Republic: The Senate approves an extradition treaty with the United States.

7. St. Louis, Mo.: The street-railroad system sold to a New York syndicate for \$8,500,000. Paris: A Dreyfus fight occurs at the opening of the new Théâtre Comique. Sir E. J. Monson, the British ambassador, gives great offense to the French in a speech before the Chamber of Commerce (a conciliatory explanation is afterward offered).

8. Naval-Constructor Hobson ordered to the Asiatic station for duty in raising the sunken Spanish war ships at Manila. Paris: Henri Lavedan elected a member of the French Academy. China: The new Russian minister declines to recognize the Dowager Empress.

9. Paris: A treaty of peace signed by the commissioners of America and Spain. Pennsylvania: A stay of proceedings granted by the State Supreme Court in the Quay case. Cuba: Mr. E. F. Rathbone, of Ohio, appointed Chief of the United States Postal Service in the island. Hungary: Disorderly scenes in the Diet during a speech of the Premier Baron Banffy.

10. It is announced that the young Queen of the Netherlands and Prince William of Wied are betrothed.

11. Col. William J. Bryan resigns his commission in the volunteer service of the United States. Havana: A street riot occurs between Cubans and Spaniards; several of the participants killed.

12. England: Sir William Vernon Harcourt resigns the leadership of the Liberal party. Africa: A party of Belgian traders murdered by natives in the Congo region. Formosa: Six Japanese policemen and an inspector killed by natives. Havana: Arrival of Gen. Fitz. Hugh Lee and staff. Washington: The President and a large party leave the White House for a tour in the South. Yale University: Resignation of President Dwight accepted by the corporation.

13. London: Release of the Christian Scientists indicted for the death of Harold Frederic.

14. Washington: Col. William J. Bryan announces his policy regarding the Philippine Islands, favoring relinquishment after a stable government is erected.



THE GOVERNMENT BUILDING, LOOKING NORTHWEST.

17. New York: Arrival of Major-Gen. Wesley Merritt, U. S. A., from his trip to the Philippine Islands.

18. New York: Plymouth Church, Brooklyn, accepts the resignation of its pastor, the Rev. Lyman Abbott, D. D.

20. Kansas City: Samuel Gompers re-elected President of the American Federation of Labor. Washington: The President returns to the White House from his Southern tour.

21. Crete: Prince George, of Greece, arrives to assume control of the island. Spain: Serious illness of Sagasta, and a ministerial crisis.

22. New York: Dinner of the Canadian Society, with speeches favoring an Anglo-American League.

24. Navy: Retirement of Admiral Francis M. Buncie from the active list, on account of age.

26. Philippine Islands: Spaniards forced by the insurgents to evacuate the city of Iloilo, the last post held by them; American gunboats sent to take charge.

27. Havana: The dangerous classes of the city become unruly in view of the approaching Spanish evacuation; American soldiers detailed to preserve order. New York: Annual meeting of the American Chemical Society.

29. South Africa: A dangerous state of affairs exists in the Transvaal between the Boers and Uitlanders (mainly English).

30. India: Arrival at Bombay of the new Viceroy, Lord Curzon, with his American bride, Lady Curzon (*mée* Leiter); they are received with great ceremony.

31. Austria-Hungary: Expiration of the international treaty. Havana: Preparations completed for raising the American flag over the city on New Year's Day, 1899.

New York: Gov.-Elect Roosevelt takes the oath of office at Albany.

EXPOSITION, TRANS-MISSISSIPPI AND INTERNATIONAL. Since the World's Columbian Exposition, held in Chicago in 1893, four important interstate expositions that were international in character have been held in the United States. They were the Californian Midwinter International Exposition, held in San Francisco in 1894 (see "Annual Cyclopædia" for 1894, p. 91); the Cotton States and International Exposition, held in Atlanta, Ga., in 1895 (see "Annual Cyclopædia" for 1895, p. 269); the Tennessee Centennial and International Exposition, held in Nashville in 1897 (see "Annual Cyclopædia" for 1897, p. 756); and the Trans-Mississippi and International Exposition, held in Omaha from June 1 to Oct. 31, 1898, and of these the last-named was the largest and most successful.

Organization.—The beginning of the Exposition may be said to date from the meeting of the Trans-Mississippi Congress, held in Omaha in November, 1895. On Nov. 27, 1895, the Hon. William J. Bryan presented the following resolution before the Congress:

"Whereas, we believe that an exposition of all the products, industries, and civilization of the States west of the Mississippi river, made at some central gateway where the world can behold the wonderful capabilities of these great wealth-producing States, would be of great value, not only to the Trans-Mississippi States but to all the home seekers in the world; therefore *Resolved*, That the United States Congress be requested to take such steps as may be necessary to hold a Trans-Mississippi exposition at Omaha, during the months of August, September, and October, 1898, and that the representatives of such States and Territories in Congress be requested to favor such an appropriation as is usual in such cases to assist in carrying out this enterprise."

It was adopted unanimously, and after the ad-

journalment of the Congress the proposition was thoroughly canvassed in Omaha, resulting in the publication of a call for a meeting to be held in the Commercial Club on Jan. 18, 1896. The Trans-Mississippi and International Exposition was then organized and articles of incorporation adopted. The latter provided that the capital stock should be \$1,000,000, issued in shares of \$10 each, and that the life of the Exposition should be from June 1 to Nov. 1, 1898. The following officers were chosen: President, Gurdon W. Wattles; Vice-President, Jacob E. Markel; Treasurer, Herman Kountze; and Secretary, John A. Wakefield. Agitation was at once begun to secure national aid, and for that purpose bills were introduced in both the House and the Senate asking for an appropriation of \$250,000, such appropriation to be available only after a like amount of the capital stock of the exposition had been obtained. Meanwhile, the local canvass for subscriptions had been energetically carried on, so that in November, 1896, the amount promised reached \$330,000. This sum being sufficient to warrant the beginning of building operations, a meeting of the stockholders was held on Dec. 1, when it was decided to divide the work of the Exposition into seven departments, the heads of which should constitute the executive committee, who should have the active management of the affairs of the association. The officers elected were as follows: President, Gurdon W. Wattles; Resident Vice-President, Alvin Saunders; Treasurer, Herman Kountze; and Secretary, John A. Wakefield. Executive committees: Chairman and Manager of Department of Ways and Means, Zachary T. Lindsey; Manager of Department of Publicity, Edward Rosewater; Manager of Department of Promotion, Gilbert M. Hitchcock; Manager of Department of Buildings and Grounds, Freeman P. Kirkendall; Manager of Department of Exhibits, Edward E. Bruce; Manager of Department of Concessions and Privileges, Abram L. Reed; and Manager of Department of Transportation, William N. Babcock. Later the departments of publicity and promotion were consolidated under the management of Edward Rosewater. The organization was then completed by the appointment of a vice-president by each of the 24 governors of the Trans-Mississippi States. The success of the enterprise seemed assured, and as the requirements of the bill providing for Government appropriation were satisfied, the Secretary of State notified foreign governments of the international character of the Exposition, and invited them to participate. The failure of President Cleveland to sign the sundry civil bill containing the Government appropriation which had been cut down to \$200,000 was a source of some disappointment, and delayed work on the Government Building until the passage of the bill by the extra session of Congress called for by President McKinley. Meanwhile, local subscriptions had increased until the amount of \$420,000 had been promised, and later the State of Nebraska and Douglas County each appropriated \$100,000. Aid from various State legislatures was also received as follows: Illinois, \$45,000; Iowa, \$35,000; Montana, \$15,000; Utah, \$8,500; and New Mexico, \$1,500. Among Eastern States the following sums were appropriated by their respective legislatures: Georgia, \$10,000; New York, \$7,500; Massachusetts, \$6,000; and Ohio, \$3,000. The Kansas Legislature refused to appropriate any money, but the people themselves made contributions equivalent to nearly \$30,000, and the following amounts may be credited to the people representing their respective States: Minnesota, \$20,000; Montana, \$15,000; and Wisconsin, \$12,000.

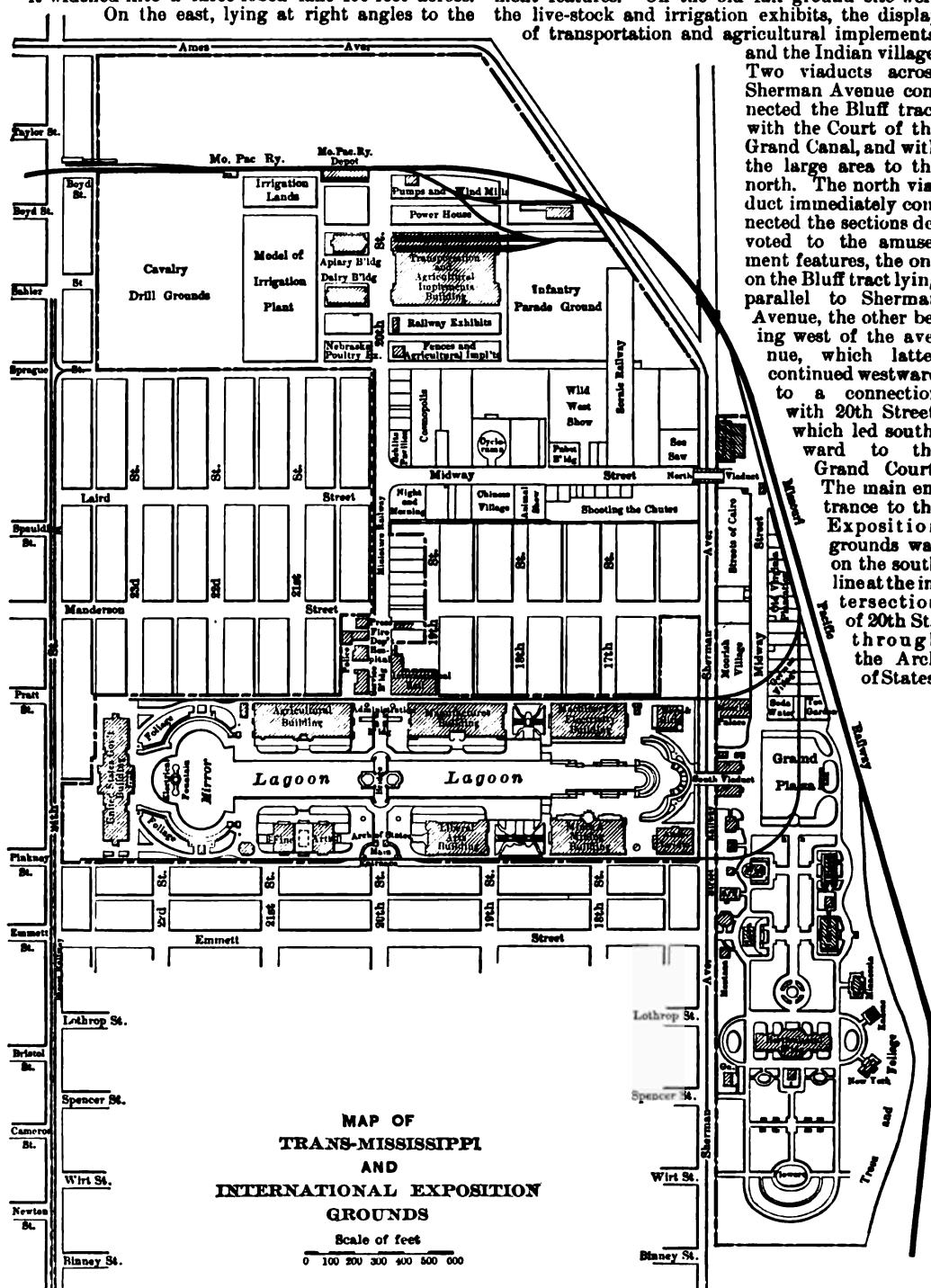
Location.—The site chosen was on the north side of Omaha, within the city limits. The area

known as the Kountze tract, lying across Twentieth Street, and extending from Sherman Avenue to Twenty-fourth Street, on account of its location, topography, symmetry, and accessibility, was selected for the group of main buildings. This property was 670 feet in width and about half a mile in length, and through the center extended a canal which was 150 feet wide at the east end, while at the west end it widened into a three-lobed lake 400 feet across.

On the east, lying at right angles to the

Kountze tract, was an area of sixty acres, known as the Bluff tract, stretching along the bluffs and overlooking the river country beyond. In this tract were grouped the State buildings. The remainder of the Exposition grounds were north of the Kountze tract, west of Sherman Avenue, and included the old fair grounds and the land beyond it, embracing in all about eighty acres. In this tract were the amusement features. On the old fair-ground site were the live-stock and irrigation exhibits, the display of transportation and agricultural implements,

and the Indian village. Two viaducts across Sherman Avenue connected the Bluff tract with the Court of the Grand Canal, and with the large area to the north. The north viaduct immediately connected the sections devoted to the amusement features, the one on the Bluff tract lying parallel to Sherman Avenue, the other being west of the avenue, which latter continued westward to a connection with 20th Street, which led southward to the Grand Court. The main entrance to the Exposition grounds was on the south line at the intersection of 20th St., through the Arch of States.



Buildings.—The conversion of the accepted locality into a convenient building site was begun early in 1897, and on April 22—Arbor Day—the corner stone that marked the inauguration of the building was laid on the site of the prospective Arch of States with full Masonic ceremonial, after which a series of short appropriate addresses were delivered, including one by Hon. J. Sterling Morton, former Secretary of Agriculture, who said:

"A truth and a tree outlive generations of men. That this admirably planned Trans-Mississippi Exposition may plant truths as to the economic and material resources of its vast and opulent empire in the minds of the tens of thousands of intelligent visitors and sojourners who may attend it, with as cheerful a certainty and as serene a satisfaction as we experience in planting these trees on the never-deceiving, never-disappointing soil of the fertile Nebraska, is my sincere and intense desire."

A month later architects met in Omaha to consider the preliminary plans for the larger buildings, and during the following sixty days the plans were completed and the contracts let. By midsummer the construction was in progress all round the main court, and the bulk of the grading had been completed. The general scheme of the architecture was the concept of Messrs. Walker and Kimball, of Boston and Omaha, who were chosen to be the supervising architects of the Exposition. The main buildings were ranged along either side of the lagoon. At the west end stood the Government Building, flanked by imposing colonnades, which converged toward the west. The Arch of States, the main entrance, was on the south line at Twentieth Street. After passing through this arch the visitor arrived at the Court of the Grand Canal. To the west was the Fine Arts Building, while to the east was the Liberal Arts Building, followed by the Mines and Mining Building. Opposite was the Administration Arch, with the Palace of Agriculture on the west, and the Manufactures Building, followed by the Machinery and Electricity Building, on the east. The Grand Canal was spanned by a picturesque bridge, built with little arches, to permit the passage of gondolas and various small boats. Its ends terminated respectively at the Government Building on the west and at the viaduct on the east. Vine-shaded promenades of columns treated in the Pompeian manner extended between all the buildings, and provided visitors with nearly a mile of continuous shade all round the lagoon. As the eastern end was approached the ground rose in terraces and was adorned with shrubbery and flowers mingled with pieces of statuary, ending in a great hemicycle stairway crowned by a kiosk or minaret on the viaduct. On either side of the esplanade beyond were fanciful structures with irregular spires. The buildings were covered with white staff. Intricate carving and classic statuary was imitated to a nicety, and the artistic effect produced by the finished buildings was such as has seldom been seen in this country. Statuary of heroic size surmounted some of the main buildings, and all these were done in staff. The imposing columns of the long colonnades and of the beautiful porticoes facing the main court were constructed of the same material. The landscape gardening was designed and executed by Rudolf Ulrich, of New York, under whose direction over 700,000 feet of ground was seeded and 14,500 square yards of sod laid and sprouted. More than 3,000 trees and nearly 9,000 shrubs, chiefly of varieties native to Nebraska, together with over 100,000 plants and flowers, were used in beautifying the "Magic City."

Considering the buildings more in detail, and entering the grounds at the main entrance, the first structure to greet the visitor was the

Arch of States, which was designed by Walker & Kimball, and was 50 feet wide, 25 feet deep, and 68 feet to the top of the parapet. It was in the form of a triumphal arch, the opening being 20 feet wide and 35 feet high to the keystone. The arch was flanked on either side by exedras, which advanced in semicircles, partially embracing the plaza in front of it. In these exedras were the main ticket offices. It was originally intended that the Arch of States should be built of granite gathered from the various Trans-Mississippi States and Territories, and should remain a permanent memorial of the Exposition, but it was finally decided that the cost would be out of proportion to its utility, and the plan was abandoned. This arch, one of the most noticeable in the group of structures, was decorated with a frieze composed of the arms in colors of the different States, the whole being surmounted by sculptured figures bearing the shield of the United States.

Fine Arts Building.—This structure, designed by Eames & Young, of St. Louis, Mo., was 246 feet long and 130 feet wide, and had its longer side parallel to the Grand Canal. It consisted of two separate, symmetrical, domed buildings connected by a peristyle, or open court, surmounted by colonnades. The building rested on a balustraded terrace, and was approached from the plaza by flights of steps, and also from the avenue bordering the lagoon between it and the building. Entrance was had through the portico and vestibule to the central dome for each building; and it was lighted from the top, forming a suitable place for the exhibition of statuary. Surrounding this central feature were the galleries, all lighted by skylights, and so arranged as to afford the greatest degree of wall surface for the display of pictures, and to allow for the proper circulation of visiting crowds. Two separate buildings offered a better opportunity for the classification of material, and at the same time brought the scale of the architecture to its proper relation with its surroundings, and in accord with the general scheme of the Exposition grounds. The colonnade connecting the two parts formed an effective architectural feature conspicuous from the canal and opposite avenue, and afforded a place for the installment of architectural fragments and models, which could not be so effectively arranged inside the wall. A touch of landscape art added special interest to the treatment of the court. In the exterior design a somewhat free rendering of classic *motif* was adopted, the usual severe simplicity of outline being modified sufficiently to bring it into accord with the purpose of the building. The basis of the design was the Corinthian order, which was applied in two dimensions—the larger emphasizing the entrance porticoes and repeated on the galleries fronting the lagoon and opposite side; the smaller was adjusted to the height of the flanking walls and connecting peristyle, and served as a tie to bind the separate elements into one composition. Mr. Armond H. Griffith, of Detroit, Mich., was in charge of the exhibit, and to him credit is also due for the collection and installation of the exhibition.

The Government Building.—In the place of honor, at the extreme west end of the grounds, stood the building erected by the United States Government, designed under the direction of the supervising architect of the Treasury Department in Washington. The style of architecture followed was classic, the Ionic order being used. The building was arranged in three sections, that at the center having a frontage on the lake of 208 feet and a height to the top of the balustrade over a cornice of 58 feet, with a depth of 50 feet. The main entrance facing the center of the lagoon was reached by a

broad flight of steps and through a colonnade. The entrance was flanked on either side by pavilions, capped by richly decorated domes. The main building was surrounded by a colossal dome which towered above all other buildings, and which was capped by a heroic figure representing "Liberty Enlightening the World." At night the dome was lighted by electricity, and the torch was 178 feet above the ground. The side sections, which were separated from the central portion of the building by colonnades connecting with the Fine Arts Building on the south and the Agricultural Building on the north, each had a frontage of 148 feet and were 100 feet deep, with a height at the top of the balustrade of 44 feet, making a total length of the building of 504 feet and height at pinnacle of 178 feet. The floor space approximated 50,000 square feet, which was apportioned to the exhibits of the executive department and the

was richly decorated in this manner, and on either side of it were figures representing the "Sower" and the "Digger" from Millet's famous paintings, supported on either side by lesser figures and the arms of the State and nation. At each side of the great central arch were recessed niches, and crowning this central composition were three sculptured groups, those on either side representing the zodiac and the seasons, while the central figure crowning the whole composition represented "Prosperity," supported by "Labor" and "Integrity." At the corner pavilion there were figures representing the seasons and the favorable winds, and inscriptions relating to the subject of agriculture. Names of those who have been patrons of agriculture, or who have made notable inventions in that field of labor, were inscribed upon panels in the frieze. The superintendent in charge of this building was Prof. F. W. Taylor, of Lincoln, Neb.



THE GRAND CANAL AT NIGHT.

Smithsonian Institution, with its dependencies, and the Fish Commission. It was conceded that this exhibit was "better rounded, more attractive, and decidedly more instructive than any previous display of the United States Government." The commission under whose direction the exhibits were prepared and cared for consisted of J. H. Brigham, representing the Department of Agriculture, Chairman; C. E. Kemper, Treasury; F. W. Clarke, Interior; Lieut.-Commander E. M. Stedman, Navy; Major Henry C. Ward, War; W. H. Michael, State; J. B. Brownlow, Post Office; Frederick W. True, Smithsonian Institution; and William de C. Ravenel, Fish Commission; with William V. Cox, National Museum, as Secretary.

Agricultural Building.—This building was designed by Cass Gilbert, of St. Paul, Minn., and was 400 feet long and 148 feet wide, with a total floor space of 84,280 square feet. The style of architecture was of Renaissance or classical type, and the decorations and ornament were entirely modeled from agricultural products; festoons of corn and other cereals, and even common market garden products, were given place in the decorations. The great semicircular niche forming the main entrance

Administration Arch.—This building was designed by Walker & Kimball, and was 50 feet square and 150 feet high. Like the other buildings on the Main Court, the Administration Arch was Renaissance in style, and the graceful lantern that surmounted the sharply inclined roof was the highest point on the grounds, with the single exception of the colossal figure of "Liberty Enlightening the World," which capped the dome of the Government Building. On the front of the arch near the main cornice line were the seals of the State of Nebraska and of the city of Omaha, one on either side. Statuary of heroic size was used above the cornice to heighten the architectural effect. On each of the four pavilions were four symbolic figures, and at the center of the south side, facing the lagoon, was a group symbolizing "Administration." Between the roof and the main cornice was an open space, which was utilized as a point of observation, it being above the roofs of other buildings. The arch was used by the president of the Exposition as a place of exchange of official courtesies in the entertainment of distinguished visitors, and also contained certain of the offices of administration. At either side of the

arch were covered colonnades, connecting with the Manufactures Building on the east and the Agricultural Building on the west.

Manufactures Building.—This structure was designed by John J. Humphreys, of Denver, Col., and was 400 feet long by 152 feet wide. Its façade, fronting on the lagoon, was accentuated at the center and end with pavilions 64 and 40 feet long, respectively, thereby presenting a sufficient variety of mass. The height of the building to the top of the main cornice was 40 feet, the height of order 30 feet, resting on a stylobate 10 feet high. The height of the center pavilion to the top of the crowning group of statuary was 85 feet, while the end pavilion was 65 feet to the top of the dome. The large windows, 10 feet wide by 24 feet high, were placed at intervals of 16 feet, and the roof having a large skylight area made the interior very bright and cheerful. The center entrance was 24 feet wide by 34 feet high, and very rich in decoration, flanked on either side by coupled columns and their accompanying pilasters, standing 6 feet from the walls. The main cornice broke around a projection of columns supporting pedestals for groups of statuary 12 feet high. The center of the pavilion was crowned by a colossal group of statuary. There were also single statues between columns resting on a stylobate projected out to receive them. The spandrels above the arch were decorated with bas-reliefs. The end pavilions, with their entrances, were crowned with shallow domes. The entire interior elaboration was confined to classic ornaments. The ceiling, a large barrel vault with intersecting cross-vault, was richly coffered and elaborately decorated. On the walls were emblematic paintings. The superintendent was H. B. Hardt.

Machinery and Electricity Building.—This building was designed by D. H. Perkins, of Chicago, Ill., and was 304 feet long and 144 feet deep. The style of architecture followed was modern Renaissance, and was in harmony with the adjacent structures. There were triple entrances on the main floor level in the center of the main front, and similar groups in the centers of the east and west fronts, with four emergency exits in the north wall. In front of the building, flanking both sides of the main entrance, was an open portico 16 feet wide, running the entire front of the building. The center entrance feature projected beyond the portico, thus forming the grand-entrance vestibule. The main floor covered the entire area of the building. Above was a gallery 32 feet in width, extending around the four outer walls. The gallery was reached by spacious staircases in the front corners of the building. This left a high central court 248 feet long by 80 feet wide, lighted from the skylights and clerestory windows above the roof. The ornamental spandrels and panels received all of their *motifs* and suggestions from machinery. The cresting at the top was composed of cogwheels, this principle being carried out in all of the decorations. The underlying principles and functions of machinery were symbolized by the groups of statuary on the top of the building. At each of the four corners were groups representing the early supremacy of man over the untamed forces of Nature. A higher supremacy was shown by the center group, which was the dominating feature of the entire design. In this, man, developed beyond the youthful stage, having wisdom, takes these same untamed, unharnessed forces of Nature and harnesses them to his chariot, making them do his bidding, symbolizing in a direct way the service which machinery does for man in using the power of steam, fire, electricity, and gravity. The superintendent of both the department of machinery and the department of electricity was Prof. R. B. Owens.

Mines and Mining Building.—S. S. Beman, of Chicago, was the architect of this building which was 304 feet long and 140 feet wide. The Greek Ionic style of architecture characterized this structure. On the façade, facing the lagoon was a circular dome 150 feet in circumference that formed a grand, open vestibule and which served as an approach to the building. The inner dome was richly ornamented with ribs and panels, while the outer one was formed by a series of steps rising in the shape of a cone to the apex. An outer row of dome columns was detached and the entablatures were broken at the head of each, over which was a statue on a pedestal with a background formed by the stylobate of the dome. This treatment produced a monumental effect, and while in perfect harmony with the architectural style, was both original and interesting. Flanking the central dome were beautiful Ionic colonnades which formed covered ways along the entire façade, stopping at the corner towers. Over these colonnades were balconies that opened out from the interior galleries of the building. The four corners of the building were marked by square, plain towers surmounted by ornate, open, columned pavilions that were circular in form. Dr. David T. Day, of the United States Geological Survey, was in charge of the department, and most of the exhibits were secured through his efforts.

Liberal Arts Building.—The architects of this building were Fisher & Laurie of Omaha, Neb., and in length it was 246 feet with a depth of 130 feet. The design was of the French Renaissance style of architecture. Its location was immediately to the east of the Arch of States. The exterior of the building presented the appearance of two stories, the first story or stylobate being low in treatment, with small windows cut into a plain wall surface. The second story was enriched by Corinthian columns, set in pairs with ornamental windows between, and the top of the building was finished with an open balustrade which added to the general effect. At each corner of the building were pavilions with ornamental pediments projecting sufficiently from the main line wall to show a strong corner treatment. Above the pediments at each corner of the building were octagonal bases on which were set groups of statuary. Each group was composed of four heroic figures, the main one, representing the Liberal Arts, being supported by two kneeling figures suggesting industrial art, while in front of all was a smaller figure supporting a shield on which the attributes of pottery and wrought iron were inscribed. The class of exhibits for which the building was used was indicated by the free use of statuary and ornament on the exterior. Mrs. Frances M. Ford was the superintendent of the building.

To complete the group of buildings forming the Grand Court of Honor, mention must be made of the *Boys' and Girls' Building*, which was designed by Walker & Kimball, and the cost of which, \$9,000, was contributed by the children of the Trans-Mississippi region, and of the *Auditorium*, which was designed by Fisher & Laurie, of Omaha, Neb. These two buildings occupied respectively the northeast and southeast corners of the Court of Honor. On the Bluff tract was the

Horticultural Building, which was 300 feet long, 130 feet wide, and 160 feet high. It was designed by Charles F. Beindorf, who succeeded in producing a building singularly striking in its splendid masses, effective features, and excellent grouping. While a classic *motif* was adopted, it was handled with an unconventional freedom that gave to the whole a rich Oriental effect. The basis of design was the chaste Ionic. The details were modeled from flowers, fruits, and foliage. On either side of the stately

central entrance were towers, or rather mosquielike minarets. This feature was reproduced on four sides, forming an octagon from which sprang the dome. Between these minarets were placed circular colonnades, surrounded by statuary emblematical of the seasons. Above the dome was an open observatory balcony from which could be obtained a grand view not only of the Exposition grounds, but of the city and adjacent lakes, the picturesque valley of the Missouri, and the city of Council Bluffs, five miles away. Above this open balcony was the belfry. At the ends of the wings were octagonal-roofed pavilions in harmony with and emphasizing the general form of design. The wide frieze was beautifully ornamented with cupids reveling amid fruits and flowers. On either side of the main entrance on a high stylobate were placed groups of statuary representing "Night" and "Morning," festooned, the one with morning-glory and the other with night-blooming cereus. The building was profusely decorated with flower urns, hanging baskets, and ornamental plants of every description from semi-tropic climes.

At the extreme north end of the grounds was the *Transportation Building*, designed by Walker & Kimball. It was 432 feet long, 249 feet wide, and covered more than three acres of ground. Being one of the farm group, it had its characteristic architecture of half timber and half plaster. Its whole surface was marked off into panels by an interesting network of framing timber, posts, brackets, and braces. A deeply recessed porch sheltered the east and west entrances, and a soft light pervaded all portions, shed from a skylight of new and interesting material which promises to soon replace glass for that purpose. Wide, overhanging, bracketed cornices gave the broad shadows so necessary to this style of architecture. Here were housed all forms of vehicles, from the bicycle to a Pullman train, as well as all farm machinery and implements. D. H. Elliott was the superintendent of the Department of Transportation and Agricultural Implements.

To the west and directly opposite the Transportation Building were the *Apiary Building*, of Swiss mediæval architecture, designed by John McDonald, of Omaha, Neb., and the *Dairy Building*, in the German style, designed by F. A. Henninger.

Likewise on the Bluff tract were the State buildings. These included the

Georgia Building, built of Georgia pines and filled with an interesting state exhibit of minerals and other native resources.

Illinois Building, designed by Wilson & Marshall, of Chicago, Ill. The architecture was a combination of Colonial, Greek, and Byzantine styles.

Iowa Building, designed by Josselyn & Taylor, of Cedar Rapids, Iowa. It was 90 feet long and 56 feet deep, and was of a composite style of architecture with Corinthian porches.

Kansas Building, designed by John F. Stanton, of Topeka, Kan. It was 57 feet long by 55 feet deep, and is described as "a dignified structure with broad porticoes and ample balconies."

Minnesota Building, designed by James A. McLeod, of Minneapolis, Minn. It was 100 feet long and 160 feet wide, two stories high, and made of native logs, somewhat resembling a Swiss cottage.

Montana Building, a plain structure, 75 feet long by 60 feet deep.

Nebraska Building, designed by Craddock & McDonald, of Lincoln, Neb., and was of classic style following the Ionic order. It was 145 feet long, 90 feet deep, and 85 feet high.

New York Building, designed by Dunham Wheeler, of New York city, a one-story building surrounded by a broad portico.

Wisconsin Building, designed by A. C. Clas, of Milwaukee, Wis. It was in the classic style, with an imposing entrance through four immense fluted Corinthian columns.

Amusement Features.—These were grouped for the most part on the north side of the grounds on the thoroughfare at right angles to each other, and known, respectively, as North and East Midway Streets. The usual mechanical devices—such as a Giant Seesaw, a Scenic Railway, and Shooting the Chutes—were conspicuous, and as a novelty in this class of attractions there was a Union Pacific Miniature Train, said to be the smallest in the world, having a total length of 29 feet, including the locomotive, tender, 4 observation cars, 1 box car, and a caboose. Each diminutive car seated two children comfortably. The engine weighed about 450 pounds, and its nearest competitor was said to be a London locomotive weighing 5,000 pounds. Ethnological shows were common, and included an Afro-American village, a Chinese village, an English county fair, a Flemish village, a German village, an Irish village, a Japanese tea garden, a Moorish village, streets of all nations, Streets of Cairo, and the usual Wild West Show. There were a mammoth whale and an ostrich farm, as well as Hagenbach's trained animals for those who cared for natural history, and a baby incubator was a feature that attracted many. The little Cuban lady, Chiquita, only 26 inches in height and twenty-eight years old, was of interest. Cycloramas of Havana and the "Maine," and of the great fight between the "Merrimac" and the "Monitor," were adjacent to each other on the North Midway. The weird Night and Morning, the Haunted Swing, the Mirror Maze, Lunette, and other optical illusions were conspicuous. Several vaudeville theaters, concert halls, and beer gardens completed the catalogue of amusement features in the Midway.

Likewise to be included under this heading were the daily concerts given in the Auditorium by famous orchestras and bands, including those led by Theodore Thomas, William H. Santelmann, and F. N. Innes. Also fireworks were conspicuous and frequent features that attracted visitors in the evenings.

The Congress of Indians.—An ethnological exhibit of rare interest was the gathering of over 500 Indians, representatives of 25 tribes, who, by permission of the Commissioner of Indian Affairs, were brought from various reservations and assigned to camping grounds within the Exposition tract. For this purpose an appropriation of \$40,000 was obtained from Congress, and under the direction of Capt. William A. Mercer, U. S. A., the Indians were selected and brought to Omaha. As it was desired to exhibit the native methods of living so far as possible, the Indians came prepared accordingly to erect their various kinds of homes. The Sioux and other Indians from the plains raised their tepees of cloth decorated with the totem marks of their respective tribes. The Indians of the South built wickiups, which are little more than cloth spread over bushes, the tops of which were drawn together and tied. Those who came from Wisconsin prepared wigwams made almost wholly of birch bark stretched over poles. One of the homes that was conspicuous was a grass house made by the Wichitas of Oklahoma. In shape it was similar to the cloth tepees and covered with grass laid on the poles that run over the side of the structure. Also of interest was an adobe house built by the Santa Clara Pueblos, of New Mexico, that was identical with similar buildings erected centuries ago by the ancestors of these Indians. They came with their special costumes,



THE INDIAN ENCAMPMENT.

their weapons, utensils, industrial appliances, ceremonial objects, burial structures, and handiwork. At regular intervals entertainments were given, including horn dances, war dances, grass dances, scalp dances, and friendly dances, which were participated in by the Sioux, Blackfeet, Assiniboins, Crow, Apaches, and Wichitas; also sham battles, in which the Indians were divided into two parties led by chiefs and illustrative of their methods of warfare. The Sioux usually took the part of the attacking party, and appeared on the scene just in time to rescue a comrade from the stake. After brief engagements they succeeded in releasing the captives and driving off the enemy, only to be attacked in return by the re-enforced Indians, and on each occasion in the final charge they were defeated, leaving many of their braves upon the field. Under the supervision of James Mooney, of the Bureau of American Ethnology, there was a miniature reproduction, historically correct in all details, of the last great council of the amalgamated tribes of the Kiowas and Apaches. In the preparation of this circle Mr. Mooney had the assistance of several survivors of that famous council. Among the famous Indians present were Natchi, the chief of the Apaches, and his noted head man, Geronimo; also White Swan, a Crow, who was a scout under Gen. Custer, and who was badly wounded at the fight of Little Big Horn. It was considered doubtful as to whether it would be possible to ever again secure the presence of so many different representatives of the fast-vanishing aboriginal inhabitants of this country.

Stamps and Medals.—The Post Office Department issued a commemorative series of stamps in recognition of the Exposition. A picture indicative of the development of the region beyond the Mississippi river formed the center of the stamp. The denominations and views were as follow:

One-cent, "Marquette on the Mississippi," from a painting by Lamprecht, representing Father Marquette in a boat on the upper Mississippi preaching to the Indians. Color, dark green.

Two-cent, "Farming in the West," from a photograph representing a Western grain field with a long row of plows at work. Color, copper red.

Four-cent, "Indian hunting Buffalo," reproduction of an engraving in Schoolcraft's "History of the Indian Tribes." Color, orange.

Five-cent, "Frémont on the Rocky Mountains," from a wood engraving, representing the pathfinder planting the United States flag on the highest peak of the Rocky mountains. Color, dark blue.

Eight-cent, "Troops guarding Train," representing a detachment of United States soldiers conveying an emigrant train across the prairies, from a drawing by Frederic Remington. Color, dark lilac.

Ten-cent, "Hardships of Emigration," from a painting by A. G. Heaton, representing an emigrant and his family on the plains in a "prairie schooner," one of the horses having fallen from exhaustion. Color, slate.

Fifty-cent, "Western Mining Prospector," from a drawing by Frederic Remington, representing a prospector with his pack mules in the mountains searching for gold. Color, olive.

One-dollar, "Western Cattle in Storm," representing a herd of cattle, preceded by the leader, seeking safety from a gathering storm, reproduced from a steel engraving after a picture by J. Mac Whirter. Color, light brown.

Two-dollar, "Mississippi River Bridge," from an engraving of the great bridge over the Mississippi at St. Louis. Color, sapphire blue.

The issue included 100,000,000 1-cent, 200,000,000 2-cent, 5,000,000 4-cent, 2,000,000 8-cent, 5,000,000

10-cent, 500,000 50-cent, 50,000 \$1, and 50,000 \$2. The stamps were discontinued on Dec. 31, 1898.

The commemorative medal issued by the exposition authorities was unique and characteristic, and as usual was struck under the direction of the United States Treasury Department, by whom the dies were made. The obverse showed a medallion made after a composite head, the creation of an eminent artist, from the photographs of 48 beautiful young women, natives of the 24 Western States and Territories, thus idealizing the highest type of Western young womanhood. The legend was "Trans-Mississippi Exposition, Omaha, 1898." The reverse side bore in low relief a spirited group showing a typical American Indian mounted on a pony, in the act of spearing a buffalo. It represented a scene suggestive of the conditions existing in the West before the encroachments of the white man drove both Indian and buffalo into the mountains and finally accomplished their almost complete extinction. Below this design was "1848," being the date, half a century ago, when the Indian hunted the buffalo undisturbed.

Opening Exercises.—The opening of the Trans-Mississippi Exposition was set for June 1. On that day a civic procession two miles long marched to the Arch of States from the business center of Omaha, under the grand-marshalship of Major T. S. Clarkson, assistant to President Wattles and general manager of the fair. Owing to the war with Spain the escort of the military was omitted, except in so far as its place was filled by the High School Cadets and the Sons of Veterans. There were four divisions in the procession, and the organized bodies that marched included representatives from various fraternal and benevolent organizations. The Exposition officials, State and county officers, and invited guests were conveyed in carriages. The procession entered the grounds just before noon and proceeded to the wide space at the east end of the main court, where a temporary platform had been erected. This was occupied by the officials and distinguished visitors, the United States Marine Band, and the Exposition chorus. The "Star-Spangled Banner" was sung by the chorus to the accompaniment of the band, and after an invocation by Rev. Samuel J. Nichols, of St. Louis, addresses were delivered by President Wattles, Hon. John L. Webster, of Omaha, Hon. John N. Baldwin, of Council Bluffs, and the Hon. Silas A. Holcomb, Governor of Nebraska, and then came the following telephone message direct from President McKinley, who, with Vice-President Hobart, Speaker Reed, the Nebraska congressional delegation, and members of the Committees of Ways and Means of the House and Appropriations in the Senate, were gathered in the reception parlors of the White House:

"The events of the memorable half century which the Trans-Mississippi and International Exposition commemorates are interwoven with the history of the whole nation, and are of surpassing importance. The mighty West affords most striking evidence of the splendid achievements and possibilities of our people. It is a matchless tribute to the energy and endurance of the pioneer, while its vast agricultural development, its progress in manufactures, its advancement in the arts and sciences, and in all departments of education and endeavor, have been inestimable contributions to the civilization and wealth of the world. Nowhere have the unconquerable determination, self-reliant strength, and sturdy manhood of our American citizenship been more forcibly illustrated. In peace or war the men and women of the West have ever been in the vanguard. I congratulate the management upon its magnificent enterprise, and assure all who

participate in this undertaking of the deep interest which the Government has in its success."

At the conclusion of this message President McKinley touched the electric button that gave life to the waiting dynamos, and the Exposition was formally declared open to the world.

Exhibits.—There were 4,642 separate exhibits, which were distributed among the various buildings, including some from foreign sources that were housed in a small building north of the Administration Arch. Also 245 concessions and privilege contracts were made, which yielded a revenue of \$306,365.45.

Admissions and Attendance.—The price of admission was 50 cents for adults and 25 cents for children, except on Sundays and Monday and Thursday evenings, when the charge was 25 cents for adults and 15 cents for children, which rate also prevailed on Oct. 31, the closing day. The number

ber, provided that the presence of President McKinley and his Cabinet could be secured. The scheme was agitated in the local newspapers, and on Aug. 20 the President said: "I accept the invitation. . . . It seems to me proper that a President who has conducted a successful war should manifest his appreciation of the achievements and arts of peace as illustrated by the Trans-Mississippi Exposition." This acceptance led to the following action on Aug. 22 by the Exposition authorities: *Resolved*, That the Trans-Mississippi and International Exposition hold a Peace Jubilee under its auspices on the Exposition grounds at Omaha, Neb., from the 10th day to the 15th day of October, 1898, to celebrate the victories of the army and navy in the war between the United States and Spain and the terms of the proposed peace in the protocol between the two nations entered into by approval of the national administration."



EXHIBITION BY LIFE-SAVING SERVICE.

of persons visiting the Exposition was: Paid, 1,778,250; free, 835,258; total, 2,613,508. The record of admissions on the more important days was: June 1, Opening Day, 27,998; Sept. 22, Modern Woodman's Day, 52,725; Oct. 11, Government Day, 48,051; Oct. 12, President's Day, 98,845; Oct. 13, Army and Navy Day, 49,710; and Oct. 31, Omaha Day, 52,725. The largest single week was that of Oct. 7-15 (Jubilee Week), when the admissions amounted to 314,151, for which \$116,320.10 gate receipts were received. The total gate receipts during the Exposition were as follow: Preliminary period, \$20,074.37; Exposition period, \$781,441.10; total, \$801,515.47.

Peace Jubilee.—When the defeat of Cervera's fleet off Santiago made the result of the war with Spain a foregone conclusion, it was suggested to the Exposition authorities that it would be a wise plan to celebrate the conclusion of the hostilities by a peace jubilee, and accordingly it was decided to hold the same during the second week of Octo-

A committee headed by Senator Thurston was appointed to invite the President, his Cabinet, the members of the Supreme Court, members of the Senate and of the House of Representatives, foreign ministers and ambassadors, governors of States and Territories, officers of the army and navy, and other distinguished citizens, as well as the President of Mexico and the Governor General of Canada. Invitations to the number of 3,000 were sent to the governors of the States, and 2,000 were sent to the mayors of the larger cities. The President having designated Wednesday, Oct. 12, as the time when he would visit the Exposition, that day was appropriately designated as President's Day. The remaining days of the week were as follow: Monday, Mayor's Day; Tuesday, Governor's Day; Thursday, Army and Navy Day; Friday, Civil Government Day; and Saturday, Children's Day. Interest, however, naturally centered on Wednesday, and on that occasion 98,470 persons were registered as passing into the grounds. President Mc-

Kinley arrived in Omaha on Tuesday attended by a brilliant suite, including Secretaries Gage, Smith, Bliss, and Wilson; Gens. Miles, Sumner, and Greeley; and ministers from the Argentine Republic, Brazil, China, and Korea, as well as other Government officials. He was escorted to the Omaha Club, where apartments had been provided for him, and on Wednesday was conducted, with visiting guests, to the Exposition grounds. When in their itinerary the Plaza was reached more than 75,000 people were gathered to greet the President. After an invocation by Rev. John McQuoid, Mr. Wattles presented President McKinley, who spoke eloquently, and on that occasion first indicated his opinion in regard to the acquisition of new territory, saying: "Shall we deny to ourselves what the rest of the world so freely and so justly accord to us? The men who endured in the short but decisive struggle its hardships, its privations, whether in field or camp, on ship or in the siege, and planned and achieved its victories, will never tolerate impeachment, either direct or indirect, of those who won a peace whose great gain to civilization is yet unknown and unwritten."

He was followed by Postmaster-General Smith, after which the other members of the Cabinet and Gen. Miles were informally introduced. The tour of the grounds was continued, and after a luncheon the Government Building was reached, where a short reception was held, and then the Indian encampment was visited, where a sham battle was given specially in honor of the visit of the Great Father. There were no public ceremonies on the remaining days of the week, although an unusually large attendance was had, and many distinguished persons visited the Exposition as guests of the authorities.

Receipts.—The total receipts of the Exposition from all sources up to Dec. 1 were \$1,924,077.69, of which amount the gate receipts were \$801,575.47 and the receipts from concessions \$306,365.45. The money on hand, Dec. 1, after the payment of 75 per cent. dividends to those stockholders who had paid up their subscriptions in full was \$115,858.79, a sufficient amount to return to all stockholders the remaining 25 per cent. subscribed by them. This financial result is unparalleled in the history of expositions.

Literary and Artistic Features.—The Exposition authorities have appropriated \$10,000 for the compilation and publication of an authorized illus-

trated history of the Exposition. During its life illustrated circulars were issued from time to time giving information of the principal features. The "Omaha Bee," whose editor, Edward Rosewater, was foremost in giving publicity to the Exposition, published two special illustrated numbers, giving a complete history of the fair; the first, on the opening day, June 1, and the second on the President's Day, Oct. 12. The larger magazines all gave accounts of the Exposition, accompanied with illustrations made by Mr. F. A. Rinehart, the official photographer. The photographs that illustrate the present article were taken by Mr. J. B. Morrey, who was connected with the Government Building, and to whose courtesy we are indebted for their use.

Greater America Exposition.—Soon after the close of the Exposition the desirability of holding during 1899 a Greater America Exposition was discussed. Accordingly a meeting was held on Dec. 15, when in sympathy with the statement included in the following petition, a permanent organization was affected.

"In view of the extension of the domain of the United States, which has created an irresistible popular demand for information concerning the people and resources of Cuba, Puerto Rico, Hawaii, and the Philippine Islands, and as the grounds and buildings devoted to the recent Trans-Mississippi Exposition are eminently adapted for an exposition illustrative of the manners, habits, and industrial capacity of the people of those countries, the undersigned citizens of Nebraska earnestly favor the proposed Greater America Exposition at Omaha in 1899, and respectfully urge our representatives in Congress to procure the necessary legislation for the recognition and participation of the United States Government and such national aid as may be deemed essential to its success."

Subscriptions exceeding \$100,000 were received, and a committee was named to draft a form of government and to secure the incorporation of the stockholders of the new exposition. The committee was as follows: Edward Rosewater, W. S. Poppleton, Herman Kountze, Herman Cohen, Frank Murphy, Charles W. Wilhelm, P. E. Iler, Thomas Kilpatrick, George A. Joslyn, J. H. Millard, Edward W. Nash, F. J. Coates, William R. Bennett, Dudley Smith, G. M. Hitchcock, T. P. Cartwright, N. A. Kuhn, Frederick Pattenrath, Samuel Gamble, George W. Kelley, J. J. Brown, J. H. Dumont, W. F. White, George P. Bemis, and Samuel Burns.

F

FARMERS' CONGRESS. More than a thousand delegates, who had been appointed and commissioned by the Governors of the several States and Territories as members of the Farmers' National Congress of the United States, convened in the auditorium of the Chamber of Commerce in its eighteenth annual session, at Fort Worth, Texas, Dec. 6, 1898. The Congress was in session four days. At 10 o'clock the Congress was called to order by ex-President Benjamin F. Clayton, who introduced the Hon. William D. Hoard, of Wisconsin, the president-elect. The permanent officers of the organization are as follow: President, Hon. William D. Hoard; Vice-Presidents, F. L. Maxwell, of Louisiana, and C. A. Wieting, of New York; Secretary, John M. Stahl, of Chicago, Ill.; Assistant Secretaries, D. O. Lively, of Texas, George A. Stockwell, of Rhode Island, and A. H. Dunlap, of Michigan; Treasurer, N. G. Spaulding, of New York; Executive Committee, Benjamin F. Clay-

ton, of Iowa, T. E. Orr, of Pennsylvania, H. E. Heath, of Nebraska. When the Congress had been called to order Bishop A. C. Garrett, of Dallas, offered prayer.

The Hon. John F. Henderson, acting mayor of Fort Worth, then welcomed the delegates in behalf of the city.

The Hon. Charles A. Culbertson, Governor of the State, extended a welcome in behalf of Texas. The addresses of the mayor and the Governor were responded to by Secretary Stahl and ex-President Clayton.

The president of the Congress in the course of his annual address said: "I congratulate you on the increased hope and encouragement that has come to the homes of the great mass of American farmers the past year. In almost every branch except cotton farming there has been a manifest improvement in prices. Let us hope that our brethren of the cotton field have gained something

in economic knowledge, which is, after all, the keynote of profit everywhere.

"Our agriculture is becoming nationalistic. This Farmers' Congress is one of the proofs of this assertion. The march of study, investigation, knowledge, have opened to the farmer a new view of the marvelous array of forces which surround him. Both the farmer and the men of science are coming to see that the farm constitutes a magnificent domain of intellectual conquest. We are just beginning to feel as a people that agriculture is an intellectual as well as a manual pursuit; that from the humblest tenant to the lordliest ranchman progress and profit depend on mental comprehension of the principles involved, and an energetic obedience to that comprehension. Comprehension means intellect; obedience means business. Some men are all intellect and no work; others are all work and no intellect. The true farmer unites both. Our common schools recruit the academy, the college, and the university, and they, in turn, recruit every profession but farming. Our young men flee to the towns and cities because we have educated them to do so. Nearly every European country is putting forth strenuous efforts to stop this tendency by teaching the elements of scientific agriculture in the common schools. It can be done as easily as the teaching of the elements of scientific arithmetic, or chemistry, or philosophy.

"The Farmers' National Congress is a patriotic body. The meaning of patriotism is self-sacrifice. Without sacrifice there can be no patriotism. The very fact that you have assembled here, many from a great distance and at your own expense, gives proof of your public spirit, your anxiety to benefit the cause of agriculture, and of your practical patriotism.

"Heretofore the cry has been more land, until the farm has become bigger than the farmer. This makes expensive farming. The necessities of the hour say, make the farmer bigger than the farm. The progress of economic thought and understanding has enriched every other class of society more than the farmer. A number of our farm products are produced just as expensively as they were forty years ago. Ancient farming no longer pays. Our ability to retain the markets of the world depend entirely upon our economic skill. Our talk about cheap land has, I fear, cheapened our thought and our estimate of what is involved. Expansion in acres or in national possessions will not help us. The expansion of the brain, skill, and judgment of the farmer will help. Let us never lose sight of, or forget, that the great objective point of all farmers' organizations is to make better farmers."

The usual standing committees were appointed and the routine business was transacted.

The Constitution has been amended in several particulars, mainly of minor importance.

Resolutions were adopted in favor of the Nicaraguan Canal, rural free mail delivery, good roads and State aid in building them, laws against noxious weeds, liberal appropriations for the improvement of rivers and harbors, an American mail service to foreign countries in American steamships, more stringent laws against food adulteration, the development of the beet-sugar industry, laws providing that butterine, oleomargarine, and similar products shall not be exempt from the laws of any State by reason of being introduced into that State in the "original package," a law to prohibit the false branding of any food product as to the State in which it is produced or manufactured, the teaching of the elementary principles of agriculture in the common schools, farmers' institutes, laws requiring that the true name of any adulterated article of food be stamped thereon when exposed for

sale, more stringent laws against Texas fever, textile departments in connection with State agricultural colleges, and the bill to give the Interstate Commerce Commission adequate powers.

Many addresses were delivered, covering nearly every phase of farm industry. Among these the most prominent were that of Booker T. Washington, of Tuskegee, Ala., a promoter of industrial education of the negro race, that of Señor Miguel J. Romero, of Venezuela, and of Señor F. M. Del Rio, of the republic of Mexico.

The Legislature of Massachusetts had made an appropriation to cover the expense of the Congress, provided it would come to Boston in 1899, and that city was selected. After a free excursion of four days via Houston, Galveston, Waco, and back to Fort Worth, the Congress adjourned.

FINANCIAL REVIEW OF 1898. Political tension, more or less acute, prevailed in Europe, America, and Asia throughout the greater part of the year, though there was a remarkable absence of severe financial disturbance as the result of these political troubles. The occupation of Port Arthur by a Russian naval force, which was accomplished in December, 1897, was followed by preparations for the permanent retention of that port, and by further aggressive movements by Russia, which, early in the year, seemed to threaten a rupture of friendly relations between that country and England. Happily, however, the differences were adjusted and, through diplomatic representations and conferences, harmony was restored. One event was the deposition of the Emperor of China on Sept. 19 by the Empress Dowager, which was apparently the result of the influence of Russia. Germany and France retained the territorial and commercial concessions in China which they secured early in the year, England also retaining those privileges which had been previously enjoyed, and likewise securing important railway concessions. One notable event in the near East was the enforced evacuation, Nov. 14, of Crete by the Turks, at the demand of the allied naval forces, and the subsequent installation of Prince George of Greece as the High Commissioner of that island for the powers. An Anglo-Egyptian expedition, under command of Gen. Kitchener, captured Omdurman, Sept. 4, and disclosed the presence at Fashoda, south of Khartoum, of a French force under Major Marchand, which was held by the British general to be an unfriendly intrusion. The attitude of the British Government regarding this intrusion by Major Marchand caused intense irritation in France, resulting in a ministerial crisis. Active warlike preparations by England gave some color to the rumors that the situation would soon become acute and the financial markets at London and Paris grew tense, the bank discount rates advancing and international securities declining. The situation grew less grave toward the end of October, though during the following month the internal troubles in France at intervals threatened a revolution. The outbreak of war between the United States and Spain seemed likely to provoke intervention by France and Germany. The holdings in France of the Spanish external debt were very large and German bankers were also, to a great extent, interested in these securities. Hence the motive for possible intervention. The Spanish Government early in the year sought the material assistance of these powers, but the friendly attitude of England toward this country effectually prevented active interference, and later assurances were given of an intention to observe strict neutrality. The effect in the European markets of the war was chiefly observable in the fluctuations in Spanish 4-per-cent. external bonds, these being at first sharply depressed, and then irregularly par-

tially recovering when it was seen that the Spanish dynasty was not imperiled, and also that the interest on these securities would continue to be paid though the war had involved Spain in financial ruin.

Though there was some disturbance in our money and security markets following the disaster to the "Maine" in the harbor of Havana, Feb. 15, and also immediately succeeding the declaration of war, the derangement was only temporary owing to the strong financial position which the country enjoyed, and after the destruction of Admiral Montejó's fleet in the harbor of Manila by Commodore Dewey, on May 1, the utmost confidence was felt in the speedy termination of the war. The annihilation of Admiral Cervera's fleet at Santiago de Cuba, on July 3, and the surrender of the Spanish Gen. Toral, July 17, were quickly followed by overtures for Spain for peace. The war ended Aug. 12, one hundred and ten days after its beginning, and the treaty of peace was signed at Paris, Dec. 10, one hundred and twenty days after the signing of the protocol and seventy days after the assembling of the Peace Commissioners. Puerto Rico was formally surrendered by the Spanish on Oct. 18, and at the end of the year preparations were completed for the surrender of Havana.

On March 9 both houses of Congress unanimously placed at the disposal of the President \$50,000,000, to be employed at his discretion in the national defense. This fund being inadequate, Congress, on June 13, passed the war revenue act, authorizing a 3-per-cent. popular loan, not to exceed \$400,000,000, and also provided for additional internal-revenue taxes. The law required that the bonds should be issued at par, and that in allotting said bonds the several subscriptions of individuals should be first accepted and the subscriptions for the lowest amounts should be first allotted. Subscriptions for \$200,000,000 of the bonds were opened on June 13, and on the closing of the books, July 14, it was found that the total of subscriptions for \$500 and less was \$100,444,560, and the total in greater amounts than \$500, including certain proposals guaranteeing the loan, amounted to more than \$1,400,000,000, the loan being subscribed for seven and a half times over. The number of subscriptions for \$500 or less was 232,224, and the number for more than \$500 was 88,002. Allotments were made to 325,000 persons, but from the moment the bonds were issued a movement of concentration began, and gradually the original holdings of about 116,000 subscribers passed into the ownership of a little more than 1,000 persons, firms, and corporations. Toward the end of December the market price of the bonds was 107, indicating that the compulsory offering of the bonds at par resulted in a loss to the Government of a premium of at least 5 per cent., and, in the opinion of the Secretary of the Treasury, the whole loan of \$200,000,000 could have been sold, at the moment when the authorizing act was approved, at a premium of probably 2½ per cent. In order to avoid derangement to the money market resulting from payments for the bonds, provision was made for settlements in installments of subscriptions for amounts of \$500 and over, and the Treasury Department also made liberal selections of specially designated depository banks throughout the country for the custody of public money. Consequently the money market was disturbed for only a brief period early in the fall, when there was a concurrent drain of money to the West for crop purposes and into the Treasury for bonds. After bond settlements were practically completed the holdings of the national bank depositories were about \$97,000,000, of which nearly \$50,000,000 were in banks

in New York city. At the end of the year the total deposits of public money in the banks amounted to \$94,085,680.

The expenses of the war with Spain were officially estimated by the Treasurer of the United States at \$164,932,228 up to the end of October. This result was obtained by deducting from the total expenditures of the War and Navy Departments the cost of the peace establishments of the previous year. Though the disbursements by the State Department were not included in this estimate, it was regarded as probable that the total war expenditures to the date above mentioned would not materially exceed the amount here stated. Adding the payments during November would make the total \$177,150,229. The disbursements in December were about \$16,000,000, making the total war expenditures for the year approximately \$193,000,000.

The following tabular survey of the economical conditions and results of 1898, contrasted with those of the preceding year, is from the "Commercial and Financial Chronicle."

ECONOMICAL CONDITIONS AND RESULTS.	1897.	1898.
Coin and currency in the United States, Dec. 31.....	\$1,948,665,430	\$2,179,019,124
Bank clearings in the United States.....	\$57,516,000,000	\$68,888,948,580
Business failures.....	\$154,800,000	\$130,662,899
Imports of merchandise (year).....	\$742,631,350	\$634,958,229
Exports of merchandise (year).....	\$1,099,743,554	\$1,255,494,368
Gross earnings 206 roads (year).....	\$1,087,502,518	\$1,117,615,560
Railroad construction, miles.....	1,650	3,018
Wheat raised, bushels.....	530,149,168	675,148,706
Corn raised, bushels.....	1,902,967,833	1,924,184,660
Cotton raised, bales.....	10,257,030	10,745,108
Pig iron produced (tons of 2,240 pounds).....	9,652,680	11,773,934
Anthracite coal (tons of 2,240 pounds).....	41,637,866	41,809,751
Petroleum (runs) production, barrels.....	34,625,386	.....
Immigration into the United States (fiscal year).....	280,832	229,233

The foreign commerce of the fiscal year ending June 30, 1898, was phenomenal. Exports of domestic products and manufactures amounted in value to \$1,210,291,913, while imports were \$616,049,654, an excess of exports over imports of \$594,242,259. The value of exports of agricultural products alone was \$853,683,570, exceeding by \$54,355,338 the highest ever before recorded. Exports of manufactures were \$290,697,354, also the greatest on record. One notable fact shown by the foreign-trade statement was that for the first time in our history exports of domestic manufactures were larger than the imports of foreign manufactured goods, while the total exports of the fiscal year were twice as great as the imports, and the favorable trade balance was more than double that of any previous year. The imports of gold for the fiscal year were larger than in any preceding year, amounting to \$120,391,674, while the exports were smaller than in any year in the present decade, being only \$15,406,391, making the net imports \$104,985,283. Domestic gold deposits at the mints were \$69,881,120 and foreign gold deposits \$73,687,448. The improvement in foreign-trade conditions continued after the close of the fiscal year. The returns for November showed the unprecedented total of \$129,783,512 exports, while imports were \$52,100,560, making a favorable trade balance of \$77,672,952. The statement for eleven months of the calendar year ending Nov. 30 showed exports of \$1,117,681,199, and imports \$579,844,153, a favorable trade balance of \$537,837,046. Net gold imports for the eleven months were \$134,421,054, and net silver exports \$22,048,703. The

statement for twelve months of the calendar year ending Dec. 31 showed merchandise exports of \$1,255,494,358 and imports of \$634,958,229, making the favorable trade balance on the merchandise movement \$620,536,129. Exports of gold were \$16,194,954 and imports \$158,151,852, a net import of \$141,956,898. Exports of silver were \$53,797,104 and imports \$29,126,256. Exports of merchandise, gold and silver, \$1,325,486,416, imports \$822,236,337, making an apparent favorable balance of \$503,250,079. Exports of manufactures were \$307,924,994.

Money.—The most striking feature of the money market this year was the abundance of gold coin in the Treasury, in the banks of this city, and in circulation. The net gold held by the Treasury at the end of 1897 was \$160,911,547, while at the close of the current year it was \$246,529,176. On May 4, 1898, the net gold was \$181,240,389, but the extraordinary expenses of the war caused a reduction by June 18 to \$163,474,057. The proceeds of the war loan, which were largely paid in gold, afforded relief, the reserve grew rapidly, and on Oct. 7 it was \$245,063,796, the highest point ever attained. Then followed a reduction, due to the increased use of gold in disbursements, but in November the reserve recovered, and on Dec. 17 it stood at \$246,027,638. At the beginning of the year the associated banks of New York held \$106,588,500 specie, largely consisting of gold. By July 2 this had increased to \$186,070,200. Then came a reduction, caused by payments for the 3-per-cent. bonds, to \$128,899,800 by Sept. 17, followed by a recovery to \$169,756,300 by Dec. 31. The amount of gold reported by the Treasury in circulation Jan. 2, 1898, was \$547,568,380, and on Jan. 2, 1899, \$667,796,579, a gain during the year of \$120,228,219. Gold was so abundant during the last half of the year that payments of the metal for duties at the New York customhouse were very largely in this coin, reaching 80.5 per cent. in December. Still another notable fact is that there was a wide distribution of money throughout the country, and even in comparatively remote agricultural sections the bank reserves were so large that money ruled at abnormally low rates.

The condition of the New York Clearing House banks, the rates of interest, exchange and silver, and the prices of United States bonds on Jan. 3, 1899, compared with the same items for the preceding two years, are given in the following table:

\$635,572,800 by Oct. 1, loans were again increased, reaching the unprecedented total of \$718,308,700 on Dec. 31. The movement in legal tenders was the reverse of that for specie, these notes being more desirable for circulation. The amount held at the opening of the year was \$87,074,200. This was increased to \$104,150,300, the maximum, by Feb. 4. Then came a decrease to \$49,029,200, the minimum, by May 7, followed by an increase to \$63,462,000 by July 2, and the amount at the end of the year was \$55,184,100. Deposits were \$685,592,500 at the beginning of the year, rising to \$738,683,300 by Feb. 11, falling to \$658,503,300, the minimum, April 23, and reaching the unprecedented maximum, \$823,037,700, Dec. 31. The surplus reserve was \$22,264,575 at the beginning of the year. The maximum, \$62,206,250, was reached June 18, and the minimum, \$4,240,400, Sept. 17. The amount at the close of the year was \$19,180,975.

Money on call loaned at the Stock Exchange during the year at 6 per cent. and at 1 per cent. The higher rate was recorded during the first week in January and again in September, the market being influenced at the first-named period by operations incident to the January settlements, and in September by the concurrent drain of money from the banks into the Treasury for bond payments and to the interior for the crop movement. With these exceptions, the money market had an easy tendency, and the weekly average was from 1½ per cent. to 3¼ per cent., the latter in April, until the fall months, when the average was about 2½ per cent., reflecting an increased demand resulting from the large business in stocks and other securities. With the exception of a brief period during March and in April, when the situation was disturbed by the events anterior to the outbreak of the war with Spain, money on time was in abundant supply, and though the demand was only fair, rates were not unusually low. The apprehension of widespread derangements of the money market as the result of war, which led to large withdrawals of deposits by the interior banks and more or less hoarding of money, was quickly dispelled after the signal victory of Commodore Dewey at Manila, and rates for sixty-day money, which ranged from 3¼ per cent. to 6 per cent. in March and April, fell to 3 per cent. in May, and to 2 per cent. in July, while ninety-day to six-months' money dropped from 6 per cent. in March and April

ITEMS.	1897.	1898.	1899.
NEW YORK CITY BANKS:			
Loans and discounts.....	\$491,375,900	\$607,781,800	\$718,308,900
Specie.....	76,342,900	104,730,700	173,442,100
Circulation.....	19,600,100	15,507,300	15,658,200
Net deposits.....	530,736,000	675,064,300	899,861,700
Legal tenders.....	59,640,900	79,824,100	56,803,700
Required reserve.....	182,696,250	168,766,050	206,720,425
Reserve held.....	166,968,200	184,554,800	280,250,500
Surplus reserve.....	\$33,286,950	\$15,788,750	\$23,530,375
MONEY, EXCHANGE, SILVER:			
Call loans.....	2	3½	2 to 2½
Prime paper, 60 days.....	3½ to 4	4 to 5	3 to 3½
Silver in London, per ounce.....	29½	29½ d.	27½ d.
Prime sterling bills, 60 days.....	\$4 84 to \$4 84½	\$4 88	\$4 88½
UNITED STATES BONDS:			
Currency 6s, 1899.....	102½ bid	103½ bid	102½ bid
4½s coupon, 1891 *.....	96½ bid	99½ bid	99½ bid
4s coupon, 1907.....	111 to 111½	114½ bid	113½ bid

* Extended 2 per cents.

The loans of the New York associated banks at the beginning of January were \$609,776,900. After rising to \$646,915,200 by Feb. 19, the disturbances occasioned by the disaster to the "Maine" caused a reduction to \$570,198,100, the minimum of the year, by April 30. Then confidence was restored by the naval victory at Manila, and loans rapidly increased to \$672,173,900 by Sept. 3. After a reduction to

to 3 per cent. in May, and to 2½ per cent. in June. In the fall rates were a little firmer, ruling at 2½ to 3 per cent. for sixty-day, and at 3½ to 4½ per cent. for ninety-day to six-months', until December, when money for the last-named periods was obtainable at 3 per cent. Commercial paper commanded from 3 per cent. to 6 per cent. for sixty- to ninety-day indorsements, until May, influenced by the conditions

above noted, but after May rates grew easier and the range for the remainder of the year for indorsements was from $2\frac{1}{2}$ per cent. to $4\frac{1}{2}$ per cent., the former in December and the latter in September. First-class four to six months' single-name paper ranged from $3\frac{1}{2}$ per cent. to 7 per cent. until May, and from $3\frac{1}{2}$ per cent. to 5 per cent. thereafter, being easy at $3\frac{1}{2}$ to $3\frac{3}{4}$ per cent. in December. The general revival of business and growth of confidence which followed the victories in July and the ending of the war enabled collections by merchants to be promptly made, and therefore there was comparatively little need for borrowing, and hence the offerings of commercial paper were small. At the same time the demand for paper was quite general, not only from New York and Eastern banks and other institutions, but from banks in the chief Western cities, who thus sought to employ their increasing balances. Investments were also made by these Western institutions in railroad and other mortgages, and in sterling exchange, and in the last two months of the year reports were quite general of abnormally large balances held by banks in comparatively remote sections of the country, and of reductions in rates of interest on deposits, indicating an unexampled plethora of unemployed money. One notable feature was the large clearings of the associated banks of New York. On Nov. 15 the clearings amounted to \$240,800,402, and on Dec. 13 to \$233,468,989. The clearings for the week ending Dec. 17 were \$1,119,883,255, and in the following week the total was \$1,022,438,939. The daily average during the week ending Dec. 17 was \$186,647,209, and the largest previous daily average was \$159,232,190 in 1881.

The following is the New York Clearing House statement of totals at the beginning of each quarter of 1898 and at the end of the year:

DATE.	Loans.	Specie.	Circulation.	Deposits.	Legal tenders.
January 8.....	\$609,776,900	\$106,588,500	\$15,871,900	\$685,592,500	\$87,074,200
April 2.....	595,851,200	141,556,200	13,865,500	682,236,800	64,723,800
July 2.....	620,988,800	186,070,200	14,659,800	750,074,600	63,462,000
October 1.....	635,572,800	186,814,400	15,498,400	702,128,200	54,544,800
December 31.....	718,808,700	169,756,300	16,270,600	823,087,700	55,184,100

Stocks.—The stock market was favorably influenced in January by the improvement in trade conditions, by ease in money, and by increased railroad earnings, and there was an exceptionally good demand for railroad bonds, sales of which were almost unprecedented in magnitude, reaching a total for the month of \$92,870,210. The Vanderbilt stocks were the favorites with speculators and investors, and Lake Shore and New York Central were directly affected by the proposed merger of the two roads. The completion of payments to the Government for the Union Pacific road caused the stock of this company to advance sharply, and the large increase in earnings and the acquisition of the Seattle, Lake Shore and Eastern Railroad by the Northern Pacific stimulated buying of the stock of the last-named road. Among other influences operating on the market were the success of the Illinois Central bond negotiation, the offer of refunding bonds by the Rock Island, the purchase by the Erie of the New York, Susquehanna and Western, and the declaration of a dividend by the Mobile and Ohio. The discussion of the Cuban question in the House of Representatives, and the dispatch of the "Maine" to Havana served to depress the market only temporarily, and the tone was generally strong at the close of the month. After opening active and higher in February there was an unsettling fall caused by the De Lome incident, followed by a general decline on news of the disaster to the "Maine" in the harbor of Havana, and the

tendency was downward until near the end of the month, when European buying of our securities aided in a recovery. The rally was feverish, however, the indications pointing to a speedy rupture of friendly relations between the United States and Spain. The market was almost continuously weak during March, influenced by the Cuban situation. The dispatch of two transport vessels by the Government with supplies for the starving *reconcentrados* at first caused some friction at Havana, and the reported demand by Spain that Gen. Lee, the United States consul general, be recalled, created a feeling of uneasiness which was reflected in the stock market. The action of Congress in unanimously placing \$50,000,000 at the disposal of the President for strengthening the national defenses, and the immediate preparations for war on the part of the Government, had a greatly disturbing effect upon the stock speculation. The market was unsettled and lower until the 28th, when, concurrently with the transmission to Congress by the President of the report of the Court of Inquiry on the "Maine" disaster, there came rumors that the Spanish Government had consented that the United States should be allowed to feed the starving *reconcentrados*, and had also made other material concessions. These rumors caused a sharp upward reaction in the market, but immediately after news that Spanish war ships had left Cartagena, and that an unsatisfactory reply had been received by this Government to its demands upon Spain, distinctly foreshadowed the outbreak of war, and stocks were unsettled and weak at the close of the month. The market was less excited early in April, notwithstanding the rupture of diplomatic relations with Spain, mainly for the reason that our foreign trade position was exceptionally strong, giving us control of large amounts of foreign gold, thus furnishing

assurance that our finances would not be disturbed by war. Moreover, preparations for a conflict were being actively made, and the feeling prevailed that, owing to the disparity in strength of the combatants, the war would be of brief duration. The President's message, urging intervention in Cuba and asking for authority to use the army and navy for this purpose, was followed by the adoption of resolutions by Congress practically in accordance with the President's suggestion, and diplomatic relations with Spain ended on the 21st. These events had comparatively little influence upon stocks, and the market was almost stagnant at intervals until news came of captures of Spanish vessels by the blockading fleet off Cuba and the bombardment of Matanzas, whereupon there was a partial recovery, and the speculation was more active for the remainder of the month. News of the decisive victory won by Commodore Dewey on May 1, involving the destruction of the Spanish fleet at Manila, caused a sharp advance in the stock market on the following day, and on the receipt on May 7 of official details of the engagement there was a further rise in prices. Speculators and investors manifested great confidence in the situation; purchases were large, not only for domestic but for European account, and the tendency was upward thereafter, especially in the Granger stocks, which were affected by the encouraging outlook for the crops. Until the Spanish fleet commanded by Admiral Cervera was definitely located in Santiago harbor there was some apprehen-

sion lest an attack might be made upon some of the Northern cities, but the stock market was only temporarily disturbed, and the tone was strong at the close of the month. The chief favorable influences operating upon stocks early in June were easy money, continued improvement in trade conditions, and European purchases of leading properties. The speculation gradually grew broader and the tone more confident, and one important feature was the demand for railroad mortgages, notwithstanding the impending authorization of an issue of \$200,000,000 Government bonds. Naval operations were chiefly concentrated upon Santiago de Cuba, with a view to the capture of Admiral Cervera's fleet, while the army, under Gen. Shafter, began a siege against that stronghold, and there appeared to be the utmost confidence felt by speculators in stocks that these operations of the navy and of the army would be successful. The news of the sinking of the "Merrimac" on June 3 by Naval-Constructor Hobson at the mouth of the harbor of Santiago de Cuba had a decidedly stimulating effect upon the market. The collapse of the Chicago wheat deal on June 13 had a disturbing influence upon stocks, for it was feared that it might result in heavy failures and in a derangement of the money market. The realizing sales in stocks were large and the tone was heavy for a few days, but this was succeeded by a more confident feeling, caused by news that the Chicago trouble was likely to be wholly local, and, influenced by the foreign-trade statement for May and by the offering of the Government loan of \$200,000,000 3-per-cent. bonds, the market gradually advanced, and it closed strong with good buying of leading properties stimulated by news of a general movement of our forces upon Santiago de Cuba. The announcement of the destruction of Admiral Cervera's fleet as it was endeavoring to escape from Santiago de Cuba caused a sharp advance in stocks at the beginning of July, and there was a further improvement following news of the surrender of the Spanish army in Santiago to Gen. Shafter. The speculation was less active after the middle of the month, though the tone was generally strong, and it was not greatly affected by the prospects for dearer rates for money resulting from the payments for the 3-per-cent. Government bonds. The opening on the 26th by Spain of negotiations for peace had no specially stimulating influence upon the market, and it was comparatively quiet for the remainder of the month. The signing of the peace protocol and the suspension of hostilities had a marked effect upon the speculation in August, and the tendency was upward on large transactions led by the Grangers. The withdrawal of our troops from Santiago de Cuba, the occupation by Gen. Miles of Puerto Rico, and the capture of Manila encouraged buying of stocks by the arbitrage houses; and though money was more active in consequence of the absorption of the proceeds of the 3-per-cent. bonds by the Treasury, this fact had little depressing effect, mainly for the reason that imports of gold from Europe had been resumed and also that the Treasury Department was seeking to relieve the money market by depositing funds in specially designated depository banks. The stock market was heavy during the greater part of September, influenced by active money, but chiefly by realizing sales in the Grangers and by vigorous bearish demonstrations upon the industrial stocks, principally Sugar and Tobacco. As bank reserves decreased in consequence of the drain into the Treasury of money paid for bonds, and to the interior for the movement of crops, loans upon stock collateral were called, resulting in liquidation of speculative accounts, and the violent declines in industrial properties led to such discrimination against these

stocks by lenders of money as made borrowing upon them difficult. One notable exception to the general declining tendency was Baltimore and Ohio, which advanced on news that the president of the Great Northern had acquired a large interest in this property. The market improved in October, influenced by easier money, encouraging trade reports, and good crop prospects, but the movement was comparatively slow, the most active stocks being Sugar and Tobacco. Toward the end of the month there was a disposition on the part of speculators to await the result of the November election, and some apprehension was felt lest the sound-money and the Administration majority in the House would be materially reduced. This expectant attitude continued during the first week in November. The news of an increased sound-money majority in the Senate, as the result of the election of legislatures favorable to such policy, and the assurances of the retention of an Administration majority in the House of Representatives, caused the market to rise sharply after the election, and it was quite strong, with large transactions in leading stocks and bonds, to the close of the month. The anthracite coal properties were early in November depressed by speculative selling, based upon the unfavorable conditions of the coal trade, but later there was a recovery on rumors of the adjustment of the differences between the various interests. The market was active and higher in December, gradually broadening, and during the second week transactions were unprecedentedly large, reaching 4,311,433 shares of stock and \$39,244,400 railroad mortgages. Though the advance was accompanied by realizing sales, the offerings were promptly absorbed and the tendency was almost uninterruptedly upward. Among the favorites was Federal Steel, which was directly influenced by the improved condition of the iron trade and by the largely increased demand for manufactured products of iron and steel. A very decided impetus was imparted to the speculation by the signing of the peace treaty and also by the foreign-trade statistics for eleven months of the current calendar year. The market was strong to buoyant after the middle of the month, so continuing to the close.

Total sales of stocks at the New York Stock Exchange for 1898 were 112,699,957 shares, against 77,324,172 in 1897; 54,490,643 in 1896; 66,583,232 in 1895; 49,075,032 in 1894; 80,977,839 in 1893; 85,875,092 in 1892; 69,031,689 in 1891; 71,282,885 in 1890; and 72,014,600 in 1889.

The following shows the highest prices of a few of the speculative stocks in 1897, and the highest and lowest in 1898:

STOCKS.	1897.	1898.	
	Highest.	Highest.	Lowest.
American Sugar Refining Co.	159½	146½	107½
American Tobacco	96½	153½	89½
Central New Jersey	103½	99	84½
Chicago, Burlington and Quincy ..	102½	125½	85½
Chicago Gas	108½	112	86½
Consolidated Gas	241½	206½	164
General Electric	41½	97	76
Louisville and Nashville	63½	65½	44
Manhattan Elevated	118	120½	90
Missouri Pacific	40½	46½	22
Omaha	89½	94	65
Pacific Mail	39½	46	21
Reading	89½	23½	15½
Rock Island	97½	114½	80
St. Paul	102	120½	88½
Southern, preferred	38½	43½	25½
Tennessee Coal and Iron	85½	82½	17
Union Pacific	27½	44½	16½
United States Leather, preferred ..	72	75½	58½
Western Union	96½	95½	82½

The following table shows prices of leading stocks at the beginning of the years 1897, 1898, and 1899:

STOCKS.	1897.	1898.	1899.
New York Central	93½	106	123
Erie	15	14½	14½
Lake Shore	152	170½	196½
Michigan Central	90½	101	109
Rock Island	66	89½	114½
Northwest common	102½	121½	142½
St. Paul common	73½	94½	120½
Dela., Lackawanna and Western ..	157	155	157½
Central New Jersey	100½	96	96

The Crops.—There was an improvement in the grain crops of Europe during 1898, but this gain was not sufficiently marked to meet the requirements of these countries without large importations. The wheat crop in the United States was greatly in excess of that of 1897, and indeed the largest on record, exceeding by 63,368,705 bushels the phenomenal yield of 1891. The conditions during the maturing and the harvesting of the staple were exceedingly favorable. The crops of corn and of oats were also in excess of those of the previous year, while the yield of cotton was almost the largest on record. Early in April wheat for May delivery advanced to \$1.25 per bushel, stimulating a rise in the price of other cereals, and the market value of cotton also improved. In May there was a further rise in wheat, on news of the suspension by France and Italy of their import duties, and the price of the May option in the New York market rose to \$1.91 per bushel. Later in the month there was a sudden fall in the price, due to realizing sales based upon the report of the Agricultural Department, which made the general condition of winter wheat 86.5 per cent., against 80.2 at the same time in 1897. The speculative wheat deal in Chicago collapsed in June, and the price of the July option fell from \$1.03 on June 1 to 75½ cents on June 20. The official report of the condition of winter wheat on June 1 was 90.8 per cent., and of spring wheat 100.9 per cent. The report for July 1 showed a decline in the condition of winter wheat to 85.7 per cent. and of spring wheat to 95 per cent., but conditions improved in the following month not only for wheat but for corn, copious rains relieving the drouth. Stocks of wheat in farmers' hands were small at the beginning of the season, the grain was in large request at the harvest, and visible supplies were reduced in August to the lowest in many years. The export demand for wheat was good in September and it grew urgent in the following month, stimulated by the unsettled political situation in Europe, and cash wheat in New York advanced from 73½ cents on Oct. 1 to 80½ on Oct. 24. The improvement in price continued to the end of the year, responding to the large domestic and foreign demand, and the New York market closed on Dec. 31 with wheat 81½ cents, while cash corn was 44½ cents per bushel. Cotton was also strong at 5½ cents per pound for middling uplands.

The following shows the yield and the value of the crops for the years 1897 and 1898 on the basis of the price at New York at the beginning of the years 1898 and 1899:

PRODUCTS.	CROP OF 1897.			CROP OF 1898.		
	Yield.	Price, Jan. 3, 1898.	Value.	Yield.	Price, Jan. 3, 1899.	Value.
Wheat, bushels	590,149,168	\$1 02½	\$542,077,524 28	675,148,705	\$0 81½	\$548,558 322
Corn, bushels	1,902,967,393	33½	642,251,678 48	1,924,184,660	44½	856,262,173
Cotton, bales	10,257,080	5½	304,605,579 00	10,745,108	5½	315,537,547
Total values			\$1,488,934,781 76			\$1,720,358,042

Foreign Exchange.—The exports of merchandise for the year ending Dec. 31, 1898, were \$155,785,313 above those of 1897, and the imports of domestic and foreign merchandise were \$107,637,000

less. The excess of merchandise exports over imports for the year was \$620,536,129, against \$357,113,816 for 1897. The excess of exports over imports of merchandise, coin, and bullion for 1898 was 503,250,079, against \$382,946,395 in 1897. Gold exports were \$141,956,898 in excess of the imports in 1898, against \$253,589 imports in excess of exports in 1897.

Purchases of sixty-day sterling for investment operations, to hold until it ran to sight, which were the feature of the exchange market at the close of 1897, continued to be the feature in January. After opening at \$4.82½ for sixty-day and \$4.85½ for sight, the market gradually advanced to \$4.83½ for the former and \$4.86 for the latter, but on the 10th the tone grew easier, though rates declined only fractionally, and the feature for the remainder of the month was a good inquiry for long sterling and commercial bills resulting from investment operations in exchange. The inherent weakness of the market was disclosed in February, when, influenced by the disturbing events of that month and by the advance in rates for money, investment holdings of sterling were marketed and concurrently there were large offerings of exchange drawn against purchases of stocks for European account. Rates fell heavily and gold began to move from London for New York toward the close of the month. After opening at \$4.83½ for sixty-day and \$4.86 for sight, and advancing to \$4.84 for the former and \$4.87 for the latter by the 14th, there was a decline to \$4.82½ for sixty-day and \$4.85 for sight by the close of the month, and long bills were then freely sold as low as \$4.81½ and short bills at \$4.84. The tendency for exchange was downward during March, rates falling from \$4.82½ for sixty-day and \$4.85 for sight at the opening of the month to \$4.81 for the former and \$4.84½ for the latter by the close. The importations of gold from Europe and from Australia, amounting to \$29,158,400, were remitted for with bills which had been bought for investment, and therefore these remittances had no influence upon the market. In April the exchange market was weak, rates falling from \$4.82 for sixty-day and \$4.85 for sight at the beginning of the month to \$4.80 for the former and \$4.84 for the latter by the 12th, and fractionally reacting by the close of the month, when there was a firmer tone. The Bank of England rate of discount was advanced on the 7th, and this tended to widen the difference between long and short. One feature was the sale of sixty-day bills at \$4.79½ and of sight bills at \$4.83½ on the 21st. Imports of gold from Europe and Australia amounted to \$24,259,791. The tone of the exchange market was firmer in May, and gold imports fell off to \$9,518,990. Easier money here induced some buying of long sterling for investment, purchasers taking advantage of the low prices ruling for these bills early in the month. Rates opened at \$4.81½ for sixty-day and \$4.85 for sight, with sales at \$4.80½ for the former and \$4.84 for the latter, and there was an advance by the close of the month to \$4.85 for sixty-day and \$4.88 for sight.

The movement was irregular in June, the tone being strong early in the month and easier thereafter, partially recovering by the close. Then business in exchange was somewhat restricted, owing to the un-

certainly which existed regarding the effect of the stamp tax upon bills under the new internal-revenue law. Rates opened at \$4.85 for sixty-day and \$4.88 for sight, advanced to \$4.85 $\frac{1}{2}$, falling to \$4.84 $\frac{1}{2}$ for the former, and closed at \$4.85 for sixty-day and \$4.86 $\frac{1}{2}$ for sight. The business in exchange was deranged early in July, first by the inability of bankers to obtain a supply of stamps, and also by a misunderstanding of the requirements of the internal-revenue law. One drawer of exchange, acting under the advice of counsel, affixed a two-cent stamp to demand drafts instead of a four-cent *ad valorem* stamp, and Canadian bankers claimed that drafts drawn in Canada and payable abroad were not taxable in this country. The Commissioner of Internal Revenue on the 7th ruled that demand drafts were taxable as bills of exchange and not as checks, and thereafter all drawers conformed to this ruling, but trading in these bills was greatly restricted. The market opened at \$4.85 for sixty-day and \$4.86 $\frac{1}{2}$ for sight, rose to \$4.85 $\frac{1}{2}$ for the former and \$4.87 for the latter, fell to \$4.84 $\frac{1}{2}$ for sixty-day and \$4.86 for sight, and closed only fractionally higher at \$4.85 for the former and \$4.86 $\frac{1}{2}$ for the latter. A small engagement of gold was made in London for shipment to New York at the end of the month. Early in August the Commissioner of Internal Revenue reversed his ruling of the previous month in the matter of stamps on demand exchange, holding that they required only a two-cent stamp, the same as domestic checks. The effect of this decision was shown in the revival of trading in demand bills and in a broader market for exchange. Rates opened at \$4.84 $\frac{1}{2}$ for sixty-day and \$4.86 for sight, advanced to \$4.85 for the former and \$4.86 $\frac{1}{2}$ for the latter, fell to \$4.84 for sixty-day and \$4.86 for sight by the middle of the month, and closed at these figures. Engagements of gold in Europe for shipment hither were small, amounting to \$2,855,000. The exchange market was influenced in September by dearer rates for money and also by an advance in the Bank of England rate of discount, which was made in order to check the movement of gold from London to America and to the Continent of Europe. The tendency was downward throughout the month. Rates opened at \$4.84 $\frac{1}{2}$ for sixty-day and \$4.86 for sight, fell to \$4.82 for the former and \$4.84 $\frac{1}{2}$ for the latter, closing at these rates. Gold imports during the month were \$11,738,242, but part of this gold was in transit for Cuba. Buying of long sterling for investment was resumed early in October, though the purchases were somewhat limited, but there was a profit in the operation, discounts in London advancing in consequence of financial tension at Berlin. The tone of the market was easy, there being a liberal supply of cotton and grain bills. After the middle of the month the market grew firmer, purchases of long sterling for investment were light, and gold imports fell off, the total for the month amounting to \$8,319,000 from Europe and \$3,750,000 from Australia. Rates opened at \$4.82 $\frac{1}{2}$ for sixty-day and \$4.85 for sight, and advanced by the 21st to \$4.83 for the former and \$4.86 $\frac{1}{2}$ for the latter, closing at these figures. In November the business in cable transfers was unsettled by the fact that some bankers, contending that these drafts were clearly taxable as checks, affixed a two-cent stamp instead of a four-cent *ad valorem* stamp. The attention of the Commissioner of Internal Revenue was called to the matter, and late in the month he ruled that the law was clear and that four-cent *ad valorem* stamps were required. Thereupon the use of two-cent stamps was discontinued by all drawers. Rates opened at \$4.83 to \$4.83 $\frac{1}{2}$ for sixty-day and \$4.86 to \$4.87 for sight, fell to \$4.82 for the former and \$4.85 for the latter,

in consequence of a pressure of commercial bills and also because of dearer rates for money here and easier discounts in London, and the market closed heavy at \$4.82 to \$4.82 $\frac{1}{2}$ for sixty-day and \$4.85 to \$4.86 for sight. The lower rates for exchange and more or less financial tension at Berlin caused a renewal of purchases of long sterling for investment early in December, and by the middle of the month it was estimated that about \$50,000,000 had been so bought and that it was hypothecated with New York banks and other institutions. The offerings of commercial bills were liberal, but these were promptly absorbed and the tone of the market remained firm, so continuing to near the end of the month, when it grew dull and barely steady. Rates were \$4.82 to \$4.82 $\frac{1}{2}$ for sixty-day until after the middle of December, when the latter were uniformly quoted at \$4.82 $\frac{1}{2}$. Rates for sight were \$4.85 $\frac{1}{2}$ to \$4.86 during the entire month. Though rates for actual business in sight were slightly above the gold-importing point, gold continued to move in moderate amounts from London to New York and from Australia to San Francisco, and there were comparatively large sums shipped from Paris to this city in transit for Cuba.

Railroads.—The revenues of the railroads of the country gradually improved after the beginning of the war with Spain and the improvement was rapid in the last half of the year. Reports of gross earnings of 200 roads show a total of \$1,117,615,550, against \$1,039,298,831 in 1897, a gain of \$78,316,719 on an increase of 1,506 in mileage. The gain in earnings was largely due to the increase in the volume of agricultural products moved, to the general revival of trade which followed the ending of the war with Spain, to the prosperity of the farming sections of the country, to the wide distribution of merchandise, and to the movement of iron ore from the lake regions. There were no general labor troubles and the floods in the Mississippi valley, which were so disastrous in the previous year, proved comparatively unimportant in 1898. The Southern roads greatly benefited by the transportation of troops, and there was an enlarged passenger traffic over Western lines. The rate situation was discouraging, especially between Chicago and the seaboard, and in the latter part of the year grain was carried as low as ten cents per hundred pounds. One important event was the decision in October by the United States Supreme Court against the legality of the Joint Traffic Association. In March the decision of the court of last resort against the Nebraska maximum freight-rate law was announced. Among the other important events of the year were the consolidation of the Lake Shore and the New York Central; the purchase by the Northern Pacific of the Seattle, Lake Shore and Eastern; the acquirement of the New York, Susquehanna and Western by the Erie; the promulgation of the reorganization plan of the Baltimore and Ohio, followed by the obtaining by the President of the Great Northern of a large interest in the company; the acquirement by the Atchison of the San Francisco and San Joaquin Valley road; the absorption by the Union Pacific of the Oregon Short Line; and the announcement of increased dividends by many of the principal roads of the country, while the Atchison and the Northern Pacific began paying dividends. The reorganization operations during the year were chiefly in the direction of completing plans previously initiated, and at the end of the year nearly all these reorganization plans had been carried into execution. The railroad refunding operations of the year caused the listing on the Stock Exchange of more than \$91,000,000 of bonds by the Lake Shore, Northern Pacific, New York Central, Rock Island, and the Chicago and North-

western companies alone, and the total amount of railroad and industrial bonds listed during 1898 was \$700,064,680, nearly double the amount listed in the previous year, while the amount of new railroad and other stocks listed was \$528,153,996, of which that of the Federal Steel Company was \$100,000,000.

The following shows gross and net earnings of the trunk lines:

ROADS.	1896-'97.	1897-'98.
PENNSYLVANIA:		
Gross earnings.....	\$64,223,176	\$65,603,612
Net earnings.....	20,532,068	20,659,963
NEW YORK CENTRAL:		
Gross earnings.....	45,643,949	45,393,773
Net earnings.....	15,367,236	16,117,941
ELIE:		
Gross earnings.....	31,331,926	32,800,010
Net earnings.....	8,486,792	8,173,280
BALTIMORE AND OHIO:		
Gross earnings.....	25,562,122	26,163,177
Net earnings.....	8,570,028	6,143,812

Manufacturing Industries.—As was the case in 1897 the cotton-goods trade and manufacturing was in a depressed condition throughout nearly the whole of the year 1898. Competition of Southern mills in the manufacture of cheaper grades of cotton goods and overproduction by the Eastern mills caused such congestion of stocks in the hands of New England manufacturers that a policy of restriction of production became necessary early in the year, and an attempt to reduce wages led to a strike of the operatives at New Bedford, Mass., while the Fall River and Lowell operatives accepted the reductions. The price of print cloths at first fell to 2½ cents, subsequently recovering to 2¾ cents, but later there was a gradual fall to 1½ cent per yard. The price did not improve until late in the year, when, through combinations of manufacturers and the regulation of production to meet the requirements of the market, there was a recovery to 2¼ cents. The woolen-goods industry was also depressed, chiefly because of accumulated foreign stocks early in the year, and likewise because of the quite general demand for cheap grades of goods. In the iron and steel trades the production was large at the beginning of the year, and it gradually grew to enormous proportions by the close. Prices of manufactured products of iron and steel were maintained at comparatively low though profitable figures, thus enabling our manufacturers successfully to compete with those of the principal European countries, and large quantities of steel rails, naval armor, and plates, and other material for shipbuilding were exported during the year to England and to the Continent of Europe. Several important contracts for the construction of vessels of war for Russia and for Japan were placed in this country, and contracts for similar work for the United States navy made the shipbuilding industry and allied industries extremely active during the greater part of the year, and particularly after the practical ending of the war with Spain. The output of pig iron was about 2,000,000 tons larger than in any year on record, the total production being 11,773,934 gross tons against 9,652,680 in 1897. The consumption and export were also notably large, amounting to 12,383,579 gross tons in 1898, against 9,783,178 tons in 1897. The most remarkable record for the year was that of exports of manufactures, these amounting to \$307,924,994, against \$279,652,721 in 1897 and \$253,690,533 in 1896. Exports of articles of iron and steel showed a gain, compared with 1897, of about \$20,000,000; shipments of copper ingots were \$2,971,000 larger, those of agricultural implements gained \$3,700,000, steel rails were \$2,800,000 greater,

and exports of pumps and hydraulic machinery gained \$1,300,000. In almost every article of manufacture there was an increase, the most notable exception being in refined mineral oils, the value of which decreased \$7,126,000 compared with 1897.

Business failures for the year 1898 were 12,186 in number, involving \$130,662,889 against 13,351 failures in 1897, involving \$154,322,071. It is worthy of note that the number of failures and the amount involved were smaller in the last half of the year than in the first six months, indicating the progressive character of the industrial development. It is also noteworthy that the comparisons of the number of failures and of the amount of liabilities in 1898 with those of recent panic years make a very satisfactory exhibit, the number being 2,800 less than in 1896 and 3,100 smaller than in 1893, while the liabilities in 1898 were \$95,000,000 less than in 1896 and \$216,000,000 below those of 1893.

FINE ARTS IN 1898. Under this title are treated the principal art events of the year ending with December, 1898, including especially the great exhibitions in Europe and the United States, sales and acquisitions of works of art, and erection of public statues and monuments.

Paris.—The preparations for the Universal Exposition of 1900 led to the eviction of both of the Salons from the buildings previously occupied by them, and the two were obliged to make a sort of compromise and to give their exhibitions together in the Galerie des Machines, the only one preserved of the great structures of the exposition of 1889. A single entrance and a single admission gave access to both, the exhibitions being divided only by a buffet. Two thirds of the receipts went to the Société des Artistes Français and one third to the Société Nationale des Beaux Arts. The total receipts amounted to 348,000 francs.

Paris: Salon of the Artistes Français.—The Société des Artistes Français elected the following officers for the year: President, Jean Paul Laurens; Vice-Presidents, Benoit Edouard Loviot, Emmanuel Fremiet; Secretaries, Albert Maignan, A. Bartholdi, Jean Louis Pascal, Alphonse Lamotte; Corresponding Secretary, Tony Robert-Fleury; Treasurer, Émile André Boisseau. President of the Jury of Painting, Léon J. F. Bonnat; Sculpture, Louis Ernst Barrias; Decorative Arts, Jules Félix Coutan; Architecture, Honorary President, Charles Garnier, President, Pierre Daumet; Engraving and Lithography, François Eugène Burney.

The annual exhibition (April 20 to June 30) comprised 5,024 numbers, classified as follow: Paintings, 2,105; cartoons, water colors, pastels, miniatures, enamels, porcelain pictures, etc., 974; sculptures, 859; engraving on medals and precious stones, 86; decorative art, 226; architecture, 221; engraving and lithography, 548.

The following are the honorary awards for 1898: Section of Painting: Medal of honor, Jean Jacques Henner, "Le Lévite d'Ephraïm et sa Femme Mort." No first-class medal awarded. Second-class medals: Alexandre Bouché "An crépuscule"; Paul Sinibaldi, "L'Industrie—Les Sciences et les Arts présentent leurs Découvertes à l'Industrie" (decorative panel for the Ministry of Commerce and Industry); Jules Adler, "Joies Populaires"; Auguste Leroux, "Samson et Dalila"; Georges Frédéric Roussel, "L'Empereur!—entrée des Cendres de Napoléon I^{er} dans la Chapelle des Invalides (15 Décembre, 1840)"; Henri Guinier, "Printemps"; André Devambez, "Conversion de Marie-Madeleine"; Jacques Wagrez, "Un Maître de Chapelle de Saint-Marc de Venise—XV^e Siècle"; Jean Hippolyte Paul Lazerges, "Repos au Campement le Soir—près Biskra"; Émile Wéry, "Fille de Pen-marché"; Paul Joseph Jamin, "Cité Lacustre—le

retour des Hommes est signalé"; Mlle. Angèle Delasalle, "Le Retour de la Chasse"; Fernand Sabatté, "Un Philosophe"; Léon Gagneau, "Le Viaduc des Moulinaux"; Edmond Georges Grandjean, "Le Char du Soleil"; Edmond Debon, "Les Varches à Carolles"; Jules Charles Aviat, "Portrait de Mme. la Marquise de X—"; Jean Joseph Enders, "La Veillée au Presbytère"; Auguste Prévot-Valéri, "Le Clos Monsieur—Seine-et-Marne"; Honoré Umbricht, "Le Vieux Fumeur." Third-class medals: Louis Ridet, Louis Cavalier, Jean Laronze, Eugène Antoine Guillon, Marcel Rieder, Fortunio Soriano, Louis Roger, Maurice Jeannin, Charles Crés, Henri Edmond Rudaux, Adolphe Henri Laisement, Henri Courselles-Dumont, Henri Dabadie, Julien Adolphe Duvoelle, Louis Abel Truchet, Léon Pierre Félix, Albert Thomas, Georges Alexandre Chicotot, Giacomo Grosso. — Mihie, Amédée Buffet, Désiré Lucas, Max Bohm, Victor Ferdinand Bourgeois, Eugène Henri Cauchois.

Section of Sculpture: Medal of honor, Georges Gardet, "Tigres et Lions" (marble group). First-class medals: Henri Louis Levasseur, "La Perle" (marble group); Hippolyte Lefebvre, "Niolé" (marble group); Paul Loiseau-Rousseau, "Le Supplice de la Croix" (statue, marble and bronze). Second-class medals: Victor Peter, "Maternité" (lioness and whelps, marble group); Joseph Antoine Bernard, "Espoir Vaincu" (marble statue); Henri Honoré Plé, "Echo des Bois" (marble statue); Léo Laporte-Blaisay, "Le Réveil de Morphée" (marble statue); Auguste Maillard, "Chute d'Icare" (marble); Paul Roussel, "Le Pèlerin de la Vie" (bas-relief plaster). Third-class medals: Georges Émile Muhlenbeck, André Vermare, Paul Darbefeulle, Louis Castex, Eucher Girardin, Paul Duchuing, Émile Derré, Paul Eugène Bréton, Émile Guillaume.

Section of Architecture: No first-class medal awarded. Second-class medals: Émile André, Joanny Bernard (with M. Robert), Henri Fernand Sirot. Third-class medals: Charles Letrosne. — Bénard, Louis Jaumin, Charles Chauvet, Pierre Choret, Gaston Munier, Joseph Charlet, Edmond Fatio, Justin Ernest, Marcel Bidoire.

Section of Engraving and Lithography: Medal of honor, Jean Patricot. No first-class medal awarded. Second-class medals: Jules Simon Payrau (engraving); Georges Sauvage, Agricol Charles Bénard, Marie Edmond Honer (lithography); Louis Valère Ruet, Lucien Marcellin Gautier, André Charles Coppier, Gaston Albert Manchon (etching). Third-class medals: Abel Jamas (engraving); Alexandre Félix Leleu, Firmin Bouisset (lithography); Léon Bazin, Ernest Maitre (wood engraving); Mme. Clémence Élixa Chauvel (etching).

Henner's "Le Lévitte d'Ephraïm et sa Femme Morte," the medal-of-honor picture, attracted much attention from the public and, with a few exceptions, commendation from the critics. The dead wife shows the same nude, with the ruddy glory of flowing hair against pale-gray flesh tints, which Henner has painted faithfully for nearly half a century, and the head of the Levite looking down on her face from the shadowy background is a good illustration of his peculiar handling of light and shade.

Roche-grosse contributed a large decorative canvas, intended for the staircase of the library of the Sorbonne, entitled, "Le Chant des Muses éveille l'âme humaine." The sky is filled with the Muses, who with shadowy garments float past singing to the accompaniment of a lyre borne by one of the foremost; below them, in the foreground and at the right, many specimens of prehistoric man, arrested in various acts characteristic of him and of his age, look up in evident amazement at the novel sight and sounds. In the center are the inevitable nudes,

one on her back, the other posing to the front and looking askance over her shoulder at her sisters in the sky.

The "Décoration d'une Salle du Muséum," by Fernand Cormon, is a still larger decorative work, to which an entire apartment of the Salon was given up. A large ceiling exhibits the several human races, the Aryan, the Semitic, and the yellow, black, and red races. In the foreground is primitive man, behind him at the left the Aryans, to the right, on high, the Semites, and below the yellow races, the blacks of Africa, and the red men of America. Ten panels exhibit the rise to civilization: 1. The quaternary period, with the megatherium and other prehistoric animals. 2. Glacial period, with the mammoth and cave bear. 3. Polished stone age, in the distance the funeral of a chief. 4. Bronze and iron age, in the foreground a primitive forge. The next six panels show the development of humanity: 5. Primitive man devouring the crawfish which his woman digs out for him among the rocks. 6. The flint age. Man conceives the idea of a tool. 7. Huntsmen in the ice age, with perfected stone and bone weapons. 8. Fishermen, age of polished stone—a lacustrine village in Switzerland. 9. Age of bronze; agriculturists. 10. Age of iron; emigration of a Gallic horde.

Jean Paul Laurens contributed another of his scenes of Paris history for the Hôtel de Ville, "L'Arrestation de Broussel," a staircase filled with descending men at arms, their leader with drawn sword at the foot and the guarded prisoner closely following him. On the balcony above crying women look down, and on the stairs several men seem to make energetic protest.

Gérôme contributed one of his oft-painted interiors, an Arab or Moorish porcelain bathroom, superintended by a blue-draped eunuch in the background, and three nude odalisques in the middle and foreground, two chatting beside the water and the third posing to the spectator in front.

One of the strongest pictures of the year is Roybet's "L'Astronome," representing a number of Parisian celebrities of the present, including Jules Lefebvre, Cormon, and others, in costumes of the time of Louis XIII, grouped around a celestial globe listening to a lesson in astronomy.

Paris: Salon of the Société Nationale.—The ninth annual exhibition of the Société Nationale des Beaux Arts comprised 2,569 numbers, of which 1,286 were paintings, 599 designs, drawings, etc., 147 engravings, 209 sculptures, 240 art objects, and 88 architecture.

The death of Puvis de Chavannes, the mainstay of the secession Salon, made necessary the election of a new president, resulting in the choice of Édouard Détaillé.

Prominent among the exhibits was the great decorative panel which the late president added to the history of St. Geneviève, for the Panthéon, entitled "Ste. Geneviève veille sur la Ville Endormie." The saint stands on a terrace which dominates the ancient Lutetia. She has just left her cell, which is lighted by her lamp, and with her hand on the stone balustrade, beside which is a single pot of flowers, looks down on the roofs of the city that cluster around a basilica within the narrow precinct of the ramparts. Back of the ramparts the river mirrors the moon, and back of that spreads the country, tinged with blue and dotted with villas under a sky full of starlight. St. Geneviève stands immovable in the silence of the night, her head and shoulders covered by a white veil falling over a robe marked by straight folds of greenish brown, and, though her head is marked by no aureole, impresses the spectator with all the supernatural charm which belongs to her legend.

Another picture to command attention was a large triptych, entitled "L'Âge de l'Ouvrier," by Léon Frédéric, of Brussels. In three compartments the painter has pictured from birth to old age the life of the mechanic. In the first panel mothers with drawn, serious faces and amid poor surroundings give suck to their children. In the second some *gamins* play on the pavement of a populous street, in the back of which passes by in the crush of a dense crowd a band of revolutionaries. In the third carpenters are raising a scaffold in a timber yard. The work is a wonderful piece of technique, worthy of the traditions of the Flemish school.

Another noteworthy triptych is "Au Pays de la Mer," by G. Cottet. The central panel, "Le Repas d'Adieu," represents a sailor's family seated around a rustic table in a basement room illuminated by the light of a lamp suspended from the ceiling. A man has risen and, glass in hand, has just uttered some words of farewell, to which the old grandmother listens with drooping eyelids, while a young man and woman clasp hands without speaking. All the faces (there are a dozen or more) and attitudes reveal a restrained emotion and a meditative gravity befitting the occasion. The left panel shows the full sea stretching to infinity round the little boat where the sailors are resting; the right, the strand on the edge of the sea where the young women await the return home.

"Le Christ et les Pèlerins à Emmaus," by Dagnan-Bouvet, is especially interesting to Americans because it was purchased by Henry C. Frick, of Pittsburgh, and has already found a home in the galleries of the Carnegie Institute, in that city. The artist has represented all the light as emanating from the white-robed person of Christ, who is seated at the table in the little inn, and spreading thence over all the persons and the back of the picture. Surprise, admiration, and the fervor of prayer are all expressed in the faces of the two disciples, the servant, and three other figures, especially in those of the young woman and the little boy on their knees at the left with hands clasped. The picture is one of the best of the year, and the Pittsburgh gallery is to be congratulated on its acquisition.

The exhibition was marked by an unusual number of good portraits, and by a new irruption of nudes, which during the past few years have not been quite so prominent. Under many titles, such as "Nue," "Eve," "Réverie," "Baigneuses," "Près de Feu," "La Toilette," "Étude de Nu," etc., the various models exhibited their charms in attitudes and in scenes which would have been startling in the Garden of Eden. Whatever one may think of the opinion of the Italian sociologist who attributes the present condition of the Latin races to their preoccupation of sex, it must be acknowledged that their figure painting is of the best.

Among the sculptures of the year none occasioned more discussion and indignation than a plaster model for a statue of Balzac by Rodin, which the admirers of the great writer pronounced a caricature and rejected. A new work by Falguière, which represents Balzac sitting and writing, is to be substituted for it.

The American sculptor St. Gaudens had a large exhibit in the Salon, consisting of plaster models of the monument to Col. Robert G. Shaw at Boston, the statue of a Puritan at Springfield, bust portraits of Gen. Sherman and others, medallion portraits, etc.

Paris: Miscellaneous.—Mme. Meissonier, second wife of the late Jean Louis Ernest Meissonier, who died recently at Poissy, bequeathed to the state a remarkable collection of the works of the great painter, including finished pictures and numerous studies of landscapes, figures, costumes,

etc., and nearly all the properties of his *atelier*. Among the pictures are the "Madonna del Baccio," the portrait of Meissonier of 1872 and the more famous one of 1889, the "Vue de Venise" and many studies for it, "Clair de Lune à Venise," "Cavaliers Louis XIII en route," "Jean Jacques descendant l'Escalier de Bois de Lausanne," "Samson abattant les Philistins," "Les Ruines des Tuileries," and "Le Siège de Paris," one of the artist's last compositions. The collection, of great artistic as well as pecuniary value, will ultimately find its way into the Louvre.

Mme. Meissonier bequeathed also to the city of Lyons, where the artist was born, and to Grenoble, where he passed his youth, several of his pictures and a series of bronzes cast from models executed by him for certain of his compositions.

An interesting picture, sold at the rooms of Georges Petit in May, was a slightly modified copy of the famous "Sacre de Napoleon I^{er}," by David, in the Louvre. The artist became dissatisfied with this, his first conception, and began the picture anew, preserving the original proportions. The fall of Napoleon and the return of the Bourbons having forced the painter into exile, he did not finish this picture until 1822. One of his admirers then paid him 80,000 francs for it, and it had remained in the family of the purchaser at Montpellier until fate brought it to the auction room. It was sold for 32,000 francs to M. Singer.

The collection of the late M. Goldschmidt, sold in Paris in May, produced a total of 798,904 francs. The paintings brought 594,000 francs, of which 393,190 francs were for modern pictures and 201,710 for old pictures. Among the best prices obtained for modern pictures were: Corot, "Allée sous Bois," 43,500; Diaz de La Peña, "Clairière," 37,000; Jean François Millet, "Les Bûcherons," 54,000; Théodore Rousseau, "Environs de Fontainebleau," 46,000; "L'Étang," 37,500; Troyon, "Le Retour du Marché," 39,500. Of the old pictures, Hobbema's "L'Avenue" brought 51,000, and A. Van de Velde's "Vue de Hollande" 11,000 francs.

The Alphonse de Neuville sale, May 23-25, realized 218,592 francs. Of his own pictures, "Le Parlementaire" brought 41,200 francs, and "Héricourt" 28,000; water colors—"Officier d'état-major," 6,900; "Officier Prussien," 6,900; "Charge de Cavalerie," 8,650 francs.

The sale of the *atelier* of the late Mihály Munkácsy took place on June 2-4. Among many studies sold were: "Ecce Homo," 15,100; "Mozart mourant," 3,000; "Au Mont de Piété," 800 francs.

At the Second sale, June 18, Rosa Bonheur's "Le Pâturage" brought 15,900 francs; Corot's "La Cueillette," 53,000; Théodore Rousseau's "La Mare," 101,100; and Ziem's "Venise," 20,000 francs.

The Collection Tabourier, sold at the Hôtel Drouot, June 21-22, brought in the aggregate 942,963 francs. Among the best prices obtained were: Nicolas Lancret, "La Ronde Champêtre," 112,000 francs; J. B. J. Pater, "L'Arrivée au Camp," 28,100; "Le Campement," 29,000; Van der Weyden, "Mater Dolorosa," 15,000; Delacroix, "Lutte de Jacob avec l'Ange," 15,500; "Chassé du Temple par Héliodore," 15,500.

A series of decorative paintings executed by Fragonard for Mme. Dubarry's chateau of Louveciennes before he fled from Paris in 1789, and afterward adapted by him to the walls of a room in the Maison Malvilain at Grasse, were sold lately to an English buyer for £50,000. The pictures, entitled, "La Vierge et l'Amour," "La Surprise de l'Amour," "Le Sacrifice de la Rose," "La Lettre d'Amour," and "La Couronne de l'Amour," are executed on canvas, stretched on wooden frames intended to cover the space between the dado and the ceiling. They were

never completely finished, the return of the artist to Paris having put an abrupt end to the undertaking.

London: Royal Academy.—The Royal Academy elections were held in January and February, with the following results: Academicians—B. W. Leader, E. J. Gregory, George Aitchison, Seymour Lucas, Edwin A. Abbey; Associates—H. H. La Thangue, Lionel Smythe, C. Napier Henry.

The twenty-ninth annual winter exhibition was devoted to the life work of the late president, Sir John Everett Millais. The collection, although by no means complete, filled seven galleries and formed a magnificent and representative whole. All classes of his pictures, from his preraaphaelite efforts down to his latest works, all more or less marked by his earlier predilections, were shown.

The one-hundred-and-thirtieth summer exhibition was fully up to the general standard.

One of the most noteworthy of the exhibits is "The Skirt Dance," contributed by the president, Sir Edward John Poynter, representing a young girl dancing for the delectation of groups of Roman maidens who are lolling and chatting while they gaze with admiration on her movements. Marble-paneled walls and a richly tiled pavement, bounded by a circular marble seating for the spectators, suggest the garden house of a Roman villa. The dancer is clad in diaphanous pink gauze, revealing the outlines of her perfect form as she poses in the figures of the dance. The blue sky, the green of ivy, and the pink of oleanders seen through the marble pillars furnish a poetic background.

"The Road to Camelot," by George H. Boughton, inspired by Tennyson's "Lady of Shalott," represents the wondrous vision of picturesque life and movement passing down to Camelot, on which the lady was forbidden to look save as reflected in the clear mirror before her. In the foreground a fair-haired page, in crimson, holds in leash a hound, with which court damsels on the right, accompanied by minstrels, are toying, while on the left red-hooded market girls follow. In the background a long line of knights, riding two and two, press on toward Camelot, whose gray towers are seen in the background.

Mr. Watts's "Love Triumphant" is one of the allegorical mysticisms which characterize so many of his efforts. A nude winged figure with arms stretched upward and with face gazing into the infinite is supposed to typify universal charity. At his feet, recumbent, are a male figure with a scythe and a female figure, apparently dead, said to typify earthly love. A richly-colored robe which floats around the middle of the principal figure seems to divide the picture into the two parts demanded by the allegory.

Edwin Abbey followed his "Richard III" and "Hamlet and Ophelia" of preceding exhibitions by a scene from "Lear," in which Cordelia is the dominant figure. She is clad in a yellow-green vestment with a deep-blue border which, opposed to the reds and blacks of Goneril and of Regan, presents a triumph of originality and of decorative art. A suggestion of motion is given to the picture by the drooping figure of Lear, who, sustained by pages and followed by men-at-arms, moves across the canvas from left to right.

Mr. Sargent exhibited eight portraits, among them one of Miss Leiter, of Washington, the sister of Lady Curzon.

Ernest Croft's "Charles II at Whiteladies" represents the monarch and his body guard arrived, after hard riding from the battle of Worcester, at the entrance to the mansion and clamoring for refuge.

Alma-Tadema's "Conversion of Paula by St. Jerome" is one of his very best pictures, if not his

masterpiece. Across the picture, illumed by glowing sunlight, is a terrace of white marble, a pergola with its vine foliage and hanging grapes, a marble staircase leading to a temple, and in the background the blue sky and the sea. On the terrace is an altar of Bacchus, with vessels of silver upon it, and beside it reclines Paula, clad in purple and amber tissues shot with gold. Her features indicate her voluptuous temperament, and a jeweled diadem and a wealth of auburn tresses are in keeping with her costume and magnificent surroundings. Leaning backward upon one hand, she is listening intently to the words of the saint, a handsome young man in dark blue, purple, and white robes, and with a somewhat austere and self-restrained air, who sits at the right holding a scroll in his lap with one hand and raising the other to give emphasis to his words. The artist has never before succeeded so well in portraying human emotion, while no part of the gorgeous canvas is unworthy of him at his best.

London: Miscellaneous.—The National Gallery has acquired by purchase the two wings of the altarpiece of which the "Madonna of the Rocks," attributed to Leonardo da Vinci, now in the collection, formed the central portion. They represent angels playing on musical instruments. The first is said to be by Leonardo, in conjunction with his pupil Giovanni Ambrogio de Predis, and the second entirely by the latter. The genuineness of the Madonna, bought from the Earl of Suffolk's collection, in 1880, for £9,000, has been often attacked by Dr. Richter, who asserts that the genuine picture is the one in the Louvre.

The Ruston sale of the Monk's Manor collection, May 21 and 23, comprised pictures by both modern and old masters. The highest price paid was for Burne-Jones's "Mirror of Venus," which brought 5,450 guineas. At the Leyland sale (1892) this picture fetched 3,400 guineas. The "Chant d'Amour," which many consider his best work, brought 3,200 guineas, a slight advance on its price at the Graham sale (1886) of 3,150 guineas. "Dawn" and "Night," two drawings, realized 1,050 guineas. Rossetti's "Dante at the Bier of Beatrice," a smaller replica of the work in the Liverpool Gallery, brought 3,000 guineas. It was sold in the Graham sale for 1,000. "La Ghirlandata" (Graham sale, 1,000), also fetched 3,000 guineas, and "Veronica Veronese" (Leyland sale, 1,000) 1,550 guineas. G. F. Watts's "Eve of Peace" (Rickard's sale, 1887, 950) fetched 1,350 guineas; "Portrait of the Artist," 650. Gainsborough's "Lady Clarges" (J. Price sale, 1895, 2,000), 1,350 guineas. Turner's "Falls of the Clyde" (1884, 330) sold for 890 guineas. Rembrandt's portrait of "Nicholas Ruts" (Adrian Hope sale, 1894, 4,700) brought 5,000 guineas. Del Sarto's "Pieta" (Novar sale, 1888, 1,700; Dudley sale, 1892, 1,040) fell to 600 guineas. Van Dyck's "Virgin and Child" (Blenheim sale, 1886, 500) advanced to 1,000 guineas.

The death of Burne-Jones, a few weeks after the Ruston sale, was followed by the disposal of the works left in his studio, consisting of some finished pictures, pastels, and water-color drawings, and many studies and sketches. Eighteen water-color drawings fetched £7,000, and 28 pastel drawings, £5,000. "Love and the Pilgrim" (1897), dedicated to Algernon Charles Swinburne, brought 5,500 guineas. Among the minor pictures sold were the following, the prices in each case being in guineas: "Departure of Knights in Quest of the Holy Grail," 610; "Dream of Lancelot at the Ruined Chapel," 650; "Stoning of Stephen," 150. Water-color drawings: "Head of Nimne," 500; "Sir Galahad at Shrine of the Holy Grail," 400; "St. Cecilia," 720; "The Tree of Life," 770; "Paradise," 520; "Last Judgment," 600. Studies in oil: "Per-

seus and Andromeda," 440; "The Sirens," 490; "Elijah in the Wilderness," 950; "The Wizard," 530; "Fall of Lucifer," 1,000.

The Renton sale in June brought to the hammer several notable works of the late Sir John Everett Millais: "The Order of Release" (Arden sale, 1879, £2,835) brought 5,000 guineas; "The Black Brunswick" (Plint sale, 1862, £819) advanced to 2,650 guineas; "Yes," 1,000; "Urquhart Castle," 650; and "Afternoon Tea," 1,300 guineas. Luke Fildes's "Playmates" brought 700 guineas and Sir Edward Poynter's "Corner in a Villa," 880 guineas.

A sale at Chrystie's in July was noteworthy for the disposal of a few pictures by prominent artists: Millais, "The Ruling Passion" or "The Ornithologist," 850 guineas; "Time," 260. Van Dyck, "Time clipping the Wings of Love," 800. Burne-Jones, "The Story of Pygmalion" (Craven sale, 1895, £3,675), 2,800. Corot, "La Chevière," 1,600. Meissonier, "Valentine," 400.

The Grant Morris sale of pictures and water-color drawings formerly at Allerton Priory, Liverpool, brought a few good works into market. Turner, "Malmesbury Abbey," 780 guineas; Millais, study for "Sir Isumbras at the Ford" (Knowles sale, 1877, 95), 280; Alma-Tadema, "Roman Flower Market" (1873, £640), 880; L. Knaus, "Cup of Coffee," 1,050; Israel, "Anxious Family," 950.

The sale of the Bilton Hall collection, chiefly family portraits, was remarkable for its historic interest: the pictures formerly belonged to Addison and the Countess of Warwick, whom the essayist married after the death of the sixth earl.

The Boyle sale was noteworthy for its two examples of Romney, "The Marchioness of Townshend," which was bought in at 5,200 guineas, and "Madam Susan Jouenne," which sold for 3,000 guineas. A Hoppner portrait "Mrs. Inchbald," the actress and dramatic writer, brought 1,000 guineas.

Amsterdam.—The Rembrandt Exhibition, held in the new Town Museum, Sept. 8 to Oct. 31, in honor of the coronation of the Queen of Holland, comprised 155 of his works, including many famous examples from foreign countries. Queen Victoria lent two from Buckingham Palace, including the "Lady with a Fan," the Duke of Westminster sent six, including the celebrated "Man with a Falcon," and the Dukes of Devonshire and Buccleugh, the Earls of Derby and Spencer, and other noblemen contributed valuable canvases. Of course "The Night Watch" and "The Syndics" were given the places of honor. It is singular that the exhibition was marked by the absence of the famous "School of Anatomy" and the portrait of "Madame Jacobs Bas," which, as the property of the state, can not be removed without a vote of the Dutch Parliament. It is remarkable also that no effort seems to have been made to secure the splendid Rembrandts in the United States, especially the "Standard Bearer" of Mr. George J. Gould, and "The Gilder" and "The Burgomaster of Delft" in the Havemeyer collection.

Berlin.—The National Gallery in Berlin is undergoing a thorough reorganization, a large part of its treasures, both in painting and in sculpture, having been distributed to collections in other cities of the empire, with a view to kindling a sense for art in the provinces. The leading motive in the works to be retained is the formation of a complete and exhaustive presentation of German art, from its beginnings to the present time, in the central collection.

Florence.—An interesting discovery made lately in the Chapel of St. Elizabeth, in the Church of Ognissanti, is an altarpiece by Domenico Ghirlandajo containing a portrait of Amerigo Vespucci, from whom America was named. Vasari, in his life of

Domenico, says: "His first pictures were in Ognissanti in the Vespucci Chapel, where is a dead Christ and saints, and above, in the arch, a Misericordia, in which is the portrait of Amerigo Vespucci, who sailed to the Indies." Bottari says that in the remodeling of the chapel in 1616 the picture of Ghirlandajo was whitewashed over. But, in February last, in removing an altarpiece by Matteo Rosselli, Ghirlandajo's fresco was discovered on the wall behind it, not whitewashed, but merely covered by the picture. The Pietà, in the lower part of the fresco, has been badly repainted, but the Misericordia, in the arched panel above, is in good preservation. It represents the Madonna of Mercy standing with outstretched hands, her mantle upheld by angels, and beneath it, kneeling, a dozen members of the Vespucci family, the men on her right, the women on her left. Amerigo is supposed to be a young man with dark hair, nearest to the Madonna, the old man with white hair being perhaps his father, Ser Anastagio. Among the women, one is noteworthy for her resemblance to Piero di Cosimo's portrait of the celebrated beauty La Bella Simonetta, in the Chantilly collection. As there is no doubt of the authenticity of the painting and it is the earliest probably of Ghirlandajo's works, the discovery is interesting from both a historical and an artistic point of view.

Madrid.—A recent discovery of a marble bust of Christ, with eyes of blue rock crystal, has created some discussion among artists and critics. It is said to be a remarkable work and has been pronounced by experts to be by either Michael Angelo or Donatello. It has been purchased by the Russian ambassador at Madrid.

Vienna.—At the International Art Exhibition gold medals were awarded to several American artists: First-class, Edwin Abbey, for his "Hamlet," and Alexander Harrison, for his "Arcadia." Second-class, F. A. Bridgman.

New York: National Academy of Design.—The council for 1898-'99 consists of the following: President, Thomas W. Wood; Vice-President, James M. Hart; Corresponding Secretary, Harry W. Watrous; Recording Secretary, George H. Smillie; Treasurer, James D. Smillie; Council, F. S. Church, Frederick Dielman, H. Bolton Jones, J. Carroll Beckwith, J. C. Nicoll, C. D. Weldon. The Academy has 98 academicians and 53 associates.

At the seventy-third annual exhibition (March 28 to May 14) 364 canvases were exhibited. The prizes were awarded as follow: The Thomas B. Clark prize (\$300), for the best American figure composition, to Abbott H. Thayer for his "Portrait of a Lady"; the first Julius Hallgarten prize (\$300), to Robert Reid's "Dawn"; the second Hallgarten prize (\$200), to Harry Roseland's "An Important Letter"; the third Hallgarten prize (\$100), to Walter C. Hartson's "Fields in September"; and the Norman W. Dodge prize (\$300), to Miss Letitia B. Hart's "The Keepsake." Among other noteworthy exhibits were Gilbert Ganl's "News from the Front," Horatio Walker's "The Harrower," Theodore Wores's "A Chinese Fishmonger," and J. H. Twachtman's "Niagara."

The catalogue of this year has as a frontispiece an illustration of the front elevation of the projected new Academy on Cathedral Boulevard and Amsterdam Avenue. Beginning with the seventy-third annual exhibition, the Academy exhibitions will be thrown open in future to the public free on Sundays.

New York: Society of American Artists.—The twentieth annual exhibition was held at the Fine Arts Building from March 18 to April 30. The Webb prize (\$300), for the best landscape in the exhibition painted by an American artist under

forty years of age, was awarded to George H. Bogert for his "Evening: Honfleur," a little landscape in which a lonely road traverses a melancholy-looking bog. The Shaw fund of \$1,500, for the purchase of a figure composition in oil by an American artist, was devoted to the acquisition of Mr. Barse's allegory "Night and the Waning Day," two floating figures in a twilight sky. Among the more noteworthy exhibits was John La Farge's "The Goddess Minerva making the First Sketch from Nature," in the presence of Ceres and Proserpine, a large decorative canvas for Bowdoin College. John W. Alexander's "Pot of Basil" represents Isabella, in a flowing robe of black and white, placing an urn in a niche. Four masterly subjects by Whistler, entitled "Westminster Bridge," "The Blue Wave," "Symphony in Blue and Violet," and "Note in Carmine," belong to a private collection in Cleveland, Ohio.

The year has been marked by the resignation from the society of a number of members with the motive of starting a more restricted society with more definite aims in view. These include Messrs. Edmund C. Tarbell, Frank W. Benson, and Joseph De Camp, of Massachusetts, and J. Alden Weir, Edward Simmons, J. H. Twachtman, Thomas W. Dewing, Childe Hassam, Willard L. Metcalf, and Robert Reid, of New York. These 10 gentlemen gave an exhibition of their own, without any private view or reception formalities, at the galleries of Durand-Ruel, March 30 to April 16.

New York: The National Sculpture Society.

—The officers elected for 1898 are as follow: President, J. Q. A. Ward; Vice-Presidents, Charles de Kay, Charles R. Lamb; Treasurer, I. Wyman Drummond; Secretary, Barr Ferree. The third annual exhibition was held in the Fine Arts Building from April 30 to May 14.

New York: American Water-Color Society.—The thirty-first annual exhibition, held (Jan. 31 to Feb. 26) at the National Academy of Design, showed the usual average of good work among the 517 pictures contributed. The William T. Evans prize of \$300 was awarded to C. Harry Eaton's "The Brook," a clear-aired landscape with a Corot motive. The prize was first awarded by mistake to Albert Herter for his work entitled "Sorrow," which was not eligible for competition because it was painted abroad. This picture represents a woman seated upon a sofa sharing the grief of a man prostrated at her feet, his head buried in her lap. Both are clad in black, and the picture throughout is somber and subdued in tone. Other noteworthy works were H. B. Snell's "Wreck of the Jason," "Haunt of the Sea Gull," and "Her Majesty's Ship 'Renown,'" all characteristic pieces; W. L. Lathrop's "Moonrise" and "A Farm Road"; Horatio Walker's "Milking—A Summer Morning"; D. W. Tryon's "Early Spring"; J. G. Brown's "Making a Soaker"; and Childe Hassam's "Alice in Wonderland, Isles of Shoals."

A loan exhibition of portraits, for the benefit of the Orthopædic Hospital, held at the National Academy of Design (Dec. 14, 1898, to Jan. 14, 1899), was one of the important art events of the year. Most of the principal American portrait painters were fully represented, and contributions by many foreign artists, including Chartran, Madrazo, Carolus Duran, Benjamin Constant, and Dagnan-Bouveret, as well as many examples of the early English portrait painters, made it a most attractive and representative exhibition.

The sale of the great collection of the late William Hood Stewart at Chickering Hall, Feb. 3 and 4, was one of the principal art events of the season. One hundred and twenty-eight pictures brought \$401,335, some bronzes and furniture bringing the

total receipts up to \$409,790. The highest price paid for a single canvas was \$42,000 for Fortuny's "Choice of a Model," which was bought by William A. Clark, of Butte, Mont. Others by Fortuny sold as follow: "Court of Justice, Alhambra," Harry P. Whitney, \$13,000; "Arab Fantasia," H. Harrison, \$12,000; "The Antiquary," Herman Schaus, \$15,500; "Arab Butcher," Stanford White, \$2,300; "Gipsy Caves, Granada," W. A. Clark, \$2,200; "Arab on a Divan," F. A. Bell, \$4,300; "Breakfast in the Old Convent Yard," George J. Gould, \$6,900; "The Masquerade," Knoedler & Co., \$4,750; "A Street in Tangiers," W. A. Clark, \$5,000; "Meissonier's Portrait," G. B. Berckman, \$2,300; "The Alberca Court, Alhambra," D. P. Douglas, \$7,000. Other good prices obtained were: Corot, "Ville d'Avray," \$5,000; "Sunset," \$6,200; Daubigny, "Auvers on the Oise," \$6,000; Zamacois, "Checkmated," \$10,700; "The Infanta," \$5,000; Troyon, "Chickens feeding," \$6,300; "The Lane," \$13,700; "Cow among the Cabbages," \$12,000; Baudry, "The Wave and the Pearl," \$8,600; "Fortune and the Child," \$6,500; Rousseau, "The Woodcutter, Fontainebleau," \$7,450; Meissonier, "The Stirrup Cup," \$12,500; "The End of a Game of Cards," \$9,000; Leibl, "Village Politicians," \$15,000; Madrazo, "Departure from the Masked Ball," \$16,500; "Pierrette," \$5,000; Von Marcke, "Cows in the Valley," \$11,500.

Another important sale was that of the Fuller and Dana collections, Feb. 25-27, consisting of paintings of the old English and Barbizon schools belonging to William H. Fuller, and of the pictures and porcelains of the late Charles A. Dana. The Fuller pictures realized \$166,200, and the Dana collection, pictures and ceramics, \$194,830. Of the Fuller pictures, Rousseau's "The Charcoal Burner's Hut," which was in the first exhibition of a hundred masterpieces in Paris in 1883, sold for \$36,500. The same artist's "Marais dans les Landes" brought \$7,600. Troyon's "Cattle in the Pasture," which sold at the Secretan sale for \$9,000, brought \$22,000. Dupré's "The Open Sea" sold for \$7,600. Of the English pictures, Constable's "Windermere Lake" brought \$5,300, and "The Lock," \$5,200. Several portraits by Gainsborough brought good prices, as "Lady Inness of Norfolk," \$5,500, and "Countess of Buckinghamshire," \$5,000. "The Blue Boy," attributed to Gainsborough and called a replica of the famous picture in Grosvenor House, London, was put up at the upset price of \$50,000, but received no bids and was withdrawn.

The few well-chosen pictures of the Dana collection brought good prices. The beautiful and well-known Corot, "Danse des Amours," sold for \$36,000, and Millet's "Turkey Herder" for \$20,000. Daubigny's "On the River Oise," brought \$6,500; Courbet's "Sea Shore," \$3,800; Rousseau's "Harvest Field," \$4,200; Jacque's "Sheep in the Forest," \$5,400; and Ziem's "Une Fête à Venise," \$3,800.

On Oct. 31, the birthday of the late architect Richard M. Hunt, was unveiled the memorial erected to his memory by the principal art organizations of the city. The monument, the work of Daniel Chester French, the sculptor, and Bruce Price, the architect, consists of a semicircular marble and granite bench supporting an architrave upheld by Ionic columns, recessed in the wall of Central Park opposite the Lenox Library, one of Mr. Hunt's most characteristic works. In the center, on a granite pedestal, is a bronze bust of Mr. Hunt, and on each of the fronts is a pedestal designed to hold statues, one representing Architecture, the other the Allied Arts.

Chicago: Art Institute.—A large and varied programme was presented during the year. Four exhibitions were held in the spring: The annual

exhibition of artists of Chicago and vicinity, Feb. 1 to Feb. 27: the annual exhibition of the Society of Western Artists, a collection exhibited successively at Cincinnati, St. Louis, Detroit, Chicago, and Indianapolis, Feb. 24 to March 14; Chicago Architectural Club, March 22; annual exhibition of American water colors, April 20.

Philadelphia: Pennsylvania Academy of Fine Arts.—Though not chartered until 1806, the Academy really dates from 1791, when Charles Wilson Peale organized in Philadelphia a school of art. The first Academy building, on Chestnut Street between Tenth and Eleventh Streets, was partly destroyed by fire in 1845, and in 1876 the present building, on Broad Street, was completed. The collection, a descriptive catalogue of which has lately been published, contains many works of the earlier American painters, such as Benjamin West, Charles Wilson Peale, Gilbert Stuart, and Washington Allston, and continuing down to the painters of the present day. "The Dead Man restored to Life by touching the Bones of the Prophet Elisha," by Allston, and "Death on the Pale Horse," by West, were purchased by the Academy in 1816 and 1836 respectively. Sully's full-length portrait of George Frederick Cook was presented by contribution in 1812, and the "Christ Rejected," considered by many the best of West's works, and the "Ariadne" of Vanderlyn, were presented in 1878 by Mrs. Joseph Harrison. Besides these are representative works by Trumbull, Gray, Huntington, and May, and portraits by Rembrandt Peale, Stuart, Sully, Eichholtz, Neagle, Inman, and many others. The honors awarded by the Academy are the Temple gold and silver medals; the Academy gold medal of honor founded in 1893 by John H. Converse; the Walter Lippincott prize and the Mary Smith prize, the latter founded by the late Russell Smith in memory of his daughter. The president of the Academy is Edward H. Coates.

The sixty-seventh annual exhibition, held in March, was very successful, having attracted contributions from all parts of the country. The Temple medals were awarded to Milton Lockwood, of Boston, for his picture "The Violinist," which received honorable mention at the exhibition of the Carnegie Institute, Pittsburgh, last year, and to Edward F. Rook, of Newport, R. I., for his canvas entitled "Pearl Clouds—Moonlight." The place of honor in the exhibition was held by the "Mother and Child," by George de Forest Brush, purchased by the Academy from the Temple fund, created by the late Joseph E. Temple. Gold medals of honor were awarded to Miss Cecilia Beaux and Edwin A. Abbey, both of whom were born in Philadelphia and received their early art education at the Academy.

Pittsburgh: Carnegie Institute.—The third annual celebration of Founder's Day was signalized by the usual picture exhibition and by the presence of the founder, Andrew Carnegie, who delivered the address. The collection of pictures, including many notable examples from Europe, selected by an advisory committee composed of some of the most eminent artists of London, Paris, and Munich, was fully up to the standard of previous exhibitions—a standard which bids fair to make Pittsburgh one of the principal art centers of the country. The awards of medals and honors by the international jury were as follow: Gold medal, carrying with it an award of \$1,500, Dwight William Tryon, South Dartmouth, Mass., for his "Early Spring in New England." Silver medal, with award of \$1,000, Child Hassam, New York, for "The Sea." Bronze medal, with award of \$500, Alexander Roche, Edinburgh, Scotland, for "The Window Seat." Honorable mention, E. A. Walton.

London, England, for "The Shepherd"; John F. Weir, New Haven, Conn., for "Roses." Most noteworthy among the permanent acquisitions of the gallery is Dagnan-Bouveret's "The Disciples at Emmaus," the gift of Henry C. Frick.

FLORIDA, a Southern State, admitted to the Union, March 3, 1845; area, 58,680 square miles. The population, according to each decennial census since admission, was 87,445 in 1850; 140,424 in 1860; 187,748 in 1870; 269,493 in 1880; and 391,422 in 1890. By the State census of 1895 it was 464,639. Capital, Tallahassee.

Government.—The following were the State officers during the year: Governor, William D. Bloxham; Secretary of State, John L. Crawford; Treasurer, James B. Whitfield; Comptroller, W. H. Reynolds; Attorney General, William B. Lamar; Superintendent of Public Instruction, William N. Sheats; Adjutant General, Patrick Houstoun; Commissioner of Agriculture, Lucius B. Wombwell; State Chemist, W. A. Rawls; State Examiner, W. V. Knott; Railroad Commissioners, R. H. M. Davidson, H. E. Day, J. M. Bryan; Board of Health, W. B. Henderson, J. P. Taliaferro, H. L. Simpson; Chief Justice of the Supreme Court, R. F. Taylor; Associate Justices, Milton H. Mabry and Francis B. Carter.

Finances.—The report of the present Treasurer, from the date of his commission, June 9, 1897, to the end of the year, shows that he received from his predecessor, of funds belonging to the State the sum of \$267,487.74, and of special funds \$17,279.84. The deficit in the treasury at the date of the resignation of the former Treasurer, C. B. Collins, was \$52,591.97. The records showed a further deficit of \$12,906.62 of the tax-redemption fund due the several counties, making a total of \$65,498.59. Mr. Collins was tried on a criminal charge of defrauding the State of \$52,591.97, and was acquitted. Civil suits were brought against him and his bondsmen by the State, and judgments were obtained.

The Treasurer's report at the close of business Nov. 30, 1898, showed balances to the credit of the several State funds amounting to \$341,711.45.

The total assessed valuation of property in 1897 was \$95,117,081.01, or \$272,935.37 less than the assessed value for 1896.

The total tax levy for 1897 was 5½ mills; for 1898 it was 4½ mills. The additional half mill in 1897 was made necessary by the deficit in the treasury. The general revenue tax is 3 mills; the pension tax, ¼ mill; the board-of-health tax, ¼ mill; and the school tax, 1 mill.

Education.—The average attendance at the public schools is 69,477. The amount levied for the 1-mill State school tax, \$95,117.17; amount collected, \$87,683.13; number of polls assessed, 68,068; number collected, 31,721.

The value of school property is \$755,824. The number of buildings is 2,121, of which 14 are brick, 1,855 frame, and 252 log. The cost *per capita* of the average daily attendance is \$9.93 for both races; *per capita* for the negro schools on the basis of the average daily attendance, \$6.20. The amount expended for negro schools for the last biennial period was \$171,485.56.

The cost of instruction at the institutions for higher learning, as shown in the catalogues, is given as follows: State Agricultural College—total salaries per annum, \$14,850; number of students, 168; average per student per year, \$88.39. West Florida Seminary—total salaries per annum, \$8,160; number of students, 137; average per student per year, \$59.56. State Normal College for Whites—total salaries per annum, \$4,300; number of students, 50; average per student per year, \$86. State Normal College for Negroes—total salaries per annum,

\$7,200; number of students, 213; average per student per year, \$33.80.

The enrollment in the summer schools this year was 1,026, of whom 733 were whites and 293 negroes, the former being 36 per cent., and the latter 46 per cent. of all the teachers employed in the State during 1897. This was 43 per cent. greater than in 1897, 69 per cent. above 1896, and 102 per cent. in excess of 1895. The average daily attendance was 678, of whom 484 were whites and 194 negroes. The number of actual teachers was 687, of whom 492 were whites and 195 negroes. Those intending to become teachers numbered 339, of which 241 were whites and 98 negroes. The fund provided for these schools consisted of an unexpended balance of \$285.80; Peabody donations, \$1,200; appropriated by the State, \$3,000; making a total of \$4,485.80. Of this amount, \$4,438.98 was expended, \$4,317.50 going for salaries of instructors.

Charities.—The report of the State Asylum for the Indigent Insane for 1897 shows that there were at the end of the year 443 patients, of whom 227 were men and 216 women, 70 more than at the close of 1896.

The attendance at the Institute for the Blind and the Deaf in 1897-'98 was as follows: White deaf—boys 15, girls 18; white blind—boys 5, girls 14; negro deaf—boys 9, girls 9; negro blind—boys 1, girls 1. Total white, 42; negroes, 20; grand total, 62. This is but 42.4 per cent. of the actual number of such children in the State.

Prisons.—The number of convicts in all the camps Jan. 1 was 687, an increase of 37 over 1897. Of these, 91 are white men, 21 colored women, and 1 is a white woman. During the year 362 were received and 253 discharged, 6 were pardoned, 31 died, 1 was sent to the insane asylum, 4 were killed in attempted escapes, and 44 escaped, of whom 11 were recaptured.

The work of building the Reformatory at Marianna, for offenders under sixteen, has been in progress during the latter half of the year.

Militia.—The report of the Adjutant General for 1897 shows the total of the active military force of Florida to be 1,134, of whom 94 were officers and 1,040 noncommissioned officers and enlisted soldiers, a gain of 32 enlisted men during the year. The Naval Militia had an aggregate of 240 men, 28 of whom were commissioned officers.

Insurance.—The number of fire insurance companies in the State is 50; life companies, 11; miscellaneous (accident, plate-glass and surety companies, etc.), 13; total, 74.

The aggregate premium receipts in Florida for the year 1897 were as follow: Fire, \$612,540.19; life, \$568,797.86; miscellaneous, \$58,676.83; total, \$1,240,014.88. The aggregate losses paid in Florida during 1897 were: Fire, \$203,615.70; life, \$254,408.78; miscellaneous, \$45,574.53; total, \$503,599.01. The net outgo for insurance during the year was: Fire, \$408,924.49; life, \$314,389.08; miscellaneous, \$13,102.30; total, \$736,415.87.

Railroads.—The Railroad Commission gives the total mileage as 2,987.33. The number of roads reported on is 22. The commissioners have been busy hearing complaints and adjusting rates on the roads. A passenger tariff, to go into effect July 18, was published in June, whereby the full fare on some roads was made four cents, and on others three.

Periodicals.—The following list of periodical publications in the State is believed to be accurate: Dailies, 20; tri-weeklies, 2; semi-weeklies, 4; weeklies, 137; semi-monthlies, 3; monthlies, 21; total, 187.

Reclamation of Lands.—According to the "Manufacturers' Record," a company has been incorporated for the purpose of developing a large

tract of land in the southeastern section of the State. The company, which has a capital of \$2,000,000, has acquired 800,000 acres in what is known as the Everglades. According to the prospectus, it is intended to construct a canal system 144 miles in extent, which will comprise 8 lateral canals, each 12 miles long, 50 feet wide, and 12 feet deep, and one 48 miles long, of the same width and depth. It is claimed that with this system of drainage the water which now covers a large area of the territory will be removed, as the surface of the Everglades averages 11 feet above tide water at the edge, and 20 feet above tide water in the highest portion. Several rivers that traverse the section will be used for drainage by being connected with the canals.

A number of projects of the same character have already been undertaken in Florida with successful results in reclaiming some of the richest land in the State.

Judicial Decision.—A law made by the Legislature of 1893 "to provide for the service of non-resident defendants and others in chancery causes" was declared unconstitutional by a judge of the circuit court, "in so far as it undertakes to provide for obtaining a service upon nonresident defendants when the only relief sought against said defendants is to obtain a decree *in personam* against them."

Political.—The officers to be chosen at the November election were: Two Congressmen, two Justices of the Supreme Court, one for two years, to fill the vacancy caused by the resignation of Justice Liddon, since filled by appointment, and one for the full term of six years; three Railroad Commissioners; one Treasurer to fill the vacancy caused by the resignation of Treasurer Collins, since filled by appointment; State Senators from the even-numbered districts, and one to fill the vacancy caused by the death of Senator Perrenot; representatives from all the counties; tax collectors, tax assessors, and treasurers in all the counties.

The State convention of Democrats met at Orlando, Aug. 3. Following is a part of the platform: "We congratulate the people on having as a visitor so distinguished a Democrat as William Jennings Bryan, our late Democratic candidate for President of the United States, and who is now serving his country as a patriot and soldier, and we appreciate his great ability as Democracy's national leader.

"We rejoice in the brilliant successes attained by the American sailors and soldiers in the present war with Spain, and glory in the fact that the last vestige of sectional feeling has been swept away forever.

"We condemn the policy of insular territorial expansion upon which the administration at Washington has embarked as unwise, un-American, unjust to the masses of our people, and especially to the laboring and producing classes, and as dangerous to our free institutions; and we pledge the Democracy of the State of Florida to the opposition of the same."

The nominations were: For Treasurer, J. B. Whitfield; Justices of the Supreme Court, R. F. Taylor and Francis B. Carter; Railroad Commissioners, H. E. Day, J. M. Bryan, and J. L. Morgan; Congressmen, Stephen M. Sparkman and Robert W. Davis.

The Republican convention was held at Ocala, Aug. 9. The candidates for the offices of Supreme Court Justices were William C. Marshall for the long term and Leroy B. Vaillant for the short term. H. L. Anderson and E. R. Gunby were candidates for Congress.

The result of the election was a complete victory for the Democrats. The Legislature, consisting of

32 Senators and 68 Representatives, will be unanimously Democratic. A constitutional amendment, which was carried by a large majority, changes the section regarding sureties on the official bonds of State officers by including county and municipal officers, and adding that "any duly organized and responsible guarantee or surety company, either foreign or domestic, lawfully doing business in this State, may become and be accepted as surety on all such official bonds."

FRANCE, a republic in western Europe, proclaimed on Sept. 4, 1870, when the Emperor Napoleon III was deposed. The legislative power is vested in the Senate and the Chamber of Deputies, which unite to form the National Assembly for the election of a President or to revise the Constitution. The Senators number 300. They are now elected for nine years by electoral bodies in the departments formed of chosen electors and the representatives of the departments in the Chambers and the local councils. Of the 75 Senators who were elected for life under the law of 1875, there were 26 survivors at the end of 1897. The Deputies number 584, elected for four years by *arrondissements* or by subdivisions of *arrondissements* when the population exceeds 100,000. No candidate can stand for more than one constituency at a time, and no prince of a deposed French dynasty can be a candidate, nor any person previously condemned by a court of law. The President is elected for seven years. Félix Faure was elected President of the republic on Jan. 17, 1895, to succeed Sadi-Carnot.

The Cabinet, formed on April 30, 1896, was composed at the beginning of 1898 as follows: President of the Council and Minister of Agriculture, J. Méline; Minister of the Interior, M. Barthou; Minister of Finance, G. Cocheru; Minister of Foreign Affairs, M. Hanotaux; Minister of War, Gen. Billot; Minister of Marine, Admiral Besnard; Minister of the Colonies, A. Lebon; Minister of Public Worship and Education, M. Rambaud; Minister of Justice, M. Milliard, appointed on Dec. 2, 1897; Minister of Commerce and Industry and of Posts and Telegraphs, Henri Boucher; Minister of Public Works, M. Turrel.

Finances.—The budget estimates for 1898 make the total revenue 3,413,916,088 francs, of which 3,232,992,549 francs are the ordinary revenue, 55,495,059 francs various extraordinary receipts, 6,800,000 francs exceptional receipts, 66,591,328 francs *recettes d'ordre*, and 52,037,152 francs the revenue of Algeria. Of the ordinary revenue 482,132,136 francs come from direct taxes, 39,832,577 francs from taxes assimilated to direct taxes, 1,975,069,400 francs from indirect taxes, 679,867,550 francs from Government monopolies and factories, and 56,090,886 francs from state domains and forests. The direct contributions comprise 93,273,138 francs from the personal and property tax, 118,632,730 francs from the land tax, 82,005,308 francs from the tax on buildings, 59,717,140 francs the tax on doors and windows, 127,442,990 francs from trade licenses, and 1,060,830 francs from the tax for advertisement. The taxes assimilated to direct taxes are 7,006,650 francs from property in mortmain, 2,275,070 francs from mines, 5,154,500 francs from verification of weights and measures, 12,800,000 francs from carriages and horses, 3,326,000 francs from velocipedes, 5,947,535 francs from the military tax, and 3,322,822 francs from other taxes. Of the indirect taxes registration yields 506,221,100 francs, the stamp duty 170,295,200 francs, income from transferable securities 67,661,000 francs, the tax on stock-exchange operations 5,053,000 francs, import duties 382,884,000 francs, statistical dues 6,779,000 francs, navigation dues 7,667,000 francs, customs duty on salt 24,968,000 francs, various dues and

finer 5,925,190 francs, taxes on wine, cider, etc., 170,484,000 francs, tax on beer 23,723,500 francs, tax on spirits 268,733,000 francs, railroad taxes 54,083,500 francs, licenses for beverages 13,693,000 francs, various excise duties 74,435,500 francs, and the duty on sugar 192,463,500 francs. The revenue from Government monopolies and factories is made up of 392,885,900 francs from tobacco, 43,040,600 francs from matches and gunpowder, 230,196,200 francs from posts, telegraphs, and telephones, and 13,744,850 francs from other establishments.

The total expenditure for France was estimated for 1898 at 3,342,632,679 francs and Algerian expenditure at 71,147,857 francs, making the total budget 3,413,780,536 francs. Of the expenditure for France 1,247,832,789 francs are for the public debt, 13,318,737 francs for the President, Senate, and Chamber of Deputies, 19,397,710 francs for the Ministry of Finance, 35,039,533 francs for the Ministry of Justice, 15,239,800 francs for the Ministry of Foreign Affairs, 74,171,495 francs for the Ministry of the Interior, 603,684,297 francs for the ordinary and 25,867,100 francs for the extraordinary expenses of the army, 284,795,500 francs for the navy, 213,602,604 francs for the Ministry of Instruction and Fine Arts, 43,065,553 francs for the Ministry of Worship, 205,284,888 francs for the Ministry of Commerce, Industry, Posts, and Telegraphs, of which 170,252,211 francs are the working expenses of the post office and telegraphs, 88,030,868 francs for the Ministry of the Colonies, 28,767,268 francs for the Ministry of Agriculture, 185,157,494 francs for the Ministry of Public Works, 208,657,881 francs for the *régie* and collection of taxes, and 40,724,162 francs for repayments.

The national debt on Jan. 1, 1896, amounted to the capital sum of 31,094,356,744 francs, of which 22,005,373,951 francs represent the consolidated debt, 227,450,532 francs the Morgan loan, 3,936,491,000 francs redeemable debt, 3,371,429,015 francs annuities, etc., 1,143,607,551 francs floating debt, and 310,004,695 francs guaranteed debts. The debt charges in 1898 amounted to 1,247,832,789 francs, of which 693,680,314 francs were for the consolidated debt, 321,896,231 francs interest and amortization of redeemable loans, and 232,256,244 francs for floating debt.

The revenue of the departments amounted collectively to 273,527,833 francs in 1895, and the expenditure to 272,328,307 francs; departmental debts, 418,992,744 francs. The ordinary revenue of the communes of France for 1896 was estimated at the aggregate sum of 740,146,826 francs, and their expenditure at 705,590,038 francs; the sum of their debts in 1895 was 3,515,153,501 francs. The revenue of Paris was estimated for 1897 at 302,271,967 francs of ordinary and 42,119,660 francs of extraordinary receipts; debt, 1,769,000,000 francs.

The Army.—The French army is composed of 145 divisional regiments of infantry, each of 62 officers and 1,591 men; 18 regional regiments, containing 51 officers and 1,560 men each; 30 battalions of chasseurs of 4 or 6 companies, each company containing 19 officers and 552 men; 4 zouave regiments, each numbering 73 officers and 2,551 men; 4 regiments of Algerian tirailleurs, each having 103 officers and 2,632 men; 2 regiments of 5 battalions of foreign legionaries; 5 battalions of African light infantry; 13 regiments of cuirassiers, 21 of mounted chasseurs, 14 of hussars, and 6 of African chasseurs, each regiment containing 5 squadrons, with 37 officers, 792 men, and 722 horses; 3 regiments of spahis, 2 of 5 squadrons and 1 of 8 squadrons, and 1 regiment of Tunisian spahis; 8 remount companies, each of 299 men; 40 regiments of field artillery, comprising 428 mounted, 52 horse, and 16 mountain batteries, besides 4 mounted and 8 moun-

tain batteries in Algeria and Tunis; 16 battalions of foot artillery, each of 6 batteries; 4 batteries of foot artillery serving in Africa; 6 regiments of sappers and miners, containing 3 or 4 battalions, and 1 company of sapper conductors; 1 regiment of railroad sappers; and 20 squadrons of train, 12 of 4 and 8 of 3 companies.

The peace strength of the army, as fixed in the budget for 1898, was 546,044 men, including 26,402 officers, in France; in Algeria, 55,911 men, of whom 2,197 are officers; in Tunis, 13,458 men, of whom 552 are officers. The total number of horses is 142,038. Of the troops stationed in France 332,390, including 12,005 officers, belong to the infantry; 66,611, including 3,489 officers, to the cavalry; 80,482, including 3,880 officers, to the artillery; 12,155, including 460 officers, to the engineers; 8,668, including 361 officers, to the train; 11,846 to the administrative service; 3,222, including 373 officers, to the military schools; 1,959, of whom 1,709 were officers, were detailed; and 3,418 officers and 707 men belonged to the general staff, making the total strength of the army corps 512,152 men, including 20,195 officers. The total active army in France numbered 521,458 men, including 25,695 officers, besides which there were the gendarmerie, numbering 21,536, including 624 officers, and the Garde Républicaine, numbering 3,050, including 83 officers. In Algeria there were 378 officers and men on the general staff, 757 detailed among the troops, 36,865 infantry, 3,537 administrative troops, 7,643 cavalry, 2,584 artillery, 867 engineers, and 2,158 train; the total active army numbering 53,654, including 1,340 officers, and the gendarmerie 1,122 officers and men. In Tunis there were 91 on the general staff, 108 detailed, 8,842 infantry, 1,853 cavalry, 854 artillery, 340 engineers, and 696 train, the total active forces numbering 13,303, including 584 officers, and the gendarmerie 155. Deducting vacancies, sick, and furloughed, the present effective in 1898 was returned as 541,026 active troops and 25,790 in the gendarmerie and Garde Républicaine. The war effective of the active army and reserves is estimated at 2,350,000, besides which there is the territorial army of 900,000 and 1,100,000 territorial reserves, making the nominal military strength 4,350,000 men, of whom not more than 2,500,000 would be available.

The Navy.—The naval force afloat on Jan. 1, 1898, comprised 18 first-class, 10 second-class, and 9 third-class battle ships, 16 coast-defense vessels, 11 first-class, 14 second-class, and 2 third-class cruisers, 12 lookout vessels, 13 torpedo gunboats, and 119 first-class, 78 second-class, and 45 third-class torpedo craft. Of these, 2 battle ships, 11 first-class and 16 other cruisers, 2 lookouts, 6 torpedo gunboats, and 13 destroyers were unfinished. A new programme of construction has been proposed, involving the expenditure in eight years, beginning with 1898, of 721,816,000 francs, which will add to the navy 8 battle ships, 10 armored cruisers, 10 other cruisers, 10 destroyers, and 42 torpedo boats. The type of the "Charlemagne," with the heavy guns coupled in turrets, displacing about 12,000 tons, with 15½-inch side armor, engines of 14,000 horse power, designed to make 18 knots, and having an armament of 4 12-inch breech loaders, 10 5.5-inch quick firers, 8 more of 4-inch caliber, and 34 small ones, is chosen for the latest battle ship laid down at Brest. Of this class the "St. Louis," "Gaulois," and "Jena" have been launched. The new armored cruiser "Montcalm" and three sister ships now in hand will have a displacement of 9,517 tons, and three screws, giving a speed of 21 knots. Like these, the smaller "Dupleix," "Desaix," and "Kléber" will have both deck protection and side armor. One of the latest torpedo boats, the "Forban," shows a speed of over 31 knots.

The French navy was commanded in 1897 by 15 vice-admirals, 30 rear admirals, and 125 captains, with 1,783 other officers, and manned by 39,846 petty officers, seamen, etc., to which number about 1,000 were added in 1898.

Commerce and Production.—The production of wheat in 1896 was 110,742,316 hectolitres; of barley, 16,241,431; of oats, 92,033,398; of rye, 24,464,730; of buckwheat, 8,604,669; of corn, 10,721,936; of mixed grain, 4,130,481; of potatoes, 129,543,389 quintals; of sugar beet, 84,846,336; of other beets, 114,109,034; of colza, 595,441; of flax, 188,463; of flaxseed, 132,881; of hemp, 243,892; of hemp seed, 97,077; of tobacco, 262,480. The vintage was 44,044,279 hectolitres, but fell off in 1897 to 32,351,000 hectolitres. There were 2,849,658 horses, 569,312 mules and asses, 13,334,631 cattle, 21,190,603 sheep, 6,402,370 pigs, and 1,499,005 goats on Jan. 1, 1897. The production of cocoons in 1896 was 9,318,765 kilogrammes. The value of the mining products for 1896 was 345,289,311 francs. There were 28,019,893 tons of coal and lignite raised, and 3,679,767 of iron, while there were 2,003,860 tons of pig iron, 756,793 of manufactured iron, and 714,523 of steel made. The production of sugar in 1896 was 593,647 tons. Of alcohol 2,022,000 hectolitres were distilled.

The total value of the general commerce of 1896 was 4,929,000,000 francs for imports and 4,594,000,000 francs for exports. The value of the special imports was 3,799,000,000 francs, and of the special exports 3,401,000,000 francs. In 1897 the special imports amounted to 4,000,126,000 francs, and exports to 3,401,000,000 francs. The imports of food products in 1896 were 1,007,000,000 francs, and the exports 652,000,000 francs in value. The imports of raw materials were 2,174,000,000 francs, and exports 836,000,000 francs. The imports of manufactured goods were 618,000,000 francs, and exports 1,913,000,000 francs. The values of the principal imports in the special commerce of 1896 were as follow: Wool, 365,000,000 francs; wine, 293,000,000 francs; raw silk, 180,000,000 francs; coffee, 175,000,000 francs; coal, 174,000,000 francs; cotton, 167,000,000 francs; timber, 150,000,000 francs; oil seeds, 148,000,000 francs; cereals, 123,000,000 francs; hides and furs, 111,000,000 francs; flax, 62,000,000 francs; cattle, 58,000,000 francs; ores, 51,000,000 francs; silk goods, 50,000,000 francs; woolen goods, 45,000,000 francs; sugar, 44,000,000 francs; cotton goods, 38,000,000 francs. The values of the leading exports were as follow: Woolen goods, 294,000,000 francs; silk goods, 247,000,000 francs; wine, 242,000,000 francs; fancy articles, 161,000,000 francs; raw wool and yarn, 145,000,000 francs; cotton goods, 131,000,000 francs; linen cloth and garments, 99,000,000 francs; raw silk and yarn, 93,000,000 francs; metal wares and tools, 85,000,000 francs; leather, 83,000,000 francs; leather goods, 82,000,000 francs; cheese and butter, 82,000,000 francs; chemical products, 63,000,000 francs; skins and furs, 62,000,000 francs; spirits, 49,000,000 francs; sugar, 40,000,000 francs.

Of the general imports in 1896 the value of 1,516,000,000 francs came by sea in French ships, and 1,965,000,000 francs in foreign ships, making a total of 3,481,000,000 francs imported by sea, while 1,448,000,000 francs represent the trade over the land frontiers. Of the total value of the general exports 3,137,000,000 francs went by sea, 1,694,000,000 francs being carried in French, and 1,443,000,000 francs in foreign ships, while 1,457,000,000 francs went by land.

The imports of precious metals in 1896 were 266,107,602 francs, of which 159,147,520 francs were gold and 106,960,082 francs were silver. The exports of coin and bullion were 481,714,245 francs, of

which 286,743,155 francs were gold and 194,971,090 francs were silver.

The values imported from and exported to the principal foreign countries in the special commerce of 1896 are shown in the following table:

COUNTRIES.	Imports.	Exports.
Great Britain.....	511,000,000	1,081,000,000
Belgium.....	288,000,000	501,000,000
Germany.....	308,000,000	340,000,000
United States.....	314,000,000	225,000,000
Algeria.....	197,000,000	218,000,000
Spain.....	288,000,000	100,000,000
Argentine Republic.....	213,000,000	56,000,000
Italy.....	127,000,000	115,000,000
Russia.....	181,000,000	.....
Switzerland.....	.....	180,000,000
India.....	168,000,000	.....
Brazil.....	69,200,000	.....

Navigation.—During 1896 there were 101,843 vessels, of 21,753,227 tons, entered and 102,891, of 22,385,657 tons, cleared at French ports. Of the total number entered 8,432, of 4,323,226 tons, were French vessels engaged in the foreign trade, of which 7,644, of 4,210,683 tons, carried cargoes and 788, of 112,543 tons, came in ballast; 19,766, of 10,374,025 tons, were foreign vessels, of which 17,451, of 9,865,925 tons, carried cargoes and 2,315, of 508,100 tons, were in ballast; and 73,645, of 7,055,976 tons, were French coasting vessels, of which 55,932, of 6,080,736 tons, carried cargoes and 17,713, of 975,240 tons, were in ballast. Of the total number cleared 9,122, of 4,810,734 tons, were French vessels in the foreign trade, of which 7,645, of 4,222,708 tons, carried cargoes and 1,477, of 588,026 tons, were in ballast; 20,124, of 10,518,947 tons, were foreign vessels, of which 13,176, of 6,041,952 tons, carried cargoes and 6,948, of 4,476,995 tons, were in ballast; and 73,645, of 7,055,976 tons, were coasting vessels, of which 55,932, of 6,080,736 tons, carried cargoes and 17,713, of 975,240 tons, were in ballast.

The French commercial navy on Jan. 1, 1897, consisted of 14,301 sailing vessels, of 390,394 tons, and 1,235 steamers, of 503,877 tons. Of the sailing vessels 266, of 142,588 tons, and of the steamers 174, of 263,051 tons, navigated the high seas, while 192 sailing vessels, of 20,288 tons, and 248 steamers, of 186,881 tons, were employed in European seas, and the rest in the coasting trade or in port service or the fisheries.

Communications.—The railroads of France have been constructed for the most part by companies with a Government guarantee on the condition that they shall become the property of the State at the end of a fixed period. The State in recent times has built lines that the companies would not undertake and afterward leased them to companies. It also operates a system comprising 1,700 miles. Local lines receive subventions from the Government or from the departments. The guarantees for four of the six great companies will come to an end in 1914 and for the other two in 1934 and 1935. All their properties will revert to the State between 1950 and 1960. The length of line in operation in 1896 was 23,500 miles, not including 2,519 miles of local interest. In 1895 there were 22,505 miles, built at a cost of 15,521,000,000 francs.

The post office in 1895 transmitted 760,708,000 internal letters, 39,899,000 registered letters and packets, 49,015,000 postal cards, and 951,267,000 newspapers, samples, etc., and in the international and transit service 147,397,000 letters, 2,268,000 registered letters and packets, 6,516,000 postal cards, and 136,683,000 newspapers, samples, etc.

The telegraph lines on Jan. 1, 1896, had a total length of 53,267 miles, with 197,307 miles of wire. There were 44,793,860 telegrams sent in 1895, of which 36,596,627 were internal, 5,879,917 interna-

tional, 1,891,601 in transit, and 1,425,715 official. In Paris there are 237 miles of pneumatic tubes.

The Dreyfus Affair.—The case of Alfred Dreyfus, captain of artillery detailed on the general staff, who was convicted of treason in December, 1894, and has since been kept in solitary confinement on the Île du Diable, Cayenne, gave rise to a controversy affecting the political, military, and judicial institutions of France, the social, economic, and religious divisions of the French people, the foreign relations of the Government, the course of domestic policy, and the fate of parties and statesmen. Dreyfus was arrested secretly on Oct. 14, 1894. His wife was intimidated into silence by Col. du Paty de Clam, so that it was two weeks before the public knew, through a newspaper that got the information from a leakage in the War Office, that an officer had been arrested. He was tried by court-martial with closed doors and sentenced to military degradation and imprisonment for life. The public was led to believe that he had been caught carrying on a treasonable correspondence with the military *attaché* of a foreign embassy, presumably that of Germany, that the proofs of his guilt were flagrant. The facts of the case were known scarcely to the ministers of the Dupuy Cabinet, except Gen. Mercier, who was so convinced of the guilt of Dreyfus that he controlled the proceedings of the court in a measure and influenced its judgment. There had been found a memorandum of military information, none of it very important—notes on a hydraulic gun brake, on covering troops and tactics of the coming autumn manœuvres, the firing manual, the dispatch of troops to Madagascar, and contemplated changes in the artillery. Where this was found, the military police never divulged. The officials who investigated the matter concluded that none but a staff officer possessed such a variety of information, and that none but an officer of artillery would employ the technical language in which one or two of the notes were couched. Col. Sandherr, the head of the intelligence department, had his suspicions directed soon to Capt. Dreyfus, the more readily because he was a Jew, studious, inquisitive, ambitious, taciturn, an object of dislike to his comrades. The handwriting resembled his, and the moral evidence deduced from his circulating among the bureaux seeking knowledge that would be valuable to a spy and from reports as to his private life and circumstances, which were not well founded, as it turned out afterward, carried conviction to the chief of the military police, who was one of the most prejudiced Anti-Semites in the army. The motive of avarice seemed to be wanting, for Dreyfus belonged to the family of Alsatian Jewish financiers who had acquired wealth in Chilean speculations, but this fact inclined his fellow-officers to judge him the more harshly, imbued as they generally were with the peculiar form of Anti-Semitism developed in France, where Jewish capitalists are few, but very wealthy and powerful, and are distrusted not alone because they have acquired control of the Bank of France and the railroads and great influence over the Government of the republic, but because at the same time they have enormous interests and family and business connections in other countries and are believed to have the power and the inclination to shape domestic and foreign policy so as to serve the purposes of international finance.

The proceedings of the Dreyfus court-martial, when they became known little by little to leading statesmen, impressed some of them, especially jurists, like ex-Minister Trarieux, with doubts as to the sufficiency of the evidence. There was the *bordereau* of notes and the indirect evidence as to the condemned man's habits and character. As to the

bordereau, which was the only material evidence, nothing connected it with him except the similarity of handwriting. Five experts gave testimony, of whom two declared that the writing was not that of Dreyfus, three that he had written the *bordereau*, but of these latter two held that he had written it in a disguised hand, introducing strokes and features essentially different from his own, though no motive was apparent for such a proceeding, and one put forward a theory that he had traced or copied each word from other documents written by a person whose writing resembled his own. Dreyfus from his island prison wrote piteous letters to his wife and family, adjuring them to spare no efforts to establish his innocence and save his honor. His brother Mathieu spent half his fortune in endeavors to reopen the case. The officials of the War Office became more and more stubborn in resisting the proposal of revision, more emphatic in their con-

justice; jurists and lovers of freedom that arbitrary military power should override the barriers protecting the life and liberty of the individual. On the other hand, Clericals, Monarchists, Boulangists, some of the Radicals and Socialists, all those who believed that the republic was undermined by financial corruption or that it had rendered France weak through its rulers' incapacity and want of authority, and who looked to the army to establish a more authoritative *régime*, made a political issue of the Dreyfus case and by an abusive press campaign stirred the passions of the multitude against all who favored a retrial by tales of an international Jewish syndicate for the deliverance of Dreyfus, of foreign political machinations to insult and demoralize the army. The indictment presented against Dreyfus in November, 1894, as drawn up by Major Bexon d'Ormescheville, intimated that Germany was the foreign power to which he had sold mili-



PRISON OF CAPT. DREYFUS, ON ILE DU DIABLE, COAST OF FRENCH GUIANA.

victions of the prisoner's culpability. In answers to interpellations and in semi-official notes in the press it was hinted that there were grounds for their belief more certain than the evidence of the *bordereau*. Inquiring statesmen were told in confidence that the verdict was not only just, but well founded, because secret documents carrying absolute proof were shown to the judges in their chamber, documents which for reasons of state could not be produced in the courtroom, even behind closed doors. This staggered jurists still more than the idea that hasty and prejudiced military men, unskilled in weighing evidence, had convicted an innocent man. The logical French mind, wedded to legality and the safeguards of liberty, was disturbed at the thought that any one could be convicted in a French court on evidence with which the accused was not confronted and which he and his counsel had no opportunity to rebut. Patriots were annoyed at the thought that fears of war or foreign complications should interfere with the course of French

tary secrets, mentioning as a suspicious circumstance his visiting relatives in Alsace without the interference of the German authorities. Premier Méline and Gen. Billot, when the agitation became violent for and against revision toward the close of 1897, took the ground that the matter was *chose jugée*, not subject to discussion or appeal except in the improbable case of new evidence being discovered, denouncing those who asked for a rectification of the judicial irregularities as assailants of the authority of the law and the honor of the army.

Some of the documents and facts that left no doubt in the minds of the army chiefs of the guilt of Dreyfus, but which they refused to publish, were letters of Col. von Schwarzkoppen to the Italian *attaché*, Col. Panizzardi, found in the early part of 1894, one of which referred to a person designated by his initial D. as having brought "a number of very interesting things," another to plans of one of the French fortresses furnished by the "Canaille de D." Another, dated in November, 1896,

in reference to a coming interpellation on Dreyfus in the French Chamber, contains a warning from one diplomatist to the other to say, if questioned, that he never had any relations with this Jew. There was the fact that Dreyfus when ordered to copy the *bordereau* previous to his arrest trembled and was unable to finish, pleading numbness. More convincing were the confessions that Dreyfus is said to have made on the day of his degradation. Capt. Lebrun-Renaud reported him as saying that if he handed over documents to the foreigner it was as a bait to get more important ones, that they were copies, not original documents, and that the minister knew his motive. To Capt. d'Attel he is reported to have said that what he handed over was worth nothing, and if he had been left alone he would have had more in return. Doubt was thrown on these confessions by the statement of Major Forzinetti that Capt. Lebrun-Renaud told him at the time that Dreyfus would not confess, and by the fact that Capt. d'Attel died without reporting a confession, the report coming from a friend who conversed with him at the time. Both confessions, therefore, seemed like afterthoughts.

The *bordereau*, which formed the material evidence against Dreyfus, was believed to have been delivered to the military authorities by an Alsatian porter in the employ of Col. Von Schwarzkoppen, the German military *attaché*. Lieut.-Col. Picquart, chief of the intelligence bureau, who had presented the proofs against Dreyfus in 1896, came upon a telegram indicating a treasonable correspondence between Major Walsin Esterhazy, an infantry officer, and the German *attaché*. Getting hold of letters written by Esterhazy, he was struck with the resemblance of the writing to that of the Dreyfus *bordereau*. Pursuing his inquiries, he found that Esterhazy had taken pains to obtain the very information contained in the *bordereau*. Mathieu Dreyfus, M. Scheurer-Kestner, Vice-President of the Senate, whom he interested in the matter, and others besides Col. Picquart, became convinced that Major Esterhazy, not Dreyfus, was the traitor and the author of the *bordereau*. The handwriting was more like his—so much so that when confronted with a facsimile he declared that Dreyfus had imitated his hand. Esterhazy, by his antecedents, character, and circumstances, was a more likely subject for treasonable practices under pecuniary temptations, and the indications appeared stronger when letters of his were found in which he reviled the army and its generals, and expressed a wish to be a Prussian *Chien* and kill hosts of Frenchmen. Mathieu Dreyfus had his suspicions directed to Esterhazy by a broker who had done business for the latter, and who recognized in a facsimile of the *bordereau* printed in a newspaper the exact characteristics of Esterhazy's handwriting. While Col. Picquart was investigating the case against Esterhazy he was dismissed from his post and sent on an insignificant detail to Algeria, Col. Henry taking his place at the War Office. The chiefs at the War Office afterward said that Picquart was sent away because he occupied himself too much with the Dreyfus case. He was ordered to the frontiers of Tunis, but the general commanding the district would not allow him to proceed, on account of the danger. While he was away he learned from Col. Henry that he was charged, not only with opening Esterhazy's letters in the post, but with attempting to suborn two officers to say that a letter incriminating Esterhazy was written by the German Emperor, and with having abstracted the document from the secret *dossier* which fell into Esterhazy's hands. He also received mysterious telegrams purporting to come from a female friend, who, using the familiar nicknames of their private correspondence, let him know

that his forgery of the document incriminating Esterhazy had been discovered. Col. Picquart, on receiving confirmation from his superiors of the charges against him, placed his interests in the care of an advocate, M. Leblois.

Major Esterhazy said that he had first been informed of the investigations of Col. Picquart by a mysterious veiled lady, who made an appointment with him and gave him a copy of one of the secret documents relating to Dreyfus in the *dossiers* of the War Office, which he delivered up again to the Minister of War. On a denunciation lodged by Mathieu, Major Esterhazy was tried by court-martial in January, 1898, on the charge of dealing with a foreign power or its agents to incite them to commit hostilities against France, or to procure the means of so doing. The trial was determined on by the Council of War in spite of the report of Gen. Ravary censuring Lieut.-Col. Picquart and denouncing the proceedings as aiming at a revision of the Dreyfus trial. It was held expressly by reason of the directness of the accusation and of the sensation caused by it in public opinion. After one public sitting at which nothing was elicited except the denials of Esterhazy one was held behind closed doors, at the end of which the court unanimously found that the accused was not the author of the *bordereau* nor guilty of treason. The experts who had testified in 1894 that the *bordereau* was in the handwriting of Dreyfus, now gave as their opinion that Dreyfus had prepared it by tracing the separate words from documents written by Esterhazy. After the trial Lieut.-Col. Picquart was placed under arrest. The result of the secret trial of Esterhazy was to redouble the sensation which it was held to appease. Émile Zola, the novelist, printed an open letter to the President of the republic in which he accused Lieut.-Col. du Paty de Clam of having been the author of the original judicial error committed in the conviction of Capt. Dreyfus and of having afterward bolstered up his pernicious work by absurd and culpable machinations. The chiefs of the general staff—Gen. Mercier, Gen. de Boisdeffre, Gen. Gonse, and Gen. Pellieux—with Major Ravary and other subordinates, were charged with being accomplices in the conspiracy against Capt. Dreyfus, and the Minister of War, Gen. Billot, with having in his hands certain proofs that the convicted man was innocent at the time when he pledged his honor in the Chamber that he believed him guilty, the motive being a purely political one, that of shielding the general staff from the consequences of the first miscarriage of justice. The first court-martial, M. Zola declared, committed an illegal act, though acting, no doubt, in good faith, by convicting an innocent man on the strength of a document which was kept secret; the second court-martial screened the illegal act committed by the first by knowingly acquitting a guilty man in obedience to orders. He challenged the persons whom he accused to bring him before the assize court and give him an opportunity to prove his charges in the light of day. A petition signed by many scholars and professional men of eminence called on the Government to order a revision of the Dreyfus trial on account of the violation of judicial forms and the mysteries in which it was enveloped. The Minister of Justice ordered the prosecution of M. Zola and the publisher of the newspaper "Aurore," on the complaint of the Minister of War, acting in behalf of the military personages attacked. M. Cavaignac in the Chamber interpellated the Government, asking for publication of the declarations of Dreyfus to Capt. Lebrun-Renaud, so that men of good will might find in them the necessary elements of conviction. Student demonstrations in Paris against Zola and the Jews were followed by

Anti-Jewish riots in Nantes and other French towns and more serious ones in Algeria. When the Cavaignac resolution was discussed insults and blows were exchanged between Clericals and Socialists. M. Méline acknowledged the existence of a document containing a confession of Dreyfus, but refused to produce it lest it should be discussed and the *chose jugée* called in question. The judgment was the legal truth, which he appealed to all good Frenchmen to accept in deference to the authority of justice. He gave warning that the coming Zola trial would not be transformed into a revision of the Dreyfus affair, endangering the domestic peace, the military power, and the good repute of France abroad; the jury would simply have in charge the defense of justice and of the army. The Chamber sustained the Government in upholding the inviolability of the *chose jugée* by the great majority of 376 to 133. The prosecution of M. Zola and the "Aurore" for defamation was based on the following passages in his letter, a single item in his long and detailed arraignment:

"A court-martial has, in obedience to orders received, dared to acquit M. Esterhazy—a supreme rebuff dealt at all truth and justice. It is over. France bears on her cheek this stain. History will write that it was under your presidency that such a social crime was possible.

"They have brought in an iniquitous verdict which will forever weigh upon our courts-martial, which will sully with suspicion all their decisions. The first court-martial may have been unintelligent; the second is necessarily criminal.

"I accuse the second court-martial of having screened this illegality by order, by committing, in its turn, the judicial crime of knowingly acquitting a culprit."

M. Zola summoned over a hundred witnesses, including the members of the Government and the military authorities who were in office during the trial of Dreyfus. M. Delegorgue, the president of the court, would not allow any questions to be put regarding the prosecution of Dreyfus. Women who had trafficked in the secrets of the War Office remained away on the plea of illness. The generals, in full uniform, were allowed to impress the jury with the necessity of a conviction to save the dignity of the army. Gen. de Pellieux said that if they deprived the soldiers of their confidence in their chiefs they would be sending their sons to a butchery in the day of danger, which was nearer, perhaps, than they supposed. M. Labori, counsel for the defense, protested that there was no question of attacking the army or the courage of its officers. Gen. De Pellieux quoted the letter supposed to have been found in 1896 in the waste-paper basket of a military *attaché*, in which the latter mentioned Dreyfus by name, and cautioned his colleague never to speak of the relations they had had with that Jew. Gen. Gonse said that there were other documents too delicate to be brought there. Gen. de Boisdeffre warned the jury, as representing the nation, that if the nation had not confidence in the chiefs at the head of the army, who organize the national defense, those chiefs were ready to leave the task to other men.

This threat of the resignation of the general staff had a profound effect on the jury, and not less so the rulings of the judge, who refused the counsel the right to interrogate the generals, refused Lieut.-Col. Picquart the right to summon other distinguished generals to clear his character from the aspersions of his superiors. The jury found the defendants guilty, and the court imposed the maximum penalty, a year's imprisonment and 3,000 francs fine on Zola, and the same fine and three months' imprisonment on M. Perreaux, the publisher

of his letter. The verdict, which was delivered on Feb. 23, the trial having taken fifteen days, was received with frantic exultation by the public in the courtroom, who had freely carried on hostile demonstrations against the chief defendant during the proceedings, and they dispersed in tumult, acclaiming Esterhazy, who had refused to answer M. Labori, as a hero, and while shouting for the army and the generals, mishandling the few who cried "Vive la République." On an interpellation of M. Hubbard, Radical, regarding the attitude of the subordinates of the Government during the trial, the Government was sustained by a vote of 416 to 41, M. Méline having declared the army to be the respectful servant of the nation and the law. M. Zola appealed from the judgment on the ground of the irregularity of its proceedings, and on the technical ground that the Council of War, not the minister, should have lodged the complaint. The Court of Cassation quashed the judgment on this latter ground, holding that a military court is a permanent tribunal, and the sole judge of its own honor. A new indictment was framed so as to exclude all reference to the Dreyfus case or the secret documents, being based on one clause only of Zola's letter, the following words:

"A court-martial, acting under orders, has dared to acquit an Esterhazy, a blow at justice and truth."

The venue was changed to Versailles, and the date of trial was postponed till after the elections. The case was called on May 23, but M. Zola demanded to be tried before a Paris jury. The Court of Cassation denied the appeal, and the trial was opened on July 15. M. Perivier, the presiding judge, ruled so stringently against enlarging the scope of the inquiry that M. Zola and his counsel declined to proceed, and allowed judgment to go by default. The defendants were again condemned to undergo the maximum punishment. Lieut.-Col. Picquart, who meanwhile had fought a duel with Lieut.-Col. Henry and wounded his antagonist, was tried by court-martial and retired from the army, in which he was the youngest officer of his grade. Major Esterhazy challenged him, too, but with the man whom he believed to be a traitor he would not fight. Lieut.-Col. Picquart was not tried for forgery, and all the other charges fell through, except that of communicating to his lawyer his correspondence with Gen. Gonse relative to the Esterhazy affair, which was adjudged a breach of discipline.

The military authorities were finally led to take cognizance of the rumors of treasonable relations that Major Esterhazy had entertained with Col. Schwarzkoppen, the former German *attaché*, and he, to escape arrest, fled the country, after having been dismissed from the army with Col. du Paty de Clam, who was supposed to have concocted with him the plot against Col. Picquart and sent the suspicious telegrams.

When M. Cavaignac's speech reciting the documents that gave absolute proof of the guilt of Dreyfus was placarded in all the communes of France, Col. Picquart wrote a letter to the Minister of War, undertaking to prove that the first two documents had nothing to do with Dreyfus, and that the third was a forgery. About the same time a careful examination of this last document was instituted at the War Office, and it was discovered that the blue paper on which it was written was different from that used by Col. von Schwarzkoppen. The discovery of one forgery threw doubt upon other papers which had carried conviction to the heads of the Government and of the army, but which never had been made public. In the pigeonholes of the Ministry of War were said to be some letters signed by the name of the German Emperor, mentioning the

services of Dreyfus, but these had long been suspected to be forgeries.

This new development rendered more doubtful than ever the justice of Dreyfus's condemnation. That letter of 1896 in which he was mentioned by name, which had been the most convincing evidence of his guilt to the officers of the general staff and had removed all doubts from the mind of M. Cavaignac, was subjected to further tests, and found to be a document composed of scraps of different colored paper joined together. The wording of the document, and also the handwriting, showed additional indications that it was a forgery. Lieutenant-Col. Henry, its suspected author, was arrested in the beginning of September, and under the examination of M. Cavaignac he broke down and confessed that he had fabricated the entire letter. He said that his chiefs were much disturbed and he wanted to quiet them, to restore tranquillity to their minds, so that they might be better prepared if war should come; that he acted for the good of the country. The documents of 1894 he had altered and put dates to. Henry killed himself in prison on Aug. 31 without making any more revelations. The confidence of statesmen and of the public in the justice of the Dreyfus judgment in spite of its illegality melted away. [The press veered about and demanded revision.] Mme. Dreyfus made an application for a new trial on the ground of a fresh incident such as the law calls for, and the Government placed the matter before the Court of Cassation, which granted the demand and decided to try the case itself instead of referring it to another court-martial. A commission was sent in November to take the deposition of Alfred Dreyfus in the Île du Diable. Gen. de Boisdeffre and Gen. Mercier resigned from the general staff, with others who resisted revision to the last.

The action of Col. Picquart in publicly challenging the documents cited by M. Cavaignac was followed by his arrest on the criminal charge of having communicated secret documents, presumably the charge which was not proved against him at the court-martial, of showing the contents of the secret dossier to M. Leblois, his lawyer. He was put into prison on July 13. While there he prepared at the request of M. Brisson a statement of all he knew about the Dreyfus case. When he was brought up for trial on Sept. 21 the military authorities intervened, and he was handed over to them to be tried by a military tribunal, presumably on the charge of having forged the letter implicating Esterhazy. As he was being led away to solitary confinement in a fortress he exclaimed that if he was found dead in his cell, as Henry was, it would not be a suicide, but an assassination.

The Elections.—Parliament was convened on Jan. 11. M. Brisson was re-elected president of the Chamber by 283 votes to 59. After the budget was voted both houses adjourned on April 7. The work of the expiring Parliament included the reform of criminal investigation, the protection of children, benefit societies, workmen's pensions, industrial accident insurance, and succession duties. The general elections were held on May 8. A small number of candidates of the old monarchical parties came forward. Most of the former royalists and imperialists now appeared frankly as republicans, mostly supporters of the Méline Cabinet, whose opponents were the Radicals and Socialists of all shades, advocates of an income tax and of a revision of the Constitution curtailing the powers of the Senate. The ephemeral Nationalist party (composed of the elements that once adhered to Boulanger), making capital of the Dreyfus case, denounced foreigners as exercising deleterious influence on the national character and interests, and sought elec-

tion as champions of the army. The first ballot promised but a slender majority for the Government. The second ballot took place on May 22. The final result gave the Cabinet a majority of only 12, including the Rallied Republicans. The new Chamber contained 253 Moderate Republicans, 38 Rallied, 44 Conservatives, 104 Radicals, 107 Socialists, 20 Anti-Semites, and 15 of uncertain views, two thirds of whom were probable supporters of the Government. At the opening of the session on June 1 the ministry won a dubious victory by the election of Paul Deschanel as provisional president of the Chamber by 282 votes to 278 for Henri Brisson. M. Lebon, who had lost his seat, resigned the post of Minister of the Colonies. He was confirmed by a majority of 10. The Government was dependent on the support of the monarchists, and, on an interpellation on its general policy on June 14, mustered a majority of only 12, including the ministers themselves. This vote was a virtual defeat, inasmuch as the Chambers insisted on adding an amendment of the Radicals, accepted with a bad grace by M. Méline at the last moment, confiding in the Government's efforts for Democratic reforms by a union of Republicans only on the condition of its relying on a majority exclusively Republican. The Right naturally rejected the amendment, which was carried by Radical votes. In accepting it, after first refusing, M. Méline adopted a policy of Republican concentration, necessitating a thorough reconstruction of the Cabinet, if he desired to retain office. Having broken with the right, he still did not see his way to a coalition with the Left, and consequently decided on the following day to resign with his colleagues. He firmly declined M. Faure's invitation to form a new ministry.

The Brisson Cabinet.—The Méline Cabinet was the longest-lived of any under the third republic, having lasted over two years. Its chief mission was to develop the policy of protection for French agriculture and industry, of which its head was the leading exponent. In seeking a successor to M. Méline, the President of the republic first asked M. Ribot, chief of the Progressive party, the most numerous group of the Chamber, comprising the bulk of the Moderate Republicans, to form a ministry of conciliation. After M. Ribot had failed to effect conciliation with the Radicals, M. Sarrien, one of the least aggressive of the latter, endeavored to frame a programme on which both wings of the Republicans could unite. M. Peytral, another Radical, who was not an uncompromising advocate of the reform of the Senate and the progressive income tax, next attempted to form a Cabinet of union, but the advanced Radicals declined to support his efforts or to agree to any compromise with the Moderates. Hence, after the crisis had lasted two weeks, M. Faure turned to a representative Radical, M. Brisson, who, on June 28, organized a homogeneous Cabinet, as follows: President of the Council and Minister of the Interior, Henri Brisson; Minister of Finance, Paul Peytral; Minister of Education, Léon Bourgeois; Minister of Justice, Ferdinand Garrien; Minister of War, Godefroy Cavaignac; Minister of Marine, Edouard Simon Lockroy; Minister of Foreign Affairs, Théophile Delcassé; Minister of the Colonies, Georges Trouillot; Minister of Commerce, Émile Maruéjouls; Minister of Agriculture, Albert Viger; Minister of Public Works, Senator Tillaye. The new Premier, in reference to the incidents of the Dreyfus agitation which had brought about the electoral defeat and the downfall of the Méline ministry, promised to uphold the supremacy of the civil power over the military, to insure freedom of discussion in the Chamber, and to defend with energy the inde-

pendence of law and society against attempted encroachments. He announced the Cabinet's intention to carry out the democratic desires of the people, as expressed in the elections. The Government programme embraced two principal reforms, one fiscal and the other social, the first through a special bill replacing the taxes on personalty and realty by a graduated income tax, the second by means of retiring-pensions for working people. The new Government also proposed to settle the question of the succession duties, to reform the liquor laws, to create chambers of agriculture and loyally carry out the economic system of protection to industry and agriculture, to curb the speculation which is injurious to production, to expedite preparations for national defense, and to settle the question of a colonial army and of emigration to the colonies.

After the Henry episode the question of the revision of the Dreyfus sentence brought about the fall of the Brisson Cabinet by a coalition of the Moderates, the Rallied, the Monarchists, and the Nationalists. M. Cavaignac held out against revision, and finally resigned, and was succeeded by Gen. Zurlinden, who also opposed revision. M. Brisson and the Minister of Justice were determined to have the Dreyfus case reopened, if possible, and consequently Gen. Zurlinden resigned. The Minister of Justice then placed the matter before the Court of Cassation. The prosecution of Col. Picquart was compassed by Gen. Zurlinden after he left the Cabinet. Gen. Chanoine accepted the portfolio of Minister of War, but on account of a difference of opinion with the Premier as to the proceedings against Lieut.-Col. Picquart he also resigned during the recess of Parliament. The Radical and Socialist newspapers expressed suspicions of a military plot to overthrow the Government. When the Chamber reassembled on Oct. 25 the public were in a fever of excitement, and when the anti-revisionist, M. Déroulède, assailed the Government from the tribune, Gen. Chanoine suddenly offered his resignation as Minister of War to the Chamber. The Prime Minister was compelled by the extraordinary action of Gen. Chanoine to ask the adjournment of the discussion until the vacant post could be filled. Premier Brisson accepted an order of the day affirming the supremacy of the civil power, and it was carried by a majority of 13 votes. Demands were made, however, that the campaign against the army must cease, and when M. de Mahy offered a resolution demanding that the Government put an end to the insults to the army, it was adopted by a vote of 296 to 243. The ministry thereupon drew up a resolution to the effect that the Chamber was confident that the Government would take the necessary measures to prevent the campaign against the army, and this was defeated by 286 votes to 234. The ministers then left the House in a body and presented their resignations to President Faure. The fall of the Cabinet was followed by disturbances in the streets, created mainly by the Anti-Semites, which the police had difficulty in quelling.

The Dupuy Cabinet.—The presidents of the Chambers and party leaders urged upon M. Faure the formation of a Cabinet of Republican union, excluding the Right. M. Dupuy was commissioned to form a ministry. On Oct. 31, two days after the Court of Cassation had ordered the revision of the Dreyfus trial, the list was published as follows: Premier and Minister of the Interior, Charles Dupuy; Minister of Foreign Affairs, Théophile Delcassé; Minister of War, Charles de Freycinet; Minister of Marine, Edouard Simon Lockroy; Minister of Finance, Paul Peytral; Minister of Public Instruction, M. Leygues; Minister of Jus-

tice, M. Lebreton; Minister of Commerce, Paul Delombre; Minister of Public Works, Camille Krantz; Minister of the Colonies, M. Guillaumet; Minister of Agriculture, Albert Viger.

The ministerial declaration affirmed the supremacy of the civil power and expressed confidence in the army, which would not be left exposed to a campaign of insult. Justice also should be respected, and the Government would insure the execution of its decisions. The Government would prepare for the universal exhibition of 1900, and strive to strengthen the international position won for France by her loyalty, strength, and love of peace, and consecrated by a valuable alliance. A Cabinet of union among Republicans, the Government relied on a majority of Republicans pursuing Democratic, but not Utopian, objects. The fiscal measures announced included the substitution for the personal and household impost of a tax based without vexation or inquisition, on the external signs of wealth, and graduated so as to insure large remissions to the small taxpayers. The drink duties would be reformed. The passing of a workmen's superannuation bill for town and country was regarded as a social duty. For the benefit of agriculture, measures were promised for the organization of agricultural credit and insurance and the development of small holdings. The Chamber by 429 votes to 64 approved the intention of the Government to pursue a policy of reforms by relying solely upon a Republican majority.

Commercial Treaties.—After eight months of negotiations, a commercial convention was concluded with the United States, which was duly ratified and proclaimed by President McKinley on May 30, 1898. It was the first commercial treaty made under the provisions of the Dingley tariff bill giving the President power to suspend duties on a limited list of articles in exchange for reciprocal and equivalent reductions in favor of products and manufactures of the United States. As the result of the agreement France reduced her rates one half on American pork and lard and lard compounds, and imposed the minimum rates on fruits and timber, while the United States reduced the tariff rates about 20 per cent. on argols, brandies, still wines, vermouth, works of art, and some other articles.

The Fashoda Question.—The fall of the Brisson Cabinet occurred at the moment when the controversy with England regarding the presence of Capt. Marchand at Fashoda reached its most critical stage. The Egyptian Government, under English dictation, had in 1884 unwillingly abandoned to the Mahdists the annexed provinces in the Soudan and Equatorial Africa. In the treaties with Germany in 1890, and Italy in 1891, England obtained a recognition from those powers of the whole valley of the upper Nile as a British sphere of influence. France protested, and in 1890 organized the Liotard mission for the purpose of extending the French posts on the Congo and its tributaries up the Ubangi and into the Bahr el Ghazal valley so as to secure an outlet on the Nile. In 1898 Great Britain protested against the occupation of any part of the Nile valley by France while negotiations regarding their respective rights were proceeding. When, by the agreement of May 12, 1894, England leased the bank of the upper Nile as far north as Fashoda to the Congo State, France declared the convention of no effect, England not being in effective occupation of these territories, and prevailed upon the King of the Belgians to renounce the intention of occupying the left bank between Lado and Fashoda. In 1896 Capt. Marchand set out with a party of 7 other Frenchmen and 160 trained soldiers from Timbuctu to extend M. Liotard's line of stations down the

Bahr el Ghazal to the Nile at Fashoda. The right bank of the Nile opposite Fashoda, through several degrees of latitude, was claimed by the Negus Menelik as a part of Ethiopia. The Anglo-Egyptian operations for the reconquest of the Soudan, begun in 1896, were intended to forestall the French and prevent these missions advancing secretly from the French Congo, and also French adventurers acting in conjunction with the Abyssinians from getting a foothold in the Nile valley. In 1895 Sir Edward Grey, Undersecretary of Foreign Affairs in Lord Rosebery's Cabinet, declared in the House of Commons that Great Britain would consider the invasion of the Nile valley by another power as an unfriendly act. M. Hanotaux, the French Foreign Minister, in a diplomatic note, traversed this assumption that the abandoned provinces of Egypt were British by pre-emption. In 1897 Lord Salisbury formally reaffirmed the position taken by Sir Edward Grey. In negotiations with respect to the valley of the Niger and the regions north and east of Lake Chad, Sir Edmund Monson, British ambassador at Paris, told M. Hanotaux that in the event of a road being opened up from Lake Chad to the Nile, Great Britain must not be understood to admit that any other European power had any claim to occupy any part of the valley of the Nile, and the French minister, in his reply, demurred to the British position once more and repeated his reservations as to the Nile, to which the British Government had made no reply.

Capt. Marchand established posts in the Bahr el Ghazal region in 1896 and 1897 among the Dinkas, and in 1898 descended to Meshra er Rek, and thence to the left bank of the Nile, making a treaty with the Mek of the Shilluks and raising the French flag over the Government building at Fashoda on July 10, two months previous to Sir Herbert Kitchener's victory over the Khalifa at Omdurman (see Egypt). A detachment of the retreating dervishes attacked him there, on Aug. 25, with a gunboat, and, being repelled, turned back to get re-enforcements, but was broken up by the sirdar as he was ascending the Nile in gunboats to oust any French or Abyssinian forces that might have established themselves on the Nile banks. When the Anglo-Egyptians approached, Capt. Marchand sent a message to the sirdar to inform him that he had occupied, by order of the French Government, the Bahr el Ghazal as far as Meshra er Rek and the confluence of the Bahr el Ghazal with the Bahr el Djebel, as well as the Shilluk country on the left bank of the White Nile as far as Fashoda. At their meeting on Sept. 19 the sirdar informed Capt. Marchand that the presence of the French at Fashoda and in the valley of the Nile was regarded by the British Government as a direct violation of the rights of Egypt and of Great Britain, and asked him if he was prepared to resist the occupation of the Mudirieh. Capt. Marchand replied that he would die at his post before retiring from his position or hauling down his flag without orders from his Government. The Egyptian flag was hoisted on the old fort near by, after Capt. Marchand had said that he could not resist this. Sir Herbert Kitchener then returned north, leaving Jackson Bey as commandant with a battalion of infantry and a gunboat, which was ordered to ascend the Bahr el Ghazal and establish posts in the direction of Meshra er Rek. The Shilluks, who had taken service under Capt. Marchand, went over to the Egyptians, and their Mek repudiated his treaty, saying that he had made it supposing Capt. Marchand to be an officer of the Egyptian Government.

After the dervish rout at Omdurman, M. Delcassé, expecting that the Anglo-Egyptians would find Capt. Marchand on the Nile, deprecated a collision between the forces on the spot and expressed a desire for an amicable settlement of all causes of

difference by means of a frank discussion between the two governments. Capt. Marchand had been instructed to act merely as a herald of civilization and not to assume the decision of questions of right or take any steps likely to produce a local conflict. The Marquis of Salisbury replied that by the military events all the territories which were subject to the Khalifa had passed by right of conquest to the British and Egyptian governments, and that he did not consider this right open to discussion. On Sept. 18 M. Delcassé asked if the British Government considered that Capt. Marchand had no right to be at Fashoda, and when Sir E. Monson reminded him of the warning that any incursion into the upper Nile basin would be considered an unfriendly act, he said that there was no Marchand mission, that M. Liotard had been instructed to secure French interests in the northeast two or three years previous to Sir Edward Grey's declaration, and under his direction Capt. Marchand had gone to occupy the regions recognized as French in the Franco-Congolese convention. If Lord Salisbury's theory of conquest were admitted, Fashoda had been conquered from the Mahdi by the French before the capture of Khartoum by the sirdar. That the Soudan was abandoned by Egypt was admitted by the English when they conquered for themselves Unyoro in the Equatorial Province and sanctioned the occupation of Kassala by the Italians and of Lado by the Belgians. In order to prove that the French position on the upper Nile was not equivalent *de jure* to her own, England would have to show a mandate from the Sultan for the occupation of the Soudan. The British ambassador told M. Delcassé that the situation on the Nile was dangerous and that the British Government would consent to no compromise. The French minister said that if the two governments discussed the matter calmly with a sincere desire to avoid a conflict there could be no doubt that a peaceable and satisfactory solution would be found. After receiving the sirdar's report of the meeting at Fashoda the British Government demanded the instant recall of Capt. Marchand. The French minister, after consulting with his colleagues, said on Sept. 27 that he was ready to continue the discussion in a conciliatory spirit, that he must not be asked for the impossible; the French Government wished to communicate with Major Marchand and receive his report before taking any action. Lord Salisbury said the British Government could not refuse to transmit a dispatch to a French explorer in a difficult position, and laid down as the British view that the region where he was found, whether in times of Egyptian or of dervish dominion, had never been without an owner and that his expedition with an escort of 100 Senegalese troops had no political effect, nor could any political significance be attached to it. M. Delcassé asked if the dervish dominion was placed on the same footing as the Egyptian and if it was vindicated in opposition to French occupation. The British ambassador replied that whatever title the Khalifa possessed had passed to the conqueror, and that an occupation by a secret expedition of a handful of men who would have been destroyed but for the timely arrival of the Egyptian gunboats could give no title. When Sir Edward Monson remarked that in going toward the Nile after the German and Italian recognition of the British sphere of influence, France could not be unaware that she was advancing to a conflict with England, M. Delcassé refused to believe that Lord Salisbury would admit the idea of a conflict over such an incident, and recalled the fact that the French enterprise went back to an epoch when England had done nothing and said nothing indicating an intention to reconquer the Egyptian Soudan, which it had itself obliged

Egypt to abandon in 1884. As the French were the first to reach Fashoda, and had taken it from barbarism, to ask them to evacuate it previous to all discussion would be to formulate an ultimatum, to which France could make only one reply. In a conversation with M. de Courcel, Lord Salisbury said that M. Marchand had established himself surreptitiously in the rear of the Mahdi while the latter was occupied in fighting the Anglo-Egyptian army. The French ambassador could not see how the French could be blamed for taking advantage of the Mahdi's difficulties, still less for co-operating with the English. He spoke of the injustice of France being excluded from the Nile, to which Germany and Belgium were admitted. When Lord Salisbury declined to discuss the substance of the matter in dispute, M. de Courcel said that the evacuation of Fashoda was not an issue, but that this should be preceded by a friendly delimitation, as France was ignorant of the limit of the pretensions of England, either for herself or for Egypt. Lord Salisbury would not reply respecting a delimitation without first consulting his colleagues. M. Delcassé, in a dispatch dated Oct. 8, asked by virtue of what mandate and in what way the title invoked by England could be better than the French, assuming that Egyptian rights over the territories in question had not lapsed, and on Oct. 10 M. de Courcel, while regarding as unusual the claim of Egypt to territories formerly belonging to her in spite of the transformations produced by conquests and evolutions, asked how it was that this claim was not set up against France by an Egyptian minister nor by a representative of the Sultan's sovereignty, but by the Prime Minister of England. Neither treaties concluded with Germany or other third parties nor the unilateral declaration of an English Under secretary of State in the British Parliament sufficed to create for England a right superior to French pretensions. If the English claimed the upper Nile regions as coming in their sphere of influence or in that of Egypt, the French were not less entitled to claim, as belonging to their sphere of influence, territories opening an outlet on the Nile that are the continuation of their possessions in Central Africa. Between these rival pretensions a delimitation had become indispensable. On Oct. 12 M. de Courcel said that if the legitimacy of Egyptian pretensions were acknowledged, it was not proved that the presence of French troops was necessarily a derogation of them or was more incompatible with the authority of the Khedive than the presence of English troops in territories more unquestionably Egyptian. Lord Salisbury replied that a mixed occupation of Egypt would present inconveniences. The ambassador then reminded him that England, when her troops entered the old Equatorial Province of Egypt, raised her own flag, not the Egyptian, adding that the two or three years in which the Bahr el Ghazal province had been under the rule of Egypt afforded a slender basis for an inalienable legitimacy such as had never been set up in respect to territory in Europe. In answer to Salisbury's claim of the right of conquest, he said that the Bahr el Ghazal had been occupied for several years by the French, and that it was not a Mahdist territory when they entered it, for they encountered no dervishes there. Lord Salisbury objected to the French forces on the Bahr el Ghazal as being too feeble for an effective occupation and unable to defend the territory against the claims of Egypt. M. de Courcel replied that they were small bodies of well-trained native troops under French officers, capable of being re-enforced by local levies from friendly tribes, such forces as sufficed to uphold European rule in all parts of Africa

in all normal exigencies, but certainly not sufficient to cope with an army equipped and organized in the European manner. If Lord Salisbury meant that the sirdar's forces could compel Capt. Marchand to withdraw as far as they liked, it would be necessary to quit the ground of diplomacy. Lord Salisbury reasserted the British claim to the whole basin of the Nile, and even this extreme boundary, M. de Courcel said, could not be fixed in the Bahr el Ghazal region without a compromise, for at different seasons the streams run in different directions. Lord Salisbury then asked the French ambassador to make proposals, and the latter claimed for the French territories of the Congo basin the possession of their natural outlet on the Nile, namely, the valley of the Bahr el Ghazal, urging that it was the common interest of both countries not to intercept this natural Central African trade route, the use of which might be guaranteed to trade by special stipulations analogous to those concluded for the Niger territories. The question of Fashoda would disappear if England would agree to a delimitation of the territories between Lake Chad and the Nile, the only task remaining in Africa.

Lord Salisbury would not answer until he had seen his colleagues. The Cabinet council decided to demand the evacuation of Fashoda before entering upon any discussions. The naval preparations of England and the warlike temper of her people convinced the French Government that negotiations had better be postponed until the English were in a calmer mood. When Lord Salisbury demanded, on Nov. 1, the unconditional withdrawal of the French post at Fashoda the new French Cabinet decided to endure the humiliation rather than precipitate a war over such an incident, the position at Fashoda being in any case untenable. Capt. Marchand, who had gone to Cairo, was ordered to return and to withdraw his force through Abyssinian territory to Jibouti.

Colonies.—The colonies of France are represented in the Senate and Chamber. Algeria has an administration and laws independent of the colonies, and is regarded as an outlying portion of France. The other possessions are governed in accordance with laws passed by the Chambers by officials who are responsible to the Cabinet.

The area and population of the French colonies and protectorates, according to the most recent estimates and returns, are given as follow:

POSSESSIONS.	Square miles.	Population.
Algeria	307,974	4,480,000
Tunis	50,840	1,500,000
Senegal, French Soudan, Dahomey, Guinea, and Gabon	444,350	8,150,000
French Congo	496,920	8,950,000
Sahara	1,684,000	2,500,000
Réunion	970	171,720
Comoro Isles	620	53,000
Mayotte	143	8,700
Nossi Bé	113	7,800
St. Marie	64	7,670
Obok and Somali coast	8,840	30,000
Bagirim	65,650	1,000,000
Madagascar	227,750	3,500,000
French India	197	298,910
Cochin China	22,360	2,035,000
Annam	81,000	6,000,000
Tonquin	122,000	12,000,000
Cambodia	46,000	1,500,000
French Guiana	46,850	22,710
Guadeloupe	688	167,100
Martinique	380	187,890
St. Pierre and Miquelon	93	6,250
New Caledonia and dependencies	7,630	51,000
Marquesas Islands	490	4,450
Tahiti and Moorea	455	11,800
Tubuai	80	880
Tuamotu and Gambier	380	5,250
Wallis Archipelago	100	5,000
Total	3,617,327	52,642,930

The special trade of France with the colonies in 1896 amounted to 137,300,000 francs of imports and 105,200,000 francs of exports, not including the trade with Algeria and Tunis, which would bring the total up to 358,800,000 francs of imports and 345,600,000 francs of exports. The commerce of the several colonies for the latest years reported was, in francs, as shown in the following table:

COLONIES.	Imports.	Exports.
Senegal	13,866,000	17,985,000
French Guinea	4,634,000	5,787,000
Ivory Coast	4,638,000	4,400,000
Dahomey	9,729,000	9,100,000
French Congo	3,166,000	2,345,000
Mayotte and Comoro	608,000	972,000
Diego Suarez	6,700,000	680,000
Nossi Bé	2,621,000	2,383,000
Réunion	19,671,000	17,086,000
French India	3,277,000	20,129,000
Cochin China and Cambodia	41,636,000	88,826,000
Annam	151,000	2,549,000
Tonquin	358,000	13,311,000
St. Pierre and Miquelon	7,091,000	9,401,000
Martinique	19,726,000	21,431,000
Guadeloupe	7,108,000	18,798,000
French Guiana	4,387,000	4,784,000
New Caledonia	2,411,000	5,749,000
Oceanica	149,000	3,068,000

The expenditure of France on the colonies in 1898 was 88,030,868, exclusive of Algeria, and the amount received from the colonies, including Cochin China's contribution of 4,510,000 francs, was 9,296,914 francs. The military and naval expenditure for the colonies makes the annual cost to the mother country much greater.

Algeria has at the head of the administration a civil governor-general, who receives instructions from the various ministries. M. Lépine was appointed to this office on Oct. 2, 1897. The population of the civil territory in 1896 was 3,873,278 and of the military districts 556,143; total, 4,429,421, not including about 50,000 nomads of the Algerian Sahara. The population included 318,137 Frenchmen and 446,343 foreigners. The revenue for 1898 was estimated at 52,037,152 francs, of which 11,915,507 francs come from direct taxes, 7,763,800 francs from registration and stamps, 11,999,000 francs from customs, 5,435,120 francs from monopolies, 3,253,100 francs from domains and forests, and 7,972,320 francs from various sources, while 3,698,305 francs are *recettes d'ordre*. The total expenditures are set down as 71,147,857 francs, of which 502,250 francs are for finance, 3,583,920 francs for justice and worship, 28,539,794 francs for the interior, 5,060,583 francs for instruction, 22,041,000 francs for public works, 15,379,510 francs for *régie*, and 1,040,800 francs for repayments. The special troops recruited and trained for the defense of Algeria from the Nineteenth Army Corps, which is composed of 2 foreign legions, 3 regiments of zouaves, 3 regiments of *tirailleurs*, 3 battalions of light infantry, 3 discipline companies, 5 regiments of *chasseurs d'Afrique*, 3 regiments of spahis, 3 companies of remount cavalry, 12 batteries of field artillery, 3 companies of engineers, 9 companies of train, a recruiting section, and the staff, numbering in all 2,917 officers and 53,714 men.

Of the total population 3,482,358 were engaged in agriculture in 1895, including 205,642 Europeans. The yield of hard wheat in 1896 was 5,828,857 quintals; of soft wheat, 1,242,114; of barley, 8,412,263; of wine, 4,350,120 hectolitres; of alfalfa, 385,484 quintals; of cork, 22,073; of tobacco, 5,720,360 kilogrammes. Olives, dates, flax, colza, and ramie are also produced. The mines in 1895 produced 94,200 tons of iron ore and 14,143 tons of zinc and lead ore. The quantity of phosphate taken out was 156,857 tons. The total value of the general imports in 1896 was 275,798,959 francs, of which 217,-

801,956 francs were imports from France and 57,997,003 francs from other countries. Total value of exports 247,409,742 francs, 203,779,618 francs to France and 43,630,129 francs to other countries. The principal special imports were animals for 8,386,891 francs, animal products for 2,352,223 francs, colonial products for 7,759,478 francs, timber for 4,458,250 francs, and textile fabrics for 1,696,233 francs.

The special commerce for 1896 was divided among different countries, as shown in the following table, values being given in francs:

COUNTRIES.	Imports.	Exports.
France	217,801,366	196,841,646
Great Britain	5,271,121	11,812,023
Brazil	9,853,444	.....
Tunis	5,262,994	2,779,983
Spain	4,870,440	2,305,680
United States	4,500,795	966,218
Morocco	6,551,988	100,037
Italy	2,349,364	2,369,087
Belgium	559,479	3,066,144
Russia	2,033,565	1,561,009
Germany	1,134,344	1,713,316
Austria-Hungary	1,932,307	637,099
Other countries	7,114,721	6,932,536
Total	269,237,968	231,074,677

The number of vessels entered from French and foreign ports in 1896 was 1,654, of 895,618 tons, of which 338, of 101,089 tons, were French; cleared, 1,641, of 878,212 tons. Of coasting vessels, 7,836, of 1,378,950 tons, were entered. The merchant marine belonging to Algeria on Jan. 1, 1897, comprised 644 sailing vessels, of 6,764 tons, and 60 steamers, of 7,202 tons. The length of railroads in operation in 1897 was 2,156 miles. The telegraph lines had a length of 5,025 miles, with 10,671 miles of wire. The number of dispatches in 1895 was 1,574,948, of which 1,473,402 were internal, 50,022 foreign, and 71,524 official.

Tunis was declared a French protectorate by the treaty of Kasr-es-Said, concluded on May 12, 1881. The French Minister Resident superseded the authority of the Bey, and French judges took the place of the consular courts in 1884. The army of occupation, numbering 13,458 officers and men in 1898, is maintained at the cost of the republic. The present Bey, Sidi Ali, born Oct. 5, 1817, succeeded to the throne on Oct. 28, 1882. The Resident General is R. P. Millet. Including the military, there were 26,678 French in 1896. The imports in 1896 were 46,444,548 francs in total value, and the exports 34,507,532 francs. Of the imports 25,563,000 francs were from France, 5,284,000 francs from Italy, 3,832,000 francs from Great Britain, 2,483,000 francs from Malta, and 2,012,000 francs from Russia. The chief exports were wheat for about 9,000,000 francs; olive oil, 4,000,000 francs; barley, 3,000,000 francs; cattle, 2,000,000 francs; wine, 1,500,000 francs; alfalfa, 1,500,000 francs; sponges, 1,200,000 francs. During 1896 there were entered at Tunisian ports 8,389 vessels, of 1,805,814 tons, of which 1,237, of 846,718 tons, were French; 2,215, of 712,700 tons, Italian; and 115, of 113,374 tons, British. The commercial marine numbered 403 vessels. The length of railroads in operation was 883 miles, all belonging to the Government except 17 miles. The telegraph lines had a length of 2,060 miles, with 3,670 miles of wire. The number of internal letters sent through the post office in 1895 was 2,899,692; of foreign letters, 8,099,208.

The French empire in India was reduced after the Napoleonic wars to the port of Pondichery and four other towns with the surrounding districts, covering an aggregate area of 200 square miles, and having a total population on Jan. 1, 1896, of 286,913. The expenditure of France in 1898 was 322,-

629 rupees. The debt amounts to 10,754,300 francs. The chief exports is oil seeds. There were 428 vessels, of 562,000 tons, entered and 432, of 560,868 tons, cleared in 1895. The post office carried 672,698 letters.

French Indo-China comprises Cochin China, Tonquin, Annam, and Cambodia. The imports of Annam in 1896 were 3,860,682 francs in value, and exports 2,398,610 francs. Sugar and cinnamon are the chief articles exported. There are 23,370 troops to preserve order in Annam and Tonquin, of whom 14,500 are natives. Tonquin now includes a tract of 110,000 square miles on the east side of the Mekong that was formerly claimed by Siam, but was conceded to France in 1893. The chief product is rice, which is largely exported to Hong-Kong and China. The total imports for 1896 were valued at 25,204,013 francs, and exports at 7,560,898 francs, not including a transit trade with Yunnan amounting to about 5,000,000 francs of imports and 3,200,000 francs of exports. The railroad from Phulang to Langson, 64 miles, is to be extended to Nacham, on the Chinese frontier. The local revenue and expenditure of Annam and Tonquin in 1897 was 7,982,000 Mexican dollars. France's expenditure in 1898 was 24,450,000 francs.

The budget of Cambodia for 1897 was 2,025,000 Mexican dollars. The population includes, besides the various native races, 250,000 Chinese and Annamese and 40,000 Malays. The exports are rice, cotton and cotton seed, betel, tobacco, pepper, indigo, and cinnamon. The value of the imports in 1896 was \$4,000,000 and of exports \$10,000,000.

Cochin China is an organized French colony. The population, numbering 2,084,453 in 1897, contains, besides Annamese, Chinese, Malays, and Malabar natives. There was a net immigration of 3,687 Asiatics in 1894. The French population is 4,335. The military force consisted in 1897 of 1,217 French troops and 2,400 Annamese soldiers. The rice crop was 8,281,300 piculs in 1896. This is exported to China, Java, and Europe. Other exports are cotton, silk, hides, fish, pepper, and copra. Imports were valued at 55,828,250 francs in 1896, and exports at 91,117,500 francs. There is a railroad from Saigon to Mytho, 51 miles. The telegraphs have a length of 1,905 miles, with 3,077 miles of wire. The number of dispatches in 1896 was 321,536. The local revenue and expenditure in 1897 were \$12,420,000; expenditure of France, 3,150,000 francs.

French Guiana is a penal settlement with a convict population of 4,500. The border territory in which gold has been discovered was disputed with Brazil, and in April, 1897, a convention was signed agreeing to leave it to arbitration. The export of gold in 1896 was 101,938 ounces. The local revenue and expenditure in 1897 was 2,770,000 francs. The expenditure of France in 1898 was 6,161,000 francs, including 4,732,000 francs for the penal establishment.

St. Pierre and Miquelon and adjacent islands off the south coast of Newfoundland are stations for the French cod-fishing fleet. The local budget for 1897 was 463,000 francs; the expenditure of France in 1898 was 302,500 francs.

The penal colony of New Caledonia had imports in 1896 amounting to 9,198,545 francs, and exports to 5,748,552 francs, of which 3,500,000 francs represent nickel and chrome ores. There were 120 vessels, of 132,829 tons, entered and 154, of 175,993 tons, cleared at the port of Noumea. The local budget for 1897 was 2,569,000 francs; the expenditure of France for 1898 was 7,833,000 francs, including 4,716,000 francs for the penal establishment.

The Loyalty and Wallis groups, the Isle of Pines, and some smaller islands are dependencies of New

Caledonia. The French establishments in Oceania comprise the Society Islands, of which the chief ones are Tahiti, Moorea, the Tetearoa group, and Meeticia, the islands of Raiatea, Tubuai-Manu, Huahine, Bora-Bora, and others in the northwest, and the Marquesas, Tuamotu, Gambier, and Tubuai groups and Rapa island, all under one governor. The total imports in 1896 were valued at 2,923,957 francs, and exports at 3,269,888 francs. The leading exports were mother-of-pearl for 1,464,265 francs, copra for 855,590 francs, vanilla for 405,425 francs, and cotton for 205,737 francs. Breadstuffs, provisions, canned goods, and calico are imported from the United States and Europe. The local budget for 1897 was 1,110,000 francs; the expenditure of France in 1898 was 856,000 francs. (See MADAGASCAR, WEST AFRICA, WEST INDIES.)

FREE BAPTIST CHURCH. The following is a summary of the statistics of this body as they are given in the "Free Baptist Yearbook and Register" for 1899: Number of quarterly meetings, 190; of churches, 1,507; of ordained missions, 1,843; of licensed preachers, 240; of members, 87,620; value of church property, \$2,854,651; amount of benevolent contributions—for foreign missions, \$14,275; for home missions, \$7,890; for the Educational Society, \$4,057; for the Woman's Mission Society, \$7,781. Tables, very incomplete in detail, are given of 21 other bodies—associations and quarterly meetings—not connected with the General Conference, which include 367 churches, 333 ministers, and 16,471 members, with church property valued at \$10,890. These bodies are in the States of Alabama, Arkansas, Georgia, Mississippi, Missouri, North Carolina, Tennessee, Virginia, and the Indian Territory. The mission churches in India (included in the above total enumeration) return 6 principal stations, 27 American missionaries, 5 of whom are now in the United States, 233 native helpers, 791 members, with 32 additions by baptism during the year, 3,303 pupils in Sunday schools, 209 Christian Endeavorers, a native Christian community of 1,704 persons, 87 Christian and 67 non-Christian teachers, and 2,981 pupils in all, in the schools, of whom 533 are Christians, 1,286 Hindu, 82 Mohammedan, and 1,034 Santal pupils. The total contributions of the mission churches and Sunday schools were 1,961 rupees, or about \$654.

The Nova Scotia Free Baptist Conference returns 41 churches, 3,836 members, with 91 additions during the year; 39 Sunday schools, with 232 teachers and 2,509 pupils, contributing \$470; and contributions of \$8,200 for local work, \$500 for foreign missions, and \$400 for other purposes. It has one foreign missionary, in India.

The triennial General Conference met at Ocean Park (Old Orchard Beach), Me., Aug. 25. The Rev. Dr. R. D. Lord, of Brooklyn, N. Y., presided. The report of the committee on the ministry, as adopted, declared, in substance, that persons having gifts and qualifications for prayer and personal Christian work ought to be recognized by the local churches without ordination; that married persons not living in married union should not be ordained unless for reasons satisfactory to a council; that the course of studies required by the General Conference, or its equivalent, should be the minimum of acquirements for ordination; that ministers should report their work to the State organizations for approval; that ministers coming from other denominations should be as carefully and thoroughly examined as those proposing to enter the ministry from the Freewill Baptist denomination; and that those ordained should be sound in doctrine and of good report. The report on foreign missions expressed regret that a diminution had taken place in the missionary force in India; recommended

that the work be largely done there by native helpers; advised sending additional missionaries; commended the interest manifested by the young people in foreign missions and desired its extension; approved the action of the General Conference Board in making apportionments to churches; recommended the institution of a mission committee for each church, and the use of the card system; urged that quarterly meetings, associations, yearly meetings, and State associations devote some time for presenting the missionary cause; and advised measures to interest the children in missions. The establishment of missions in Africa and in the West Indies was authorized if the Conference Board should decide upon them. The report on church polity recommended consultation with some committee or board in the selection of men for positions as a step toward getting "the right man into the right place"; presented it as the duty of churches and members of churches reverently to respect the accepted methods of service, and to conduct Sunday schools, Young People's Societies, missionary societies, and other societies doing church work, under the auspices of the church, and to enter the records of their transactions upon the records of their respective churches. A report on doctrine set forth that truth does not change, but men's conception of it does; that it is the duty of Free Baptists to welcome new conceptions of truth, but that there is no call for change in the Confession of Faith. A report on home missions recommended that \$10,000 a year be raised for three years for the home-mission work of the denomination, and that the sum be apportioned among the churches *pro rata* upon resident members, and approved a system of institutes for the benefit of the ministers in the Cairo mission. The publication of a quarterly review was approved. Delegates were appointed to the "Anti-Saloon Convention," to be held in Cleveland, Ohio. A resolution was passed in favor of proper respect for the Lord's Day and observance of it.

FREE CHURCHES, EVANGELICAL, FEDERATION OF. The National Council of the Federation of Evangelical Free Churches of England met at Bristol, March 8. Nearly 500 local councils were represented by between 600 and 700 delegates, and the fact is noted that the members, instead of attending on their personal responsibility, as had been largely the case heretofore, were for the most part elected representatives. The Rev. Dr. John Clifford presided, and made the opening address, the subject of which was the solution of the problem of church unity through federation. Unity, he said, was to be found in the one Spirit of Christ, and he believed, with a strong majority of churchmen, that this demonstration of unity in Christ was coming; in fact, "it was here in this National Council of Free Evangelical Churches." The union was not nominal and technical—a mere junction of reluctant persons—but a genuine fellowship as of hearts that could no longer keep apart. Figures were quoted in the address citing representations which had been made in the "Contemporary Review" to the effect that the free evangelical churches of England and Wales provide more seats and have more communicants, Sunday-school teachers, and pupils in Sunday schools than the Established Church, and tables were quoted from the "Free Church Handbook" for 1898 showing that similar proportions prevail among the English-speaking people as a whole, including those of the British Isles, the United States, the colonies, and the missions. In all these countries the Anglicans have, according to the "Church of England Yearbook" for 1897, 3,122,526 and the free evangelical churches (Methodists, Baptists, Presbyterians, and Congregationalists), ac-

cording to official reports and estimates, 16,025,152. Adding to these a number of American religious bodies not exactly corresponding to any in England, statistics of which are given in the tables of the "Independent," New York, the whole number would be brought up to 20,500,000. As between the Established Churches in the British Empire and the English-speaking non-established churches, the numbers are 2,573,925 communicants in Established Churches, and 21,043,534 in non-established churches. The Rev. Dr. Charles A. Berry gave an account of his visit to the United States where he had been seeking by conference and addresses to promote the movement for federation. The federation report showed that 106 councils had been formed during the year, bringing the whole number up to 490. A process of consolidation had been carried on in the formation of district federations, of which 20 were named as already in existence. A series of united missions had been carried on in which half the local councils had taken part. Excellent spiritual results had followed these missions, and they had also been a means of bringing the leaders and workers of the different churches where they had been held into closer and living association. The preparation of parish maps with reference to regular house-to-house visitation had been encouraged by an offer of £5 to each council of more than fifteen churches which should undertake it for its own district. Twenty-six councils had prepared, or were preparing such maps. In the matter of a circulating library, 202 boxes of books had been sent to councils, each box containing about 50 volumes. The subjects of "Town Organization," "County Federation," "Slavery in Africa," "Secondary Education," and the relation of the free churches and the press were discussed. Alarm was expressed at the failure of her Majesty's servants to repress the systems of servitude which had arisen in Pemba and Zanzibar and in South Africa. In a resolution opposing the proposed establishment of a Roman Catholic University in Ireland, the council, "believing that the policy which has prevailed in the United Kingdom for many years of founding new universities on a national rather than on a sectarian basis, and freeing the older universities from denominational control, is a sound policy, favorable to social peace and good will, as well as essential to the highest educational efficiency," declared that it condemned, "as retrograde and dangerous the proposal to institute by authority either of the Crown or of Parliament and sustain by public money a Roman Catholic University in Ireland, as it would similarly condemn the proposal to institute a denominational university in England or Scotland," and instructed its committee vigorously to oppose any measure that might be brought before Parliament for the foundation of such a university.

FRIENDS. The Orthodox American Friends return for 1898 1,272 ministers, 830 churches, and 92,073 members. The other three bodies in America have, by the latest returns, no special enumeration for 1898 being given: The "Hicksites," 115 ministers, 201 churches, and 21,992 members; the "Wilburites," 88 ministers, 53 churches, and 4,329 members; and the Primitive Friends, 11 churches, 9 ministers, and 232 members, making for the whole society in America 1,436 ministers, 1,093 churches, and 118,626 members. These numbers show an increase during the year of 1,152 members in the Orthodox branch, while the number of ministers is 26 less, and that of churches shows no change. The Friends have seven institutions devoted to collegiate instruction, one new one, Friends' University, at Wichita, Kan., having been opened during the year by the Kansas Yearly Meeting. It occupies the building and property of the former Gar-

field University of the Disciples of Christ, which were purchased by James A. Davis, of St. Louis, Mo., and presented to the society. An enumeration of the large gifts that have been made to Friends' institutions in the United States begins with the donation of 45 acres of land and \$15,000 in money by Moses Brown, of Providence, R. I., early in the century, for the foundation of a Friends' school in the New England Yearly Meeting. This was followed by a gift from Mr. Brown's son, in 1827, of \$100,000 to the same institution for Friends' scholarships. Haverford College has received numerous gifts of from \$25,000 to \$30,000 from each donor, and the estate of Jacob P. Jones, who left the bulk of his property to this institution, is expected to add about \$1,000,000 more to its funds. Bryn Mawr College for women was founded by Dr. Joseph W. Taylor, who bought the land and began the construction of a building, when he died, leaving a residuary estate, which is valued at \$850,000, to the college. The last gift mentioned is that of Mr. Davis, of the property at Wichita. The foreign missionary work of American Friends is carried on in six countries outside of the United States, and in Alaska and among the American Indians. New England Friends have completed a building for a girls' training school near Jerusalem. A committee appointed in 1897 is engaged in preparing a uniform discipline for the thirteen Orthodox American yearly meetings that correspond with one another.

A large conference of "Hicksite" Friends was held at Richmond, Ind., at which important questions concerning the principles and work of that branch of the society were considered.

The returns of the whole society for 1898 show that at the close of 1897 the number of Friends registered throughout the world was 113,877, compared with 112,413—a gain of 1,464, or about 1.30 per cent. The chief gain (1,301) is in the United States, where the membership is given as 93,699. The whole number of Friends in Great Britain and its colonies and on the Continent of Europe is 20,178, a net gain for the year of 163. There are 14 yearly meetings of Friends on the American continent, 2 in Great Britain and Ireland, 5 on the Continent of Europe, and 6 in Australasia, with mission stations in every quarter of the globe. The whole number of "recognized ministers of the Gos-

pel" is 1,648. The foreign-mission stations return 1,860 native members, with 104 Bible schools, having an aggregate attendance of 5,102.

The London Yearly Meeting met May 16, beginning with the session of the meeting on Ministry and Oversight. The reports from the provincial meetings embodied many references to the importance of Bible study and of the efforts that have been made in different towns to promote it. The subject has been made more prominent than heretofore in the life of the society by the institution of a "summer school" at Scarborough, which has been largely attended, where addresses and lectures on subjects relating to religion, research, and scholarships have been delivered by eminent men both of the Society of Friends and of other denominations. A committee had been formed at the close of the summer school in August, 1897, for organizing this work by arranging courses of lectures and helping in the formation of local circles. It appeared at the meeting of this committee held during the session of the yearly meeting that seventeen courses of lectures on Bible study had been given in different centers. In the course of the discussion of the epistles from the American yearly meetings the question of correspondence with the branch of American Friends known as "Hicksite" was again raised. The London Meeting has hesitated to recognize these Friends in its correspondence, because the holding of communication with other bodies was supposed to imply a recognition of their orthodoxy, and the Hicksites were regarded as holding Unitarian doctrines. It was maintained, on the other hand, in the discussions at the present meeting that the Hicksites had adhered to the principles of conservative Quakerism, from which several of the bodies to whom epistles were addressed had departed to a greater or less extent. A proposition was made that a simple letter be sent to all who call themselves "Friends" in America stating the position of the London Meeting, but not in a controversial spirit. It was generally thought that the time had not yet come for opening correspondence with the Hicksite body, and the sense of the meeting was recorded as against the proposal. Among matters of missionary work, the attention of the meeting was given to the concerns of the industrial mission which had been established by Friends on the island of Pemba, for the instruction of freed slaves.

G

GAS, NATURAL. It has been known for centuries that gas or inflammable vapors issued from the earth in various localities. If these vapors became ignited, they continued to burn indefinitely, and the fires thus maintained were often regarded by superstitious persons with religious awe. Perhaps the first attempt to utilize the heat produced by these fires was made by the Chinese, who are said to use it for evaporating water from brine in order to procure salt. From the fact that a gas similar in properties and composition to natural gas is produced from decaying leaves, sticks, and other organic matter in the bottom of ponds, it has been held by some that all natural gas is produced from similar materials in a similar manner, and this explanation has been accepted by the majority of scientific men. Since the discovery of the method of producing calcium carbide in quantity and the method of generating acetylene by the action of water upon the carbide some have been inclined to think that natural gas may have been produced in a similar manner, namely, by the action of water on

metallic carbides in the interior of the earth. Those who accept this latter theory hold that the metallic carbides exist in the interior of the earth in vast quantities, and that water, finding its way downward, comes in contact with these carbides and generates natural gas and crude oil, which are prevented from rising to the surface of the earth by superimposed layers of rock. Both these theories have able advocates among scientific observers.

Natural gas has issued from the earth in southeastern Europe and southwestern Asia for centuries; but, as before stated, little if any effort has been made to utilize it or to increase the supply by drilling or other artificial methods. One of the first attempts to utilize it in the United States was made at Fredonia, N. Y., where it was used for illuminating when Lafayette visited this country in 1824. No serious attempt was made to procure natural gas by drilling until some years after the opening of the great petroleum fields of western Pennsylvania in 1859. During the excitement that followed the development of the petroleum deposits many

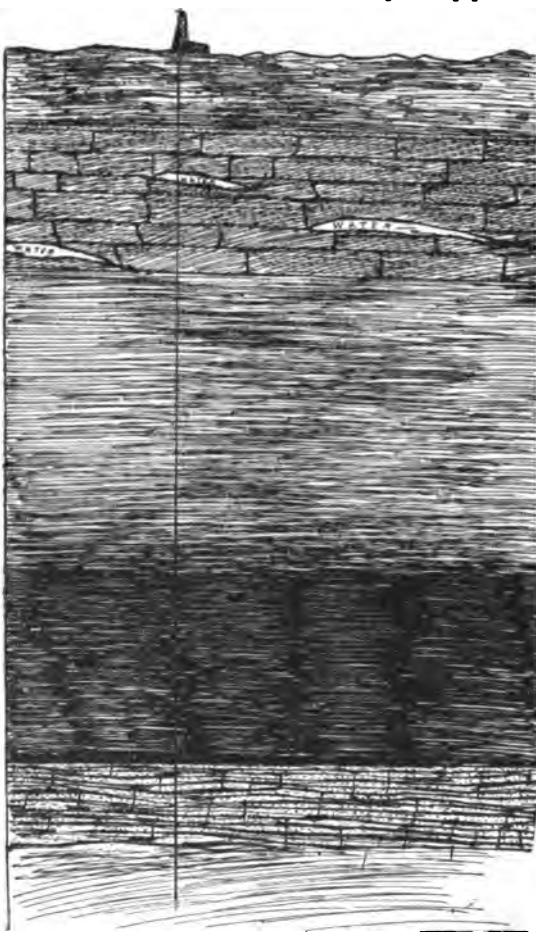
gas wells were drilled in searching for oil. The value of the gas was not at first realized, and vast quantities were permitted to waste by blowing out into the atmosphere. But gradually it was learned that it possessed high economic value as a heating agent, and, after some difficulty, crude appliances were devised for utilizing it. Natural gas was found in Ohio at Findlay in 1885 and was utilized to a considerable extent within a year after its discovery, owing to the fact that means of handling and controlling it could be obtained readily. Vast quantities were wasted, however, by allowing many of the wells to burn uselessly in the air. It has been estimated from reliable data that millions of dollars' worth of gas were wasted in this manner from the Findlay fields alone, saying nothing of the waste at other points in Ohio.

The Ohio and Indiana fields are practically the same so far as geological formations are concerned, but differ from each other in rock pressure, which fact shows them to be distinct as to rock reservoir. The general surface of the earth in Ohio and Indiana under which the gas is found is nearly level or gently undulating. In most portions of the Western gas fields the rock is covered with soil, though in some instances it comes directly to the surface. In most instances the accompanying engraving will represent fairly well the formations passed through by the drill.

The gas is found in the Trenton limestone. The soil above the Niagara limestone is usually soft loam or clay, though immediately between it and the Niagara limestone there is commonly a layer of sand or gravel. The Niagara formation is a hard grayish or yellowish limestone, which is traversed by numerous horizontal seams containing water. The Hudson river shale, immediately beneath it, is soft and compact in texture and contains no water. The line of demarcation between these strata is not distinct, but the lower portion of the limestone becomes more and more shaly, until it finally merges into the Hudson shale. Beneath the Hudson shale is the Utica or black shale, but the line of demarcation between it and the overlying Hudson is not usually distinct. When Trenton limestone is reached the line of demarcation is perfectly clear and well defined. The Trenton limestone is so much harder than the overlying shale that it is frequently possible to hear the first strokes of the drill after it reaches the Trenton. The hard, ringing blows of the drill on this formation are easily distinguished from the dull thud produced by the strokes in the shale. The upper surface of the Trenton is hard and compact and usually of a dark cinnamon-brown color. About a foot beneath its surface (in good territory) it becomes porous and lighter of color, though it still remains hard. In this porous portion the gas or oil is found. The porous or gas-bearing Trenton usually extends from 10 to 20 feet in depth, but in some instances as much as 60 feet.

When it is desired to drill a gas well, a derrick about 74 feet in height is erected, and to one side of it, at its base, is attached a large windlass, around which is coiled a rope a little more than 2 inches in diameter and from 1,000 to 2,000 feet long. This rope extends to the top of the derrick, where it passes over a pulley and thence downward to the center of the derrick, where it is attached to the drill stem, which is a heavy cylindrical steel bar about 4 inches in diameter and sometimes nearly 30 feet long. To the lower end of the drill stem is screwed the "bit," which is made of tool steel and is widened at its lower end

to the diameter desired for the well. The drill stem is given an up-and-down motion by attaching the rope to one end of a horizontal walking beam, which is set in motion by a steam engine some distance from the derrick. The first portion of the well is usually about 9 inches in diameter, so that it will readily admit an 8-inch pipe, which is introduced as soon as the Niagara limestone is reached. This pipe keeps the well free from sand and gravel and prevents caving. Its lower end enters the Niagara limestone a few inches. A smaller bit is now attached to the drill stem, which drills the well of such size that a 5½-inch pipe will



GEOLOGICAL SECTION SHOWING LOCATION OF THE GAS SUPPLY.

readily enter. As soon as the Hudson shale is reached and the driller feels sure that all water is passed, the 5½ pipe or "casing" is introduced. This pipe shuts all water out of the well, and another bit is attached to the drill stem, which will readily pass through the interior of the casing. The drilling now proceeds until Trenton limestone is reached, the drillings being removed from time to time by means of a "bailer."

Soon after the drill reaches the Trenton rock the gas begins to flow, and if the well proves to be large the flow increases until the roar of the escaping gas through the casing can be heard a long distance. As soon as the well is completed it is ready for the "packer." This is a hollow cylinder of rubber which nearly fits the well and is usually set just above the surface of the Trenton limestone.

Attached to the lower end of the cylinder is an open cage which permits the gas to pass through the interior of the rubber. Immediately above and immediately below the rubber is a cap of metal. Into the upper cap is screwed the pipe (usually two or three inches), which conveys the gas from the bottom to the top of the well. As soon as the pipe below the packer reaches the bottom of the well the weight of the pipe above bears down upon the upper cap, thus squeezing the rubber firmly outward against the wall of the well. This compels the gas to ascend through the central pipe, which is fitted with a valve at its upper extremity by means of which the gas may be controlled.

Wrought-iron or steel pipe is screwed into the valve, through which the gas may be conveyed to the point of consumption. If the gate valve is closed the pressure increases in the well to about 200 pounds in the Indiana field.

If the gas is to be used for city supply, it is piped to the limits of the city, and there the pressure is controlled by valves which work automatically and for domestic use reduce the pressure to a few ounces. Just before entering the stove the gas passes through an appliance called a "mixer," by means of which it is mingled with about ten times its volume of air, after which it burns with a blue flame, giving great heat and no smoke. It requires about 20,000 cubic feet of natural gas to equal a ton of soft coal in heating power, and about 30,000 cubic feet to equal a ton of anthracite coal. If desired, the gas may be used in connection with a thermostat, which will so regulate the supply for a heating stove that the room warmed by it will remain at the same temperature from one month's end to another. The writer has used one of these devices of his own invention for several years with the most gratifying results.

In the gas belt, the gas is also used exclusively for cooking, for which purpose it is admirably adapted. The price of gas per stove varies from \$1.50 to \$3 a month in the gas district, according to the expense of piping. Vast quantities of gas are used for manufacturing operations throughout the gas regions. Perhaps the most common establishment is the glass factory. These plants are quite numerous, as no other fuel is so well adapted to their operation as natural gas, and thus far no substitute can be furnished so cheaply. The gas is also used for firing steam boilers and for running gas engines, which latter give great power for the amount of gas consumed.

The composition of the gas is as follows: Carbon, 70.25; hydrogen, 21.45; sulphuretted hydrogen, 0.17; carbonic acid, 0.02; nitrogen (by difference), 8.11.

The natural gas consumed daily in the Indiana field alone may be roughly estimated at 200,000,000 cubic feet, which is equivalent in heating power to about 10,000 tons of soft coal. This would be equivalent to a consumption of 3,650,000 tons of coal a year.

GEORGIA, a Southern State, one of the original thirteen, ratified the Constitution Jan. 2, 1788; area, 59,475 square miles. The population, according to each decennial census, was 82,548 in 1790; 162,686 in 1800; 252,433 in 1810; 340,985 in 1820; 516,823 in 1830; 691,392 in 1840; 906,185 in 1850; 1,057,286 in 1860; 1,184,109 in 1870; 1,542,180 in 1880; and 1,937,253 in 1890. Capital, Atlanta.

Government.—The following were the State officers during the year: Governor, William Y. Atkinson, succeeded, Oct. 29, by Allen D. Candler; Secretary of State, Allen D. Candler, succeeded by Philip Cook; Treasurer, W. J. Speer; Comptroller, William A. Wright; Attorney-General, Joseph M. Terrell; Adjutant General, J. M. Kell; State School

Commissioner, G. R. Glenn; Commissioner of Agriculture, Robert T. Nesbitt, succeeded by O. B. Stevens; Commissioner of Pensions, Richard Johnson; State Librarian, John Milledge; State Geologist, W. S. Yeates—all Democrats; Chief Justice of the Supreme Court, Thomas J. Simmons; Associate Justices, Samuel Lumpkin, H. T. Lewis, A. J. Cobb, W. A. Little, and W. H. Fish—all Democrats.

Finances.—The taxable valuation of the State in 1896 was \$418,307,369, and in 1897 it was \$412,321,369. The valuation of railroads for purposes of taxation was \$42,286,457. The State tax on the

roads that are taxed on property was \$220,312.44, and the county taxes \$226,419.85. Four roads that are operated on old charters, which provide for taxes on their income, paid \$3,347.41 to the State, nothing to the counties.

Education.—The school population in 1893 was 604,971. The school money was distributed on this basis in 1897, though several counties reported an enrollment larger than the whole school population in 1893. The amount distributed was \$1,163,359.23. The teachers number more than 8,000. The State Commissioner says: "We have built more and better schoolhouses. We are tearing down the old plank shacks and the uncomfortable log huts, and we are erecting in their places cozy, modern school buildings, furnished with comfortable seats and modern appliances. Another significant movement is the centralizing of the schoolhouses and the changing of residences to a closer proximity to the schoolhouses. In both the town and country the sentiment is growing in favor of the same educational facilities for the country as we have provided for the towns and cities."

The Legislature appropriated \$10,000 to the State School of Technology, for adding a textile department on condition that an equal sum should be raised by subscription. This was done, and the City Council of Atlanta added \$3,000. Other gifts of money and machinery raised the total to more than \$33,000. It is expected that students will be received in February. The textile school will be a model mill.

Prisons.—The number of convicts in the Penitentiary, by the last report at hand, was 2,235, of whom 58 were women and 169 were boys. The number unable to work was 345.

Atlanta has been selected as the site for a new Federal prison.

Railroads.—From a report on railroad building during the first six months of the year, it is learned that the mileage in Georgia was increased by 62. In 1897 the increase was 119 miles. A road is in process of construction through the pine lands of the southwestern counties.

Products.—The report of the cotton consumption in 1897-'98 credits Georgia mills with 258,617 bales, an increase of 31,900. The annual product of the cotton fields is about 1,200,000 bales.

That Georgia is no longer a practically all-cotton State, as it was for some years after the war, is shown by statistics of other crops in recent years.



ALLEN D. CANDLER,
GOVERNOR OF GEORGIA.

Various methods have been used to encourage general farming by proving to landowners the adaptedness of the soil to the cultivation of grains and hay and the facility for cattle raising. The Georgia Southern and Florida Railroad has offered 6 prizes of \$25 each for the best acres of corn, wheat, oats, tobacco, strawberries, and garden truck; and at Albany an annual hay festival, inaugurated two years ago by the Hon. H. M. McIntosh, has for its object the increase of acreage devoted to that crop. Premiums are given by the Albany Board of Trade for the best crop on a five-acre plot, and for the second and third best, for the best ton of native hay exhibited, the best crop of peavine hay, and the best and second best hay floats.

The State at Omaha.—From an account by ex-Gov. Northen, chairman of the commission for making a display of the products of the State at the Trans-Mississippi and International Exposition, the following extracts are taken:

"It is of course known that under our Constitution the State could not appropriate money to make the necessary arrangements for suitable advertisement of our resources at Omaha. The commission therefore made direct appeal to the people and realized, in cash contributions, \$7,700. Of this amount \$3,150 were contracted to be paid for a State building, and \$450 were paid for the ground space for its erection. Georgia was the only Southern State represented by a State building, and the only State of all the States that installed its exhibit in its own building.

"For each of seven separate entries we received seven separate gold medals, as follows: First, State exhibit; second, fruits; third, building stones; fourth, aluminum ore and manufactured products; fifth, ornamental timbers; sixth, cotton seed and its products; seventh, the best small farm, by John A. Mangett, of Marietta. We were awarded two silver medals, as follow: First, mica, graphite, and asbestos; second, grains, grasses, and cotton. We were awarded seven bronze medals, as follow: First, for gold ores; second, for clays; third, for iron and manganese; fourth, for timber specimens; fifth, for cheese; sixth, for Indian corn; seventh, for sugar cane and sirup."

Immigration.—In June 51,000 acres in the southeastern part of the State were bought by the Shaker Society, of Union Village, Ohio, for the location of a colony. Other large sales of lands for colonies have been reported—one of 5,000 acres near Baxley, on which it is designed to plant a colony of farmers from the northwest, and one of 12,000 acres near Jessup for a colony of Dunkards from Ohio, Minnesota, and other States. Both these tracts are in southeastern Georgia. A site for a colony of Mennonites has been selected at Lithia Springs, De Kalb County, about 18 miles from Atlanta.

Damage by Storm.—A storm swept over southwestern Georgia about Oct. 2. There was little damage at Savannah, but the losses in Brunswick were heavy, and the cotton and rice crop suffered severely. Many persons were rescued by boats from second-story windows in Brunswick, and the livery stables were flooded so that it was necessary to quarter some of the horses in the Baptist church. On the wharves there was great destruction of property, naval stores in quantities being swept away.

The loss of life there was remarkably small, the only deaths reported being four negroes, two of them children; but the loss of life on the sea islands was believed to be large.

Mob Violence.—A negro was lynched near Griffin, Aug. 8, and one near Quitman, Aug. 21, both for attempted assaults on white women. Another negro, charged with murder, was put to death by a

mob of people of Fredonia and West Point, Oct. 23, according to an Associated Press dispatch. At Augusta, Nov. 22, a mob made an attack upon the jail to take a negro held for attempted assault. The jailer resisted, and in the fight that followed a volunteer soldier who was at home on furlough was shot and mortally wounded. The attempt at lynching was then abandoned, and the negro was tried, Nov. 5, and sentenced to twenty years in the Penitentiary. At Monticello a negro named Merriwether, who was lynched for murder, made a confession implicating three others, whereupon the mob, after disposing of him, "rushed back to the jail to get the other negroes, who had been arrested on suspicion. Ropes were put around their necks, and they were dragged to the place where Merriwether's bullet-riddled body was hanging. A large number of citizens rushed to the scene. It was only by the most vigorous efforts that this lynching was prevented. One of the negroes was about to be drawn up on a limb when a young white man jumped forward and cut the rope. The mob then gave up, and the three negroes were turned over to the sheriff." On Dec. 6 another negro, suspected of complicity in the murder, was lynched near Monticello.

At Wood's Bridge, Dec. 24, a negro charged with murder and arson was taken from the officers on the way to jail and lynched. In June the grand jury was engaged in the investigation of the alleged demolition of a general merchandise store in Chickamauga by two regiments of soldiers, said to be Pennsylvania and Illinois troops. According to the statement, "the men reached Chickamauga and a few of the hungry soldiers stepped into Berger's store to buy food. While he was waiting on the men their comrades made a rush into the store and began to help themselves. Berger made an effort to stop the robbery, but was helpless against hundreds of reckless soldiers. He had to stand and see the men demolish his store and carry off its contents. The soldiers did not confine their foraging to the estates, but took the dry goods and wasted what was not wanted. There were other disorders in the neighborhood of Chickamauga and Lytle connected with the attempted enforcement of liquor laws.

The State Boundary.—Georgia and Tennessee have a boundary dispute which involves possession of the city of Chattanooga. The present boundary line places the city in Tennessee, but several expert geographers have recently found information which goes to show that the boundary line is not located properly. The boundary line between the States is the thirty-fifth parallel of north latitude, and this was located by a survey in 1818 at a point one mile south of Tennessee river. Georgia will claim that a correct survey will place the thirty-fifth parallel north of Lookout mountain, and that more than 100,000 citizens of Tennessee will have to become citizens of Georgia.

Peace Jubilee.—Dec. 14 and 15 were set for a jubilee in Atlanta over the return of peace, but the President sent a telegram in November requesting the committee to change the name of the celebration from "peace jubilee" to a demonstration over "our victorious arms," giving as the reason for the change "the uncertain outcome of the Paris conference and the exigencies which may arise." The executive committee of the celebration held a special meeting and decided to call the demonstration "the Atlanta jubilee." The President addressed the Legislature, Dec. 14, and a banquet was given on the evening of Dec. 15. The President also made speeches in other cities. At Macon an address of welcome was given by the commander of the Bibb County Veterans' Association and Bibb County Camp, No. 484, in which he said:

"You, sir, have endeared yourself to the hearts of all Confederate soldiers on account of the noble sentiments expressed by you in regard to our Confederate dead. I assure you that these old, maimed, and infirm veterans who have met here to do you honor to-day appreciate such words of love and kindness, and uttered, too, by the President of this great country and by one who was a member of the Union army in the sixties. I hope and pray, Mr. President, that God in his infinite mercy may so direct the future legislation of this country that the living Confederates will be remembered. This country and the Stars and Stripes belong as much to the Confederate veterans as to the Grand Army of the Republic. The South proved its loyalty to this grand old country when war was declared with Spain, and now, henceforth, and forever she will be found ready to take up arms to defend our country and our flag. Mr. President, on behalf of these brave and maimed Confederate soldiers of Bibb County, Georgia, I present to you this parchment, engrossed in letters of gold, the beautiful sentiment expressed by you in our capital city in regard to our honored dead."

Another Confederate veteran offered the President a badge of a Confederate Veterans' Association, which was accepted and worn by the President during his stay in Macon.

Legislative Session.—This began Oct. 28, and ended in December.

President McKinley made a speech before the joint session on Dec. 14, and the following passage was received with great enthusiasm:

"Every soldier's grave made during our unfortunate civil war is a tribute to American valor. And while, when those graves were made, we differed widely about the future of the Government, those differences were long ago settled by the arbitrament of arms, and the time has now come in the evolution of sentiment and feeling, under the providence of God, when in the spirit of fraternity we should share with you in the care of the graves of the Confederate soldiers."

The following resolutions were unanimously adopted, Dec. 15:

"Resolved, By the House, the Senate concurring, that as the chosen representatives of the people of Georgia we desire to express our high appreciation of the chaste, eloquent, and enthusiastic address delivered in the presence of this General Assembly in the hall of the House of Representatives on yesterday by his Excellency, William McKinley, President of the United States.

"Resolved, further, That President McKinley by his ready recognition of Southern ability and Southern worth in military appointments made at the outbreak and during the recent Spanish-American War won a warm place in the hearts of all of our people and endeared himself to the country at large.

"Resolved, further, That we desire especially to commend and applaud the generous and soldierly suggestion made by his Excellency that the North should share in the care of the graves of the Confederate soldiers.

"Resolved, further, That the Secretary of the Senate and the clerk of the House of Representatives be instructed immediately after the adoption of these resolutions to have a copy of the same enrolled and duly attested and that they deliver the same to his Excellency, the President, in person, before he leaves the capital of the State."

Among the important measures before the Legislature were several designed to reduce State expenditures and lower the rate of taxation. It is estimated that those which were adopted will reduce the rate from 6.21 mills to 5.36 mills. The most important act in this direction was the re-

duction of the common-school appropriation from \$1,000,000 to \$800,000.

Measures were proposed also for making taxation more equitable and reaching property that escapes paying its just proportion. A set of questions was prepared and embodied in the general tax bill. They call for exact answers as to the quantity and value of the various kinds of property, and every taxpayer is to be required to answer them under oath. Further, a resolution was passed providing for the appointment of a board of tax commissioners to consider the tax problem in its different phases and to report at the next session of the General Assembly in 1899.

In the House 435 bills and 149 resolutions were introduced, and 157 of them were passed. The number passed of those originating in the Senate was 37.

Political.—A Governor and other State officers were to be elected in October. The candidates of the Democratic party were chosen at the primaries, June 6, and were nominated by the State convention held in Atlanta, June 29. The platform declared the war with Spain to be "just and righteous," and demanded that Spain be driven from the Western Hemisphere. It urged the construction of the Nicaragua Canal, and declared in favor of the free coinage of gold and silver at the ratio of 16 to 1. On State issues it approved the uniform primaries called by the State Executive Committee to ascertain the choice of the people for the nominations to be made by the convention, and instructed the committee to make similar provision for choosing future candidates for State offices, and to declare the official form of a ballot for use at the primaries, containing the names of all candidates to be voted for, and allowing no other to be recognized. It favored the nomination of candidates for the Senate by direct vote of the people. It commended the existing State administration and called for liberality to the public schools; and said further:

"We commend the last General Assembly for the improvement inaugurated in the State Penitentiary system, and we urge upon the prison commissioners to give immediate attention to the establishment of a reformatory for youthful criminals.

"We refer with pride to the fact that the State of Georgia has been more liberal than any other State in the matter of pensions to Confederate veterans, and we believe it is the duty of the General Assembly to make adequate provisions, for the future, for all Confederate veterans and the widows of Confederate veterans who are in dependent or needy circumstances."

The candidates were: For Governor, Allen D. Candler; Secretary of State, Philip Cook; Attorney-General, Joseph M. Terrell; Comptroller General, William A. Wright; Commissioner of Agriculture, O. B. Stevens; Commissioner of Schools, G. R. Glenn; Treasurer, W. J. Speer; Prison Commissioner, J. S. Turner.

The Populists held a convention in March and nominated Thomas E. Watson for Governor. He declined to run and J. R. Hogan was afterward made the candidate. Republicans and Populists fused in many of the districts.

The total vote for Governor, Oct. 5, was 164,089—about 20 per cent. less than that of 1896. The Democrats carried the election by large majorities; Candler's was given as 67,923 (not official). The Democratic vote in the Legislature is overwhelming. All the eleven Congressmen elected are Democrats. A proposition to amend the Constitution so that the judges and solicitors of the Superior Court shall be elected by the people was carried. The city of Atlanta decided in favor of municipal ownership of the electric-light plant.

GERMAN EVANGELICAL CHURCH. The German Evangelical Synod of North America returns for 1898 872 ministers, 1,130 churches, and 199,234 communicants. The figures show a decrease of 6 ministers and an increase of 4,618 communicants, while the number of congregations remain the same as in 1897. The General Conference held its triennial session at Quincy, Ill., Sept. 20 to 29. The Rev. Paul L. Mengel, D.D., of Richmond, Va., was appointed a delegate to represent the Synod at the dedication of the Evangelical Church in Jerusalem, to take place Oct. 31. A question of several years' standing respecting the legal position of the teachers in the parochial schools was settled by granting them a full representation in the General Conference; the revision of the constitution of the Synod was proceeded with; a board of home missions was instituted; the publication of a hymn book and of a Sunday-school paper, both in the English language, was authorized. Measures were taken looking to the celebration of the semi-centennial anniversary, the theological institution of the church, July 4, 1900, and in reference to further provision for the educational institutions, to the reduction of the indebtedness of the Church and to the enlargement of its publishing house.

GERMANY, an empire in central Europe composed of the federated German states. The King of Prussia is German Emperor, and as such has supreme charge of military and political affairs, and power to make war or conclude peace, except that for an offensive war he must have the consent of the federated states and princes. There are two legislative bodies—the Bundesrath, representing the federated states, and the Reichstag, representing the German people. The acts on which they agree become law on receiving the Emperor's assent and being countersigned by the Chancellor of the Empire. The Bundesrath has 58 members, appointed by the governments of the federated states. The Reichstag has 397 members, 1 to 124,500 of population, elected for five years by universal manhood suffrage and by secret ballot.

The German Emperor is Wilhelm II, born Jan. 27, 1859, who succeeded his father, Friedrich III, King of Prussia and German Emperor, on June 15, 1888. The heir apparent is the Emperor's eldest son, Prince Friedrich Wilhelm, born May 8, 1882.

The Chancellor of the Empire is Prince Hohenlohe-Schillingsfürst, appointed Oct. 29, 1894. The following were the secretaries of state in charge of the various departments at the beginning of 1898: Ministry of Foreign Affairs, B. von Bülow; Secretary of the Interior and Representative of the Chancellor, Graf Posadowsky-Wehner; Secretary of the Imperial Marine, Rear-Admiral Tirpitz; Ministry of Justice, Dr. A. Nieberding; Imperial Treasury, Freiherr von Thielmann; Imperial Post Office, Lieut.-Gen. von Podbielski; Imperial Railroads, Dr. Schulz; Imperial Exchequer, Herr von Wolff; Imperial Invalid Fund, Dr. Rösing; President of the Imperial Bank, Dr. Koch; Imperial Debt Commission, Herr von Hoffmann.

Area and Population.—The area and population of the states of the empire according to the completed returns of the census of 1895, compared with the population at the last preceding census period, are given in the table at the head of the next column.

The total population in 1895 was divided into 25,661,250 males and 26,618,651 females. The number of marriages in 1895 was 414,218; of births, 1,941,644; of deaths, 1,215,854; excess of births, 725,790. The number of emigrants in 1896 was 33,824, of whom 29,007 went to the United States, 1,001 to Brazil, 2,152 to other parts of America, 1,246 to Africa, 144 to Asia, and 174 to Australia.

STATES.	Square miles.	POPULATION	
		Dec. 1, 1890.	Dec. 2, 1895.
Prussia	134,608	29,957,367	31,855,123
Bavaria	29,282	5,594,982	5,818,544
Württemberg	7,528	2,086,522	2,061,151
Baden	5,821	1,657,867	1,725,464
Saxony	5,787	3,502,684	3,787,688
Mecklenburg-Schwerin	5,135	578,342	597,436
Hesse	2,966	992,883	1,039,020
Oldenburg	2,479	354,968	373,739
Brunswick	1,424	408,773	434,213
Saxe-Weimar	1,888	326,091	339,217
Mecklenburg-Strelitz	1,131	97,978	101,540
Saxe-Meiningen	953	223,832	234,005
Anhalt	906	271,963	293,298
Saxe-Coburg-Gotha	755	296,513	316,603
Saxe-Altenburg	511	170,864	180,813
Lippe	469	123,495	134,864
Waldeck	433	57,281	57,786
Schwarzburg - Rudolstadt	363	65,863	68,685
Schwarzburg - Sondershausen	333	75,510	78,074
Reuss-Schleiz	319	119,811	132,130
Schaumburg-Lippe	181	39,163	41,224
Reuss-Greiz	122	62,754	67,468
Hamburg	158	622,580	681,632
Lübeck	115	76,495	83,324
Bremen	99	180,443	196,404
Alsace-Lorraine	5,600	1,603,506	1,640,986
Total	306,830	49,428,470	52,279,901

There sailed in 1896 from German ports 95,803 emigrants of other countries than Germany. Of the German emigrants who embarked at German, Dutch, and Belgian ports, 17,549 were males and 14,513 females. There were 3,907 families, numbering 12,770 persons. The emigration from Germany to the United States since 1871 has been 2,404,782; the total emigration from 1820 to 1896, about 5,230,000. The emigration to Brazil since 1871 has been 49,440. Of the emigrants of 1896, not counting 1,710 who sailed from French ports, 19,459 were Prussians, 3,418 Bavarians, 2,121 from Württemberg, 1,080 from Baden, 1,308 from Saxony, 1,644 from Hamburg, 558 from Hesse, 645 from Bremen, 345 from Mecklenburg-Schwerin, 340 from Oldenburg, and 268 from Alsace-Lorraine.

Finances.—The customs, stamp, and excise duties, and the profits of the imperial railroads, the post office, and the telegraph service are the chief resources from which are defrayed the common expenditures of the empire; but, as these are insufficient, the deficit is made up by matricular contributions from the states assessed in proportion to their population. The total revenue for the year ending March 31, 1898, was estimated in the budget at 1,295,468,300 marks, of which 653,131,500 marks came from customs and excise duties, 61,873,000 marks from stamps, 41,253,100 marks from posts and telegraphs, 1,546,800 marks from the imperial printing office, 25,405,600 marks from railroads, 3,506,100 marks from the Imperial Bank, 17,378,500 marks from various departments, 28,683,000 marks from interest of the Invalid fund, 411,100 marks from various ordinary sources, 47,459,900 marks from extraordinary sources, and 414,824,700 marks from the federal contributions. The customs receipts amount to 372,480,000 marks; tobacco duty, 11,293,000 marks; sugar duty, 81,000,000 marks; salt duty, 45,669,000 marks; spirit duty, 115,783,000 marks; duty on beer, 26,843,000 marks. Bavaria, Württemberg, Baden, and Alsace-Lorraine, which have their own postal and telegraph services, collect and expend the beer duty separately, furnishing in compensation higher matricular contributions. The stamp duties turned into the imperial treasury are 1,366,000 marks from playing cards, 8,183,000 marks from letters of exchange, 51,521,000 marks from securities, bills, lottery tickets, etc., and 803,000 marks from certificates. The gross receipts of the

posts and telegraphs amount to 314,683,150 marks, and expenses to 273,726,968 marks; the gross receipts of the imperial printing office to 6,817,000 marks, and expenses to 4,770,841 marks; the gross railroad receipts to 70,431,000 marks, and expenses to 45,052,600 marks. There was a surplus of 12,107,690 marks remaining over from 1897.

The total imperial expenditure for 1898 was estimated at 1,807,576,000 marks, of which 1,168,210,500 marks are the ordinary recurring expenditures and 139,365,500 marks non-recurring and extraordinary expenditures. Of the recurring expenditures 658,200 marks are for the Reichstag, 159,200 marks for the Imperial Chancellery, 10,961,600 marks for the Ministry of Foreign Affairs, 86,712,200 marks for the Ministry of the Interior, 486,409,000 marks for the army, 58,925,800 marks for the navy, 1,981,000 marks for the Ministry of Justice, 409,151,300 marks for the imperial treasury, 357,000 marks for the railroad office, 76,191,300 marks for the debt of the empire, 740,500 marks for the audit office, 57,459,400 marks for the Pension fund, and 28,504,500 marks for the Invalid fund. The total expenditure for the army is 539,973,000 marks, and for the navy 116,974,000 marks, including 97,936,355 marks of extraordinary expenses for the army and 58,094,968 marks for the navy. Of the other extraordinary expenditures 8,440,000 marks were for railroads, 8,484,520 marks for foreign affairs, 8,297,828 marks for posts and telegraphs, and 9,298,377 marks for the Invalid fund. Of the federal contributions for 1898 Prussia pays 243,490,000 marks, Bavaria 54,237,000 marks, Saxony 28,931,000 marks, Württemberg 19,047,000 marks, Baden 14,391,000 marks, Alsace-Lorraine 13,692,000 marks, Hesse 7,942,000 marks, and the smaller states and free cities in proportion.

The debt of the empire on March 31, 1896, amounted to 2,245,273,100 marks, of which 450,000,000 marks were borrowed at the rate of 4 per cent. per annum, 790,000,000 marks at 3½ per cent., and 885,855,100 marks of old debts paying 3½ per cent. were refunded at 3 per cent., and new obligations emitted since 1890 at 3 per cent.

The Invalid fund on March 31, 1896, amounted to 447,708,993 marks. The war treasure of 120,000,000 marks is hoarded in gold at Spandau.

The following table gives, in marks, the budgets and debts of the different states for 1898 or, in the case of a few, for 1897:

STATES.	Revenue.	Expenditure.	Debt.
Alsace-Lorraine	53,508,596	52,619,000	24,115,000
Anhalt	22,861,250	22,861,250	778,124
Baden	81,506,809	87,520,764	335,172,985
Bavaria	345,356,505	345,356,505	1,418,443,185
Bremen	18,546,681	20,447,631	142,359,853
Brunswick	16,300,500	16,300,500	27,408,738
Hamburg	73,352,612	75,967,353	325,485,781
Hesse	37,576,000	37,516,000	163,400,000
Lippe	1,194,318	1,194,318	.....
Lübeck	4,573,427	4,573,427	19,130,020
Mecklenburg-Schwerin	3,952,000	3,952,000	113,531,800
Mecklenburg-Strelitz .....	.....	.....	6,000,000
Oldenburg	10,369,137	8,949,681	50,690,709
Prussia	2,046,031,385	2,046,031,385	6,498,138,631
Reuss-Greiz	1,332,418	1,332,418	61,060
Reuss-Schleitz	2,896,900	2,379,794	1,040,530
Saxe-Altenburg	4,057,798	4,056,189	887,450
Saxe-Coburg-Gotha	5,313,743	5,985,658	2,924,858
Saxe-Meiningen	7,624,390	6,802,800	9,174,331
Saxe-Weimar	9,656,218	9,656,218	4,870,943
Saxony	77,604,250	77,604,250	716,993,900
Schaumburg-Lippe	1,029,210	1,029,210	360,000
Schwarzburg-Rudolstadt	2,778,050	2,778,050	3,884,000
Schwarzburg-Sondershausen	2,964,755	2,964,755	3,044,145
Waldeck	1,410,428	1,410,428	2,037,000
Württemberg	74,123,540	74,696,813	473,878,700

Against the debts must be offset the productive state property for which they were mainly incurred,

fully covering the debt of Alsace-Lorraine, Baden, Bavaria, Bremen, Hamburg, Mecklenburg-Schwerin, Mecklenburg-Strelitz, Oldenburg, Saxe-Coburg, Saxe-Meiningen, Saxe-Weimar, and Württemberg, and amounting to 5,535,622 marks in Anhalt, 42,000,000 marks in Brunswick, 154,100,000 marks in Hesse, 5,544,120 marks in Saxe-Altenburg, and 838,403,742 marks in Saxony.

The Army.—By the law of Aug. 3, 1893, which continues in force till the end of the fiscal year, 1899, the average peace strength of the imperial army is 479,229 men, exclusive of volunteers of officers and of surgeons, paymasters, and other non-combatants. The number of young men arriving at the age of twenty every year is about 400,000, of whom 10 per cent. are unfit for service by reason of physical or moral defects, or are lost by emigration, or join the army as volunteers. Of those who are available, men enough are drawn by lot to fill up the ranks of the active army, in which they serve two years, except in the cavalry and horse artillery, in which the term of active service is three years. The one-year volunteers, numbering about 8,000, are not counted in the budget strength of the regular army, which for 1898 was as follows: 215 regiments of infantry, numbering 12,048 officers and 363,113 men; 19 battalions of rifles, 410 officers and 12,013 men; 288 depots, 797 officers and 5,478 men; 2,684 surgeons, instructors, etc., making the total infantry 13,255 officers and 383,288 men; 93 regiments of cavalry, 2,375 officers and 65,688 men, exclusive of 823 officers and men on special service; 43 regiments of field artillery, 2,671 officers and 57,997 men, exclusive of 810 officers and men on special service; 17 regiments and 1 battalion of foot artillery, 869 officers and 22,734 men, exclusive of 132 officers and men on special service; 23 battalions of pioneers, 2 balloon detachments, 3 regiments of railroad troops, 1 railroad battalion, and 3 railroad companies, 738 officers and 19,086 men, exclusive of 126 on special service; 21 battalions of train, 310 officers and 7,750 men, exclusive of 69 on special service; special formations containing 506 officers and 3,570 men; and 2,364 non-regimental officers, with 279 men, making the total strength on the peace footing 23,088 officers and 562,352 men, with 97,850 horses. The battalion in the German army has a normal peace strength of 544 men, and in war is raised by calling in a part of the reserves to 1,002 men. There are 494 field batteries, including 47 mounted batteries, each consisting in time of peace of 4 and in war of 6 guns. Every one of the 21 *corps d'armée* can be mobilized independently, as it includes troops of all arms, auxiliary services, and all the stores and equipments necessary for action as a separate army.

The Navy.—The effective navy on Jan. 1, 1898, consisted of 6 first-class, 4 second-class, and 6 third-class battle ships, 19 armored gun vessels and old ironclads suitable for coast defense, 2 first-class and 6 second-class cruisers, 11 lookout ships, and 105 first-class and 9 second-class torpedo craft. Besides these a battle ship of the first class, 2 cruisers, a lookout ship, and 6 destroyers were building.

The *personnel* of the navy at the beginning of 1898 consisted of 1,014 officers and engineers, 5,389 petty officers, 16,778 seamen, and 222 surgeons, paymasters, and gunsmiths, making the total number of men 23,403.

Commerce and Production.—The production of wheat in 1897 was 3,008,385 metric tons; of rye, 7,232,320; of barley, 2,317,334; of oats, 4,968,272; of buckwheat, 95,205; of potatoes, 29,278,132; of sugar beets, 12,616,432; of other beets and turnips, 10,526,403; of hops, 25,325; of wine, 5,050,808 hectolitres. The quantities of minerals produced in 1896 were 85,639,900 tons of coal, 26,797,900 of

lignite, 14,162,300 of iron ore, 729,900 of zinc ore, 154,700 of lead ore, 717,800 of copper ore, 755,800 of rock salt, 1,780,400 of potassic salt, and 286,600 of other products. Of pig iron 5,464,501 tons were produced in 1895; of zinc, 150,286 tons; of lead, 111,058 tons; of copper, 25,777; of silver, 392; of tin, 884; of sulphur and sulphuric acid, 539,989; of gold, 3,547 kilogrammes; of nickel, bismuth, and other products, 30,809 tons; of manufactured iron, 6,193,480 tons. There were 1,537,522 tons of raw sugar and 328,463 tons of molasses produced in 1896 from 11,672,816 tons of beet root. The beer brewed amounted to 37,733,000 hectolitres in the imperial excise district, 16,034,000 in Bavaria, 3,885,000 in Württemberg, 1,914,000 in Baden, and 997,000 in Alsace-Lorraine; total, 60,563,000 hectolitres. The production of alcohol was 3,334,000 hectolitres.

The special imports in 1896 into the imperial customs territory, which contains 52,485,807 inhabitants, and includes Luxembourg and two communes in Austria, but does not include the free ports reserved in Hamburg and Bremen nor certain petty districts in Prussia and Baden, were valued at 4,557,951,000 marks, and the special exports at 3,753,822,000 marks. The imports of live animals were 157,749,000 marks, and exports 23,951,000 marks; imports of animal products, 117,498,000 marks, and exports 26,361,000 marks; imports of articles of consumption, 1,324,266,000 marks, and exports 426,752,000 marks; imports of seeds and plants, 53,237,000 marks, and exports 32,500,000 marks; imports of fuel, 116,854,000 marks, and exports 165,157,000 marks; imports of fats and oils, 245,895,000 marks, and exports 31,656,000 marks; imports of chemicals, drugs, and dyes, 284,225,000 marks, and exports 360,743,000 marks; imports of stone, clay, and glass, 64,014,000 marks, and exports 155,005,000 marks; imports of metals and metal manufactures, 471,500,000 marks, and exports 658,929,000 marks; imports of wood manufactures, 274,173,000 marks, and exports 124,550,000 marks; imports of paper and paper manufactures, 21,776,000 marks, and exports 106,985,000 marks; imports of leather and leather manufactures, 211,353,000 marks, and exports 216,480,000 marks; imports of textile materials and manufactures, 1,040,828,000 marks, and exports 957,422,000 marks; imports of rubber and rubber manufactures, 45,639,000 marks, and exports 31,916,000 marks; imports of machinery and instruments, 69,888,000 marks, and exports 212,656,000 marks; imports of hardware, etc., 18,495,000 marks, and exports 100,854,000 marks; imports of works of literature and art, 41,061,000 marks, and exports 120,727,000 marks; various other exports, 1,178,000 marks. The imports of horses were 73,594,000 marks in value; of hogs, 6,873,000 marks; of wheat, 197,943,000 marks; of rye, 85,491,000 marks; of barley, 108,850,000 marks; of coffee, 189,294,000 marks; of petroleum, 57,481,000 marks; of hides, 114,775,000 marks; of raw cotton, 238,810,000 marks; of wool, 237,125,000 marks; of woolen yarn, 114,084,000 marks; of raw silk, 83,567,000 marks. The exports of sugar were 236,352,000 marks; of coal and coke, 157,882,000 marks; of hops, 19,556,000 marks; of aniline colors, 64,932,000 marks; of wooden wares, 57,517,000 marks; of paper, 67,364,000 marks; of leather goods, 77,268,000 marks; of coarse cottons, 62,869,000 marks; of mixed silk and cotton cloth, 98,327,000 marks; of woolen cloth, 149,904,000 marks; of hosiery, 92,185,000 marks; of haberdashery, 121,499,000 marks. Of the total imports in 1896 the value of 2,336,369,000 marks paid duties, and the value of 2,221,582,000 marks was free of duty. The gold and silver imports in 1896 were 233,552,000 marks, and the exports 227,989,000 marks.

The participation of the different countries in the commerce of the German customs union in 1896 is shown in the following table, giving, in marks, the values of the imports from and of the exports to each country:

COUNTRIES.	Imports.	Exports.
German free ports.....	15,801,000	40,456,000
Great Britain.....	647,773,000	715,946,000
Austria-Hungary.....	578,032,000	477,324,000
Russia.....	634,671,000	364,142,000
Netherlands.....	162,632,000	262,265,000
France.....	233,587,000	201,553,000
Switzerland.....	146,343,000	243,953,000
Belgium.....	175,702,000	168,000,000
Italy.....	137,484,000	85,630,000
Norway and Sweden.....	93,109,000	127,144,000
Denmark.....	58,224,000	97,417,000
Spain.....	35,942,000	39,428,000
Balkan countries.....	114,830,000	72,702,000
Portugal.....	15,226,000	13,412,000
British India.....	171,163,000	49,179,000
Other countries in Asia.....	132,324,000	99,123,000
Africa.....	88,588,000	57,457,000
North America.....	640,142,000	424,766,000
South America.....	369,417,000	182,307,000
Australia.....	104,464,000	30,044,000
All other countries.....	2,498,000	1,574,000
Total.....	4,557,951,000	3,753,822,000

The Prussian Minister of Finance on Jan. 30, 1898, issued an order prohibiting on sanitary grounds the importation of fresh fruits from the United States. The ostensible cause for this interdiction, which was suspected to be a protectionist measure for the benefit of German fruit-growers and a retaliation for the differential duty placed on sugar from bounty-paying countries, was the discovery of the San José scale in a consignment of Californian pears. Negotiations were carried on with foreign governments during 1898 for new commercial treaties. The Anglo-German treaty, which the British Government had denounced in order to secure preferential treatment for British goods from Canada, expired on July 30, 1898. In accordance with a special law enacted on May 11, a *modus vivendi* was proclaimed for one year, according most-favored-nation treatment to imports from the United Kingdom and from British colonies and possessions which do not impose heavier duties on German than on British goods.

Navigation.—The number of vessels entered at German ports during 1895 was 66,688, of 15,183,222 tons, of which 57,436, of 14,225,271 tons, were with cargoes and 9,252, of 957,951 tons, in ballast. The total number cleared was 67,142, of 15,285,527 tons, of which 49,948, of 10,227,895 tons, were with cargoes and 17,194, of 5,057,632 tons, in ballast. There were 41,287 German ships, of 7,340,252 tons, entered with cargoes and 7,121, of 566,789 tons, in ballast, and 16,149 foreign ships, of 6,885,019 tons, entered with cargoes and 2,131, of 391,162 tons, in ballast. Of the total number cleared 38,803, of 6,505,186 tons, were German and 11,145, of 3,722,709 tons, foreign ships carrying cargoes and 10,164, of 1,526,031 tons, German and 7,030, of 3,531,601 tons, foreign ships in ballast. Of the foreign ships entered with cargoes 5,462, of 4,581,352 tons, were British; 4,638, of 748,619 tons, Danish; 3,053, of 590,122 tons, Swedish; 1,312, of 206,593 tons, Dutch; 948, of 391,906 tons, Norwegian, and 510, of 168,152 tons, Russian. Of the number cleared with cargoes 3,017, of 2,017,222 tons, were British; 4,232, of 633,983 tons, Danish; 1,807, of 409,884 tons, Swedish; 1,011, of 182,001 tons, Dutch; 632, of 246,940 tons, Norwegian, and 281, of 93,528 tons, Russian.

The merchant navy of Germany on Jan. 1, 1897, comprised 2,552 sailing vessels, of 597,617 tons, and 1,126 steamers, of 889,960 tons. Of the sailing vessels 509, of 76,703 tons, belonged to Baltic and 2,043, of 520,914 tons, to North Sea ports, and of

the steamers 389, of 142,818 tons, to Baltic and 737, of 747,142 tons, to North Sea ports. The number of sailors was 40,805. Of the sailing vessels 496, and of the steamers 1,119 were constructed entirely of iron or steel. There were 29 sailing vessels and 268 steamers over 2,000 tons, 218 sailing vessels and 185 steamers between 1,000 and 2,000 tons, 114 sailing vessels and 231 steamers between 500 and 1,000 tons, 414 sailing vessels and 309 steamers between 100 and 500 tons, and 1,777 sailing vessels and 133 steamers under 100 tons.

Communications.—There were 28,882 miles of railroads in operation on Jan. 1, 1897, of which 26,065 miles were owned by the imperial and state governments and 183 miles of private lines were operated by the Government, while 2,634 miles remained in the hands of companies. There were, besides, 1,942 miles of private railroads not open to public traffic. The capital expenditure on the state railroads was 11,481,738,000 marks. The total receipts in 1896 were 1,504,375,000 marks. Expenses, 856,722,000 marks. There were 592,333,000 passengers transported during the year, paying 405,973,000 marks, and 248,055,000 tons of freight, paying 984,103,000 marks.

The number of letters that passed through the imperial post office and the separate post offices of Bavaria and Württemberg in 1896 was 1,395,405,590; of postal cards, 509,534,530; of printed inclosures, 668,296,280; of samples, 41,262,690; of newspapers, 1,126,816,947. The amount of money sent was 22,600,006,382 marks. The receipts from the post office and telegraph service were 339,792,074 marks; expenses, 308,184,429 marks. There were 72,220 miles of telegraph lines, with 282,949 miles of wire, in the imperial postal territory; 8,961 miles of lines, with 28,961 miles of wire, in Bavaria; and 3,189 miles of line, with 8,915 miles of wire, in Württemberg; total, 84,370 miles of line and 320,825 miles of wire. The telegrams forwarded numbered 24,540,795 internal, 9,811,642 foreign in the *Reichspostgebiet*, 2,098,822 internal and 559,873 foreign in Bavaria, and 1,184,220 internal, and 196,872 foreign in Württemberg; total, 27,823,837 internal and 10,568,387 foreign.

Colonies.—The colonial Empire of Germany dates only from 1884. Shores of Africa and islands of the Pacific not yet claimed by European powers began to be occupied and declared German protectorates with the object of obtaining new fields for the growing foreign commerce of Germany and colonies in which German emigrants would remain loyal subjects instead of becoming American citizens. The regions in Africa taken under German protection between 1884 and 1890 have a total area of 920,920 square miles and a native population estimated at 10,200,000. (See CAPE COLONY AND SOUTH AFRICA, EAST AFRICA, AND WEST AFRICA.) In the Pacific the part of southeastern New Guinea to which the name of Kaiser Wilhelmsland was given, and the Bismarck Archipelago, previously known as New Britain, were proclaimed German protectorates in 1885, and in the following year the Northern Solomon Islands and the Marshall Islands.

Kaiser Wilhelmsland, including Long Island, Dampier Island, etc., has a total area of about 70,000 square miles, with a population estimated at 110,000. Cotton and tobacco are planted, and horses, cattle, and goats have been introduced. The cocoanut palms are well taken care of. Areca and sago palms, bamboos, and ebony and other cabinet woods abound in the forests. Besides copra, trepang and mother-of-pearl are bartered by the natives for trade goods. Gold was discovered in 1897 in the Bismarck mountains. The revenue for 1897 was estimated at 93,000 marks, and expenditure at 273,000 marks.

The Bismarck Archipelago comprises the islands once known as New Britain, New Ireland, and the Duke of York Islands, together with New Hanover, Admiralty, Anchorite, Hermit, and other islands. The total area is about 20,000 square miles; population, 188,000. The exports are copra and cocoanut fiber.

Bougainville, Choiseul, and Isabel are the principal islands in the part of the Solomon Islands belonging to Germany, the area of which is about 9,000 square miles, with 89,000 population. The chief exports are sandalwood and tortoise shell.

The administration as well as the trade of Kaiser Wilhelmsland, the Bismarck Archipelago, and the Solomon Islands, has been given over to the German New Guinea Company, which has three steamers and numerous sailing vessels. There were 164 Europeans, of whom 97 were Germans, residing in the protectorate of Kaiser Wilhelmsland and the Bismarck Archipelago in 1896.

The Marshall Islands are under an Imperial Commissioner. Their aggregate area is 150 square miles, with 13,000 population, including 58 whites, of whom 45 are Germans. They are coral islands on which the cocoanut palm grows luxuriantly. In 1897 the export of copra was 2,362 tons.

Session of the Reichstag.—The session of the Reichstag was closed on May 6. The discussion of the navy bill took up a large part of the time. After the new Foreign Minister, Herr Von Bülow, announced the occupation of Kiauchau, its passage was assured. The bill presented a programme of construction extending over six years, which will so enlarge the navy as to enable it to prevent a blockade by attacking the enemies on the seas, the theory that the coasts can defend themselves having been abandoned. It fixed the maximum and the minimum strength of the navy. The automatic replacement of vessels was provided for at the end of their probable period of efficiency—twenty-five years for battle ships, twenty years for large cruisers, and fifteen years for small ones—it being stipulated that their lives can be prolonged by the decision of the Federal Council or shortened by the decision of the Reichstag. The manner of raising money for the increased expenditure was much discussed. The Government estimated that the ordinary revenue would be sufficient each year. In case it should not, the Clericals and other parties proposed special taxes that would fall only on the rich. The Government in the end carried a clause declaring that the additional sum required should not be defrayed by means of increasing indirect taxation on articles consumed by the masses. The acceptance of this declaration was secured by giving an additional pledge that the burden of any new taxes required should be laid on the strongest shoulders. The bill was passed on March 28, a part of the Clericals, including the Poles and the Guelphs, voting against it, with the Radical Left, the Social Democrats, the South German Democrats, and a few Anti-Semites.

The long-promised bill for the reform of military judicial procedure was passed without much discussion, except on the right of accused persons to have civil counsel, which was denied, and on the question of a separate military supreme court for Bavaria, which was left in abeyance, to be settled by negotiation. It is left to the Emperor to decide in each case whether the procedure be public or whether reasons of state demand a secret trial.

Elections to the Reichstag.—The legislative period of the Reichstag, which was elected on June 15, 1893, expired on June 15, 1898, and the general election took place on June 16. As the once powerful Liberal party was split up into dwindling factions at war with each other, little interest was

taken in the electoral campaign, except by the highly organized Clerical and Social Democratic parties. The Government was sure of having a majority as long as it shaped legislation so as to retain the support of the Center party, which had come to be called the Government. Dr. Lieber, the Clerical leader, said that it was not that, but was the governing party, owing to the ability of its members, the unskillfulness of its opponents, and the determination of the Imperial Government to carry on the affairs of the country by the aid of any political party which from time to time may suit its purpose. The Clericals stood ready to unite with the Conservatives in carrying out positive legislation, in particular to promote the interests of all the productive classes, or on occasion to join with the Left in repelling assaults on the liberties of the people or attempts to overburden the nation with taxes. The campaign was suddenly quickened as the elections approached by a letter of Graf Posadowsky, which was taken to express the views of the Government. This manifesto invited all the parties of civil order to unite wherever possible in combating the Social Democracy. It seemed to countenance agrarianism and higher protection by its reference to aiding the producers by the settlement of difficult questions of international competition, and to promoting the prosperity of the classes whose interests were most endangered—agriculturists and the middle classes.

The National Liberal party was honeycombed with agrarianism. The Agrarian League had also made great gains among both Conservative parties and had numerous Clerical members. The two Radical parties, led by Richter and Rickert respectively, were concerned with nothing but their mutual rivalry. The Social Democrats, whose ideas were making alarming headway among the rural population, set up a candidate in every one of the 397 districts. As the result of the first ballots there were elected 85 Clericals, 38 Conservatives, 34 Social Democrats, 13 Poles, 10 Free Conservatives, 10 National Liberals, 5 Anti-Semites, 3 members of the Bavarian Peasants' League, 1 Moderate Radical, 1 member of the Radical Left, 1 member of the Agrarian League, 1 Dane, and 9 unattached. In the 186 constituencies to be decided by the second ballot, the Conservatives urged all adherents of the Government parties to support the Radical candidates against Social Democrats. The Radical Volkspartei of Herr Richter won 29 seats in the second balloting, which was held on June 24, and the Radical Left obtained 11, while the Socialists, who contested 101, won 24. The strength of the various parties in the new Reichstag was as follows: Center, 108; Social Democrats, 58; Conservatives, 57; National Liberals, 49; Radical People's party, 30; Free Conservatives, 20; Poles, 14; Radical Left, 12; South German Democrats, 11; Anti-Semites, 10; Guelphs, 8; Agrarian League, 4; Dane, 1; Independent, 15. Counting the candidates of the National Liberal, Conservative, and Center parties elected by the aid of the Agrarian League and pledged to support its demands, this organization commanded about 100 votes.

Prussian Legislation.—In the fifth and final session of the Prussian Landtag, which was opened on Jan. 11, 1898, the Government, which showed one of Dr. Miquel's gratifying budgets, allowing a large increase of expenditure in nearly all branches of administration, brought forward a bill for regulating the principles on which the revenue and expenditure of the state are to be administered, a measure which had long been demanded by the Liberal parties. An increase in the number of railroads was promised. Disastrous floods in Silesia suggested a comprehensive scheme for the regula-

tion of all rivers that are liable to inundation. The abolition of bonds for Government officials was proposed. A bill to increase the salaries of clergymen, both Protestant and Catholic, met with considerable opposition. In March, the Kaiser created a difficult situation in the Cabinet by appointing Baron von Bülow, Graf Posadowsky, and Admiral von Tirpitz three Imperial Secretaries, to be Prussian ministers without portfolios.

Angry protests were uttered by the Poles against the bill to double the fund of 100,000,000 marks, granted originally in 1886, for buying out Polish landowners in Posen and West Prussia in order to settle German farmers on the land. The Poles had increased rapidly in numbers, and advanced materially and intellectually as the result of the partition of the great estates, but their improvement had operated to the detriment of the German settlers, who were unable to compete with them in the same economic conditions, and were constantly emigrating to other parts of Germany. Even in the towns they were getting the upper hand among the middle classes. They held themselves aloof from the German population, and were accused of placing the intelligence that resulted from German civilization at the service of the Polish national cause. Under the act of 1886 2,200 German colonists had been settled on 109,000 acres of land by the expenditure of 80,000,000 marks. Prince Hohenlohe said that hopes had arisen of the separation of Posen from Prussia, or of a kind of federative union. The object of the bill was to strengthen the German element in order to counteract this federal tendency. His plan for the Germanization of Poland was obnoxious, not only to the Poles, but to the Clericals, who regarded it as a Protestant propaganda. The Polish leader, Herr von Jazdzewski, said that the Government, by aiding German settlers with state funds and placing the Polish and Catholic population at a disadvantage, only deepened the differences of nationality and religion and caused bitterness of feeling.

The measure for disciplining *Privatdozenten*, or university lecturers, roused a more general and not less bitter resentment and alarm, impairing, as it does, one of the most precious guarantees of the Prussian Constitution, the liberty of science and its teaching. Hence more than half of the professors in Berlin University signed a remonstrance. The occasion of the bill was the case of Dr. Arons, a wealthy adherent of the Social Democratic party, in which he was an active leader while retaining his post as lecturer in the University of Berlin, refusing to resign it after being warned by the faculty. The lecturers in the university are more free from Government control than professors, not being state officials. Lately there have been complaints about lecture rooms of the universities being turned into nurseries of socialism and anarchism. The bill carried by the Government authorizes the university authorities or the Minister of Education to warn or reprimand a *Privatdozent*. His license may also be taken away after a formal trial before the governing body of the university, from which appeal can be made to the Prussian ministry.

The session and the legislative period came to an end on May 18. Besides the measures passed in this session, the Diet had authorized the conversion of the 4-per-cent. loan, thus strengthening the financial basis of Prussia, and had established chambers of agriculture, securing a better representation for the suffering agricultural interest. The Government bill for restricting the rights of association and of public meeting in Prussia was defeated by Clerical Deputies joining the Liberal Opposition. The ministry refused to introduce an amendment to the laws regulating the union and

association of political societies except upon impossible conditions. The Saxon and Bavarian Diets passed measures withdrawing all restrictions to such union, and permitting women to join political societies, but not minors. Count Posadowsky sent a letter to the various German governments regarding the necessity of limiting the right of coalition so as to prevent picketing and intimidation by Socialist strike committees. This confidential circular was, as usual, intercepted by the Social Democrats and published in their organ, "Vorwärts." The epidemic of prosecutions for lese majesty culminated in the arrest and condemnation of Johannes Trojan, the veteran editor of the Berlin "Kladderadatsch," for publishing a cartoon ridiculing the Emperor Wilhelm's assertion, in an address to recruits, that only good Christians make brave soldiers.

GIFTS AND BEQUESTS. The following list comprises the most notable gifts and bequests for public purposes, of \$5,000 each and upward in amount or value, that were made, became operative, or were completed in the United States during 1898. It excludes the ordinary denominational contributions for educational and benevolent purposes, all State and municipal appropriations to public and sectarian institutions, and the grants of Congress for the relief of suffering in Cuba. The known value of the gifts and bequests here enumerated exceeds \$38,000,000. This amount is less than that of 1897, but it comprises a much larger number of items. It would be a pleasure, if it were possible, to record individually the grand outpouring of gifts for the benefit of our soldiers and sailors, in camp, on shipboard, and in hospital. A few examples are included here because they have an exceptionally broad interest. The State of Massachusetts is deserving of special mention for having provided for the national navy a swift and commodious hospital ship, which the women of that State furnished with every necessity and convenience for its humane mission, and which the Government afterward purchased for \$100,000. It is fair to assume that the gifts of the year that were diverted from benevolent and educational institutions found their way to the altar of patriotism.

Abendroth, William P., Port Chester, N. Y., bequest to the local Ladies' Hospital Association, \$5,000.

Akin, Albert J., New York city, gift to Pawling, N. Y., a library building that cost \$50,000, with an endowment of \$10,000.

Alexander, James B., bequests to the public schools, \$3,000, and the Methodist and Baptist churches, each \$2,000, all in Derry, N. H.

Allen, Judge Charles, Supreme Court of Massachusetts, gift to Franklin County Hospital, \$10,000.

Allen, Henry B., Waterloo, Iowa, gift to the city for a public hospital, his homestead, valued at \$15,000.

Alms, Mrs. Frederick, Cincinnati, Ohio, gifts to charitable and educational institutions, an aggregate of \$100,000, the bequests in her husband's unsigned will.

Altman, B., New York, gift toward a fund of \$1,000,000 for Hebrew educational purposes in New York, \$20,000.

American Board of Commissioners for Foreign Missions, bequests from friends, \$187,729.

American National Red Cross Relief Committee, gifts to, for relief of sick and wounded soldiers and sailors of the war with Spain, \$305,229, besides garments, cots, comforts, and some luxuries of an approximate value of \$80,000.

American University, at Washington, D. C., gifts from friends through Bishops Hurst and McCabe, \$50,000.

Ames, George L., Salem, Mass., bequests to the local Young Men's Christian Association, an estate valued at \$40,000; Calvary Baptist Church, \$5,000; South Congregational Church, \$3,500.

Anderson, Mrs. A. A., New York, gift to Barnard College, \$25,000.

Armour, George A., Princeton, N. J., gift to Princeton University to found a classical department in the library, \$10,000. He also pledged \$2,700 per annum for three years to support it.

Armour, Herman O., New York, gift to Whitworth College, Sumner, Wash., cash and real estate valued at \$20,000.

Armour, Philip D., Chicago, gift to Armour Institute of Technology, for additional endowment, \$500,000.

Astor, John Jacob, New York city, gift to the United States Government, a thoroughly equipped mountain battery of 6 12-pounder Hotchkiss rapid-fire guns, cost \$75,000. The battery was sent to Manila.

Austin, Edward, Boston, Mass., bequests to Harvard University, \$500,000; Massachusetts Institute of Technology, \$400,000; Radcliffe College, \$30,000; Roanoke College, \$30,000; and Tuskegee Normal and Industrial School, \$30,000—in each case interest to be used to aid needy and meritorious students and teachers; Harvard Bacteriological Laboratory, \$10,000; and for needy aged persons who have seen better days, a trust fund of \$100,000.

Averell, Mrs. Anna B., Chicago, gift to Presbyterian Hospital in that city, \$50,000.

Ayer, Frederick F., New York city, gift to Pennsylvania Hospital in Philadelphia, \$25,000.

Ayer, Josephine Mellin Southwick, Lowell, Mass., bequests to Ayer Home for Women and Children, in Lowell, \$100,000; to Pennsylvania Hospital, in Philadelphia, for a clinical laboratory, \$50,000.

Banigan, Joseph, Providence, R. I., bequests to Rhode Island Catholic Orphan Asylum, Home for Aged of the Little Sisters of the Poor at Pawtucket, St. Joseph's Hospital, Infant Asylum of St. Vincent de Paul, and the St. Maria Society, each \$25,000; Rhode Island Society for the Prevention of Cruelty to Children and Providence Lying-in Hospital, each \$10,000; and for St. Francis's Cemetery, an ultimate sum of \$100,000.

Barlow, George, Brooklyn, N. Y., bequests to local Methodist Episcopal and other charitable institutions, an aggregate of more than \$100,000.

Barnard College, New York, friends of, gifts that wiped out a debt of \$124,000 and insured an endowment of \$100,000 from a person whose name was withheld.

Barnard, Mary A., Amesbury, Mass., bequests to the public library, \$10,000; to educational, missionary, and charitable institutions, \$9,000.

Bates, Elizabeth H., M. D., Port Chester, N. Y., bequest to medical department of the University of Michigan, personal and real property valued at \$135,000.

Batterman, Henry, Brooklyn, N. Y., gift to Bushwick and East Brooklyn Dispensary, \$25,000.

Bayard, Thomas Francis, Wilmington, Del., bequest to the famous Old Swedes' Church, in Wilmington, \$5,000.

Beardsley, Bronson B., Bridgeport, Conn., bequests to charitable and missionary organizations, \$22,000.

Bedell, Julia, New York city, bequests to the Protestant Episcopal Church of the Diocese of Ohio, \$35,000; to the Protestant Episcopal Seminary, Gambier, Ohio, \$5,000, and for the Divinity School and College, \$20,000; and to the American Bible Society and the Domestic and Foreign Society of the Protestant Episcopal Church, the reversion of \$20,000 in equal parts.

Beloit College, Beloit, Wis., anonymous friend of, gift for a chair of Chemistry, \$25,000.

Bemis, J. M., and wife, Colorado Springs, Col., gift to Colorado College for a chair of English, \$10,000.

Bennett, Joseph M., Philadelphia, Pa., bequest to University of Pennsylvania for its proposed college for women, property valued at \$500,000.

Berea College, Kentucky, friends of, gifts, \$59,000.

Berk, Jacob, New York city, bequests to five Hebrew charitable institutions, each \$1,000.

Bigelow, Hannah E., Marlboro, Mass., bequests to local educational and charitable institutions for immediate use, \$18,500, and after two years the residue of her estate.

Bissell, Martin C., Joliet, Ill. (died in 1888), bequest, available by order of the court, to the General Convention of the Church of the New Jerusalem, his residuary estate of more than \$100,000.

Blackstone, Timothy B., Chicago, Ill., gift to the Blackstone Memorial Library built by him, a second endowment of \$100,000.

Blaine, Mrs. Emmons, Chicago, Ill., gift to the University of Chicago for a branch for public-school teachers, \$250,000.

Bowker, Mrs. Sarah Lamson, Newton, Mass., bequest to Maverick Congregational Church of East Boston, \$5,000.

Brackett, Nancy, Quincy, Mass., bequests to the American Unitarian Association of Boston, \$3,000, and the Quincy City Hospital, \$4,000.

Bradlee, J. Putnam, Boston, bequests, made available by the death of his sister, to the Kindergarten for the Blind, Massachusetts General Hospital, Massachusetts Eye and Ear Infirmary, Massachusetts Homœopathic Hospital and Perkins Institution for the Blind, each \$25,000; Free Hospital for Women, New England Hospital for Women and Children, and Society for the Relief of Aged and Destitute Clergymen, each \$20,000; Home for Aged Couples and Hospital Cottages for Children, Baldwinsville, each \$10,000; and seven other institutions, \$20,000—in all, \$225,000.

Brewster, Eugene A., Newburg, N. Y., bequests to St. Luke's Hospital, \$5,000, and St. George's Church, \$3,000.

Brooks, Horatio G., heirs of, Dunkirk, N. Y., gift to Young Men's Association, the Brooks homestead, valued at \$150,000.

Brown, George A., Boston, bequests to missionary, Presbyterian, Protestant Episcopal, and education institutions, an aggregate of \$12,550.

Brown, John Nicholas, Providence, R. I., gift to trustees of Public Library building, an additional sum of \$45,000.

Brown, Mrs. Julia Elizabeth, New York city, bequests to American Bible Society, American Tract Society, and St. Luke's Hospital, each \$5,000; and the Women's Hospital, Children's Aid Society, Hospital for Relief of the Ruptured and Crippled, and the Society of St. John'sland, each \$2,500.

Brown, Mrs. Sophia Raymond, New York city, bequests to six Protestant Episcopal institutions in New York and Connecticut, each \$5,000.

Bruce, Catharine Wolfe, New York city, gifts to Columbia University for a lectureship in astronomy, \$5,000; the Yerkes Observatory, a photographic telescope, cost \$7,000; University of Chicago, for its astronomical work, \$1,500 outright and \$15,000 conditionally.

Bruntot, Felix E., Pittsburg, Pa., bequests to the Domestic and Foreign Missionary Society of the Protestant Episcopal Church, \$60,000; Western Pennsylvania Hospital, \$45,000; Western Pennsylvania University, \$30,000; Divinity School of the Protestant Episcopal Church, \$30,000; Ladies' Alle-

gheny Relief Society, \$20,000; American Church Missionary Society, \$10,000; Evangelical Education Society of the Protestant Episcopal Church, \$10,000; St. James's Church, Pittsburg, \$10,000; Young Men's Christian Association of Pittsburg, \$10,000; Homœopathic and Allegheny General Hospitals and the Church Home, each \$5,000; and other institutions, \$7,000—in all, \$237,000.

Buck, Mrs. Charlotte S., Brooklyn, N. Y., bequests to American Missionary Society, Young Men's Christian Association, Young Women's Christian Association, Eye and Ear Hospital, and Church of the Pilgrims, each \$5,000; other institutions, \$8,000; and to twenty institutions the reversion of \$100,000 in equal shares.

Buckminster, W. B., gift to Harvard University for scholarship, \$5,000.

Burnham, Williams and Co., Philadelphia, gift to the University of Pennsylvania the \$10,000 locomotive exhibited at the World's Columbian Exposition in 1893.

Burroughs, S. Mainville, London, England, bequests to the village of Medina, N. Y. (his old home), land for a public park, and to the First Presbyterian Church there, \$25,000.

Burt, Hannah, New York, bequests to the Presbyterian Board of Aid for Colleges and Academies, Presbyterian Board of Home Missions, and Presbyterian Board of Foreign Missions, the reversion of \$15,000 in equal parts.

Carnegie, Andrew, New York and Pittsburg, gifts for the benefit of employees of the Carnegie Steel Company, at Homestead, Pa., an institution combining the features of a library, music hall, and clubhouse, cost \$300,000; to complete the Ginter Memorial building for the Virginia Mechanics' Institute, \$10,000; and to the Town Council of Dumfries, Scotland, for a public library, \$50,000.

Catherine (Drexel), Mother, gift to the Order of Benedictine Sisters, a cut-stone sanitarium and bath house at Cascade, in the Black Hills.

Central Cuban Relief Committee, appointed by President McKinley, gifts to, cash \$200,000, and provisions and supplies of about equal value.

Chicago, University of, Easter gifts from friends, an aggregate of \$320,000, duplicated by John D. Rockefeller under his agreement.

Clark, Mrs. Hannah, Elkhart, Ind., gift to the public, the Clark Homœopathic Hospital and Training School for Surgeons and Nurses; cost, upward of \$15,000.

Clark, Jeremiah, Lowell, Mass., bequests to religious institutions, \$25,000.

Clark, William N., Worcester, Mass., bequests to institutions in Worcester and Rutland, \$5,000.

Codman, Miss Caroline S., Bristol, R. I., bequests to Protestant Episcopal institutions, \$6,500.

Cogley, Mrs. Thomas J., Madison, Ind., gift to Hanover College for a chair of Physics, \$20,000.

Colby, Mrs. Anna S., New York city, bequests to local charitable and Baptist institutions, an aggregate of \$18,000.

Columbia University, New York city, two friends of, gifts for special books for the library, \$5,000 and \$7,500.

Congregational Home Missionary Society, New York city, gift from an unnamed woman of South Framingham, Mass., \$10,000.

Corcoran, Rev. William J., South Boston, bequest, made available by decree of court on contest, to the Carney Hospital, for a convalescents' home at Dedham, all his estate of \$50,000 excepting a small personal legacy.

Croft, Caroline, Boston, bequests for the discovery of a cure for consumption and cancer, \$100,000; and to the Museum of Fine Arts, available on the death of her husband, \$100,000.

Cunningham, Mrs. Jane, Brooklyn, N. Y. (died in 1896), bequest, available by decision of the Supreme Court, to St. Mary's General Hospital, property appraised at \$10,000.

Currier, Moody, Manchester, N. H., bequests to Manchester Public Library, his large private library and \$5,500; for a public art gallery, \$300,000.

Curtis, Albert, Worcester, Mass., bequests to the Women's Board of Missions, \$30,000 and his homestead; Doane College, Crete, Neb., \$15,000; Colorado College, the American College and Education Society, and Worcester Polytechnic Institute, each \$10,000; Berea College, American Board of Foreign Missions, American Home Missionary Society, and Worcester Home for Aged Men, each \$5,000; Worcester City Missionary Society and the American Seamen's Friend Society, each \$3,000; other Worcester institutions, \$6,000; and residue of his estate in equal parts to the American Home Missionary Society, American Board of Foreign Missions, American Missionary Association, and the Worcester Young Men's Christian Association—in all, \$500,000.

Curwin, George R., Rutland, Vt., gift to Essex Institute, Salem, Mass., his collection of chinaware, furniture, oil portraits, glass, and silverware, said to be unequalled in the United States.

Dahlmann, Anthony, Milwaukee, bequests to local institutions, \$6,250.

Davis, J. M., Cincinnati, Ohio, gift to the Society of Friends, University Hall, at Wichita, Kan., which cost \$220,000, and an endowment of \$200,000.

Deering, William, Chicago, Ill., gift to Northwestern University, Evanston, Ill., a building for its preparatory department.

DeForest, Julia D., New York, Paris, and Brussels, bequests to Roman Catholic institutions in those cities, an aggregate of \$35,000, with residue of estate to Archbishop Corrigan for schools and seminaries in New York.

De Merinville, Marquise (formerly MARY G. CALDWELL), gift to the Catholic University of America, for a scholarship, \$5,000; also, with her sister, the Baroness von Zedtwitz (MARY E. B. CALDWELL), a joint gift to the same institution, for a fellowship in divinity, \$10,000.

Dickinson, E. M., Fitchburg, Mass., gift to Northfield, Mass., a library building, dedicated June 9.

Domestic and Foreign Missionary Society of the Protestant Episcopal Church, gift from an aged woman, conditional on keeping her name a secret, cash, Government securities, and city mortgages, aggregating a little over \$40,000.

Downes, Caroline T., Canton, Mass., bequests, to the Children's Hospital of Boston and the New England Hospital for Women and Children, each \$20,000; Massachusetts Infant Asylum and Mission to the Children of the Destitute, each \$10,000; First Congregational Parish, Canton, Young Men's Christian Union, and Perkins Institution for the Blind, each \$5,000; and Canton Public Library, \$2,000.

Drake, Francis Marion, Des Moines, Iowa, gift to Drake University, \$26,000, making a total of \$100,000.

Draper, Eben S. and George A., Hopedale, Mass., joint gift to Hopedale Unitarian Society, a church building; cost, \$75,000.

Drew Theological Seminary, Madison, N. J., gifts from two friends, whose names are withheld, each \$50,000.

Duke, Washington, Durham, N. C., gift to Trinity College in that city, \$100,000, making his total cash gifts to it nearly \$500,000.

Durkee, Joseph H., New York city, bequest to the Metropolitan Museum of Art, a collection of coins; estimated value, \$25,000.

Duryea, S. D., Brooklyn, N. Y., bequests to nine charitable institutions, made available by the executor's sale of property, realizing \$90,000.

Eaton, Robert B., Woburn, Mass., bequest to Trinity Episcopal Church of that city, \$10,000 and the reversion of his residuary estate.

Eddy, Rev. Mary Baker, Boston, gift to the Christian Science Church in that city, property valued at \$50,000.

Edmunds, George F., ex-United States Senator, and wife, Burlington, Vt., gift to the city, to aid the erection of a \$100,000 high-school building, a plot of ground and \$15,000.

Eno, Amos R., New York city, bequests to the Chamber of Commerce of New York, conditionally, \$150,000; Amherst College, \$50,000; Congregational Church, Simsbury, Conn., \$7,000; 12 New York city benevolent institutions, each \$5,000; and New York Juvenile Asylum, \$3,000—in all, \$270,000.

Evans, Harriet B., Philadelphia, Pa., bequests, funds for the erection of a Presbyterian church, and to the Women's Christian Temperance Union, \$5,000.

Faiyel, John J., Deadwood, S. Dak., bequest for a public library at his old home, Theresa, N. Y., \$75,000.

Fay, Patrick, Boston, bequests to local Roman Catholic institutions, an aggregate of \$25,000.

Field, Marshall, Chicago, gift to the University of Chicago, land valued at \$135,000. See ROCKEFELLER, JOHN D.

Flagler, Henry M., gift to the American Red Cross Society, \$5,000.

Flood, Cora Jane, San Francisco, Cal., gift to the University of California, the mansion of her father, the late James C. Flood, with 540 acres of ground, at Menlo Park, value exceeding \$3,000,000.

Fowler, George A., Kansas City, Kan., gift to rebuild the agricultural shops of the State University, \$21,000.

Frick, Henry C., Pittsburg, Pa., gift to the Carnegie Art Gallery in that city, a painting by Dagnan-Bouveret, of Paris, for which he paid \$100,000.

Fuller, Mrs. Caroline, Bayonne, N. J., gift to the Salvation Army, real estate which has been appraised at \$20,000.

Gardener, Prof., of the Groton (Mass.) School, gift to the school, for a new chapel, \$75,000.

Gardner, George A., Boston, Mass., gift to the Massachusetts Institute of Technology, \$20,000.

Gardner, John L., Boston, bequests, available on the death of his widow, to the Boston Museum of Fine Arts and the Boston Lying-in Hospital, each \$100,000; Massachusetts General Hospital, \$50,000; and the Brookline Public Library, \$25,000.

General Hospital, Paterson, N. J., friends of, gift to remove debt, \$20,000.

Gould, Helen Miller, New York city, gifts to the United States Government for war purposes, \$100,000; for the relief of sick and wounded soldiers at Camp Wyckoff, Long Island, N. Y., \$25,000; University of New York, \$60,000; Rutgers College, New Brunswick, N. J., \$10,000; Engineering School of the University of New York, \$10,000; Mount Holyoke College, \$5,000; Manhattan Eye and Ear Hospital, \$5,000; and for the benefit of crippled children from New York, Woody Crest, a home at Tarrytown, N. Y., established and maintained by her. Late in the year Chancellor McCracken announced that Miss Gould was the secret donor of \$250,000 to the University of New York in 1895, for a library building, and that her gift of \$60,000 in 1898 was to defray the additional cost.

Graham, Mrs. John, New York, gift to the General Hospital, Paterson, N. J., \$8,000.

Graham, John S., Philadelphia, bequests to local charities, the reversion of \$100,000.

Gray, Mercy M., Oakland, Cal., bequests to religious organizations, a total of \$200,000.

Green, Mrs. Paul, San Francisco, gift for Golden Gate Park, a memorial arch; cost, \$30,000.

Greenleaf, Rev. Joseph, Middletown, N. Y., bequests to Presbyterian benevolent and mission boards, \$6,000.

Grey, Richard C., Allegheny City, Pa., bequests to the Allegheny General Hospital, \$20,000; to various charitable institutions, a total of \$25,000.

Gridley, Emeline, Amenia, N. Y., bequests to Presbyterian institutions, a total of \$14,500.

Haddock, Catherine L., Philadelphia, Pa., bequests for an orphanage, her house and endowment of \$125,000; other charitable institutions in the State and city, an aggregate of \$46,000.

Hadsell, Orlando D., Chicago, Ill., bequests to the First Methodist Church, a trust fund of \$50,000, the interest of which is to be expended annually for ninety-nine years in feeding and clothing 100 waifs.

Hale, William E., Chicago, Ill., bequests to trustees for such charitable institutions as they may select, with a conditional reversion to Beloit College, \$300,000.

Halsey, Cornelia B., Newark, N. J., gift to the local Young Men's Christian Association, \$12,000.

Hamilton, John P., Stamford, Conn., bequests to the Boards of Home and Foreign Missions of the Presbyterian Church and the Board for the Relief of Disabled Ministers and their Widows and Children of the same Church, each \$5,000; American Tract Society, Seamen's Friend Society, and American Female Guardian Society, all of New York, each \$2,000; and seven other institutions in New York and Connecticut, each \$1,000.

Hamline University, St. Paul, Minn., friends of, special debt gifts, \$16,000.

Harrison, Catherine, Philadelphia, Pa., bequests to the Home for Incurables, \$10,000; other charities, \$4,000.

Haskell, Mrs. Caroline E., Chicago, Ill., gift of funds for a dormitory for boys, at Morgan Park Academy.

Hazard, Rowland, Peacedale, R. I., bequest to Brown University, \$100,000.

Hearst, Mrs. Phoebe, San Francisco, gift to San Francisco Polyclinic, \$5,000.

Hegeman, Mrs. B. A., Sr., North Plainfield, N. J., bequests to local and general institutions of the Reformed Church, \$10,000; other benevolent institutions, \$4,500.

Hemenway, Mrs. Augustus, Boston, Mass., gift to Radcliffe College, a gymnasium building.

Hernsheim, Simon, family of, New Orleans, gift to Fisk Free and Public Library, \$50,000.

Hill, James J., President of the Great Northern Railroad, gift to Hamline University, St. Paul, Minn., \$20,000.

Hoffman, Jacob, Philadelphia, bequests to the Home for Incurables, the reversion of \$10,000 and conditionally \$12,000, and to the Penn Asylum for Indigent Widows and Single Women, conditionally, \$6,000.

Hovey, Marion, Boston, gift to the city of Gloucester, for best high-school entrance examinations for the Institute of Technology, \$5,000.

Hubbard, Mrs. Gardiner Green, Washington, D. C., gift to the United States Government, the large collection of etchings and engravings gathered by her late husband, and \$20,000 for its annual increase.

Hunnewell, Horatio Hollis, Watertown, Mass., gift to Watertown Free Public Library, a large addition to the main building.

Hunt, Albert S., D. D., Brooklyn, N. Y., bequests to Wesleyan University for a library fund, \$30,000; American Bible Society, \$10,000; Methodist Gen-

eral Hospital, Brooklyn, \$5,000; and Methodist Episcopal Missionary Society and Brooklyn Methodist Church Home, each \$1,000.

Huntington, Mrs. Collis P., New York, gift to the Normal and Industrial Institute, Tuskegee, Ala., for a girls' dormitory, \$10,000.

James, Julia Bradford Huntington, Boston, bequests to six benevolent institutions, each \$5,000, and to the Museum of Fine Arts and the Massachusetts Institute of Technology, nearly all the residue of her estate, \$542,069.

Jackson, John Mason, Chicago, Ill., bequest to trustees for division in 1904 among the American Baptist Missionary Union, American Baptist Home Missionary Society, American Baptist Publication Society, and the University of Chicago, half of the excess of his estate over \$20,000 in equal parts. At his death the estate was valued at \$186,000.

Jennings, J. Hennen, gift to Lawrence Scientific School of Harvard for a new scholarship, \$10,000.

Johnston, Mrs. Adelia Field, dean of the woman's department of Oberlin College, friends of, gifts to found a professorship, always to be filled by a woman, \$50,000.

Joor, Mrs. Elizabeth, Lawrence, Mass., gift to the corporation of Forest Glade Cemetery, Somersworth, N. H., a memorial chapel; cost, \$10,000.

Jordan, W. S., Brookline, Mass., bequests to the American Baptist Missionary Union and the American Board of Commissioners for Foreign Missions, each \$5,000; Missionary Society of the Methodist Episcopal Church, Boston, \$2,500; and other institutions, an aggregate of \$6,700.

Joy, W. D., Boston, Mass., bequest to Tufts College, \$80,000.

Juilliard, Mrs. Helen C., New York city, gift to the trustees of St. John's Guild for a new floating hospital for sick children, \$32,000.

Keinath, William, Philadelphia, Pa., bequests to the Fuel-Saving Society, \$50,000; the Home for Incurables, \$10,000; other local institutions, \$9,800; and to his native village of Winterlingen, Wurtemberg, an acre of ground and \$35,000, principally for a home for the sick poor.

Kelly, Mrs. Elizabeth, Chicago, Ill., gift to the University of Chicago for a dormitory for women, \$75,000.

Kent, S. A., Suffield, Conn., gift to the town, a library building, cost \$25,000.

Kimball, Mrs. David P., Boston, Mass., gift to Radcliffe College, for a hall of residence, \$50,000.

Kingsley, Chester Ward, Boston, gifts to Worcester Academy, Colby University, Newton Theological Institute, American Baptist Missionary Union, American Baptist Publication Society, and the American Baptist Home Mission Society, each \$25,000.

Klauke, J. H., Worcester, Ohio, gift to the University of Worcester, his residence, that cost \$30,000, and cash \$40,000.

Knowlton, Edwin F., West Upton, Mass., bequests to the village of West Upton for a public library, \$40,000; the Unitarian Church, \$5,000; and the town of West Upton, conditionally, for public schools, \$50,000, and for relief of its poor, \$15,000.

Lambert, John, Joliet, Ill., gifts to the public library, \$7,000; and each of two hospitals, \$1,500.

Langles, Mrs. J. and Miss Angelle, mother and daughter, victims of the "Bourgogne" disaster, bequests to local institutions direct, \$22,000. The mother left the residue of her large estate to found a memorial hospital for women and children in New Orleans, and the daughter left the residue of her independent fortune for the support of this hospital.

Leahy, David T., Brooklyn, N. Y., bequests to the Catholic University in Washington, D. C., St. Mary's General Hospital, Little Sisters of the Poor, and St. Vincent de Paul Society, each \$10,000; St. Mary's Maternity Hospital and Nursery, St. John's Orphan Asylum, St. Joseph's Home for Girls, and Convent of Mercy, each \$7,500; Home for Consumptives, Bureau of Charities, St. John's Guild, and Newsboys' Home, each \$5,000; and two other institutions, each \$2,500.

Lelter, Mrs. L. Z., Chicago, Ill., gift to the United States Government for an army hospital, the Chickamauga Park Hotel, which she bought for \$10,000.

Lipton, Sir Thomas, London, England, the challenger for the "America's" cup, gift for the relief of sick and wounded American soldiers, \$10,000.

Little, Henry S., Trenton, N. J., gift to Princeton University for a dormitory, \$100,000.

Livingston, Henry M., Saratoga Springs, N. Y., conditional gift to the Young Men's Christian Association for a building, \$25,000.

Logan, Frank G., Chicago, gift to the Chicago Art Institute for a library building, \$35,000.

Low, Seth, President of Columbia University, gift for the new library building, the excess of cost of \$100,000 beyond his original gift of \$1,000,000.

Loubat, Joseph F., New York city, gift to Columbia University, for the endowment of its library, deeds to property on Broadway of an estimated value of \$1,100,000, subjected to an annuity of \$60,000 during the donor's life.

Luddington, Charles H., New York city, gift to the Ladies' Library Association of Lyme, Conn., a library building.

Lyman, Susan B., Brookline, Mass., bequests to Harvard University to aid needy students, \$5,000; Perkins Institution for the Blind, \$5,000; State Normal School, Framingham, \$5,000; Home for Orphan Children, Boston, \$5,000; Carney Hospital, \$5,000; and Warren Street Chapel, Boston, \$1,000.

McAlpin, David H., New York, gift to the Brick Presbyterian Church, a building for a youths' training school and clubhouse; cost, \$16,500.

Macy, Mrs. Josiah, New York city, bequests to the New York Teachers' College (for which she had built the Macy Manual Training School at a cost of \$250,000), \$200,000 outright and contingent interests in her estate; and to the Presbyterian Hospital, \$5,000.

Marsh, Prof. Othniel C., Yale University, gift to the university, his six scientific collections. They are the result of thirty years' labor, and constitute the most important gift to natural science that Yale has received. For six specimens alone \$100,000 was refused.

Marshall, Louis, New York, gift toward a proposed fund of \$1,000,000 for Hebrew educational purposes in New York, \$5,000.

Mast, P. P., Springfield, Ohio, bequests to Wesleyan College, \$375,000; other institutions, \$105,000.

Mead, Solomon, Greenwich, Conn., bequests to missionary, church, and college organizations, an aggregate of 90 out of 250 shares in which his estate is to be divided, each share having an estimated value of \$3,000 to \$5,000.

Mills, Darius Ogden, New York city, gift to the National Red Cross Relief Committee, \$5,000.

Mills, Mrs. Harriet B., New York city, bequests to Grace Episcopal Church, \$5,000; and to the Sisterhood of St. Mary, at Peekskill, \$2,500.

Moore, Andrew M., Philadelphia, Pa., bequest, available on the death of his three sons, for "founding and maintaining such charitable or educational institution or establishment in my name as they (the trustees) desire or may deem wise or proper,"

the principal of his estate, estimated at about \$5,000,000.

Morgan, J. Pierrepont, New York, gift to Barnard College, New York, \$10,000.

Morris, Daniel, Atlantic City, N. J., bequests to Bishop McFaul, of Trenton, N. J., for St. Michael's Orphan Asylum, at Hopewell, to which he had given \$50,000 in life, \$25,000; for the founding of a home for the aged, \$40,000; St. Joseph's Home at Beverly, \$10,000; and St. Mary's Orphan Asylum, New Brunswick, St. Francis's Hospital, Trenton, and for a diocesan scholarship, each \$5,000. He also bequeathed \$32,000 to be divided among nine Roman Catholic hospitals and orphan asylums in Philadelphia, and \$10,000 to the Little Sisters of the Poor of that city. Excepting \$13,000 to relatives, he left the residue of his estate to the above-named institutions, half to the Hopewell Orphan Asylum and the Home for the Aged, and the remainder to the others, making his total benefactions \$487,000.

Morse, Elijah A., Canton, Mass., bequests to eight church, missionary, educational, and charitable organizations, each \$5,000.

Moss, Lucien, Philadelphia, gift to charities, \$200,000.

Mount Hermon School and Normal Seminary, Northfield, Mass., anonymous friend of, gift for equal division, \$100,000.

Munger, Albert A., Chicago, bequests to the Art Institute, his collection of paintings, valued at \$300,000; and Women's and Children's Hospital, Foundling's Home, Home for Incurables, and Half-Orphans' Asylum, each \$50,000—in all, \$500,000.

Neafie, Jacob G., Philadelphia, Pa., bequests to the Hahnemann Hospital, \$35,000; Baptist Orphanage, \$30,000; Baptist Home, \$20,000; Fourth Baptist Church, \$20,000; Home for Incurables, \$15,000; Asylum for Indigent Women, \$15,000; and Protestant Episcopal Hospital, \$10,000.

Nichols, J. Howard, Boston, gift to the town of Kingston, N. H., a library building.

Noble, Mrs. William Belden, Washington, D. C., gift to Harvard University for a religious lectureship, \$20,000.

Osborne, Mrs. Miriam, New York city, bequests made available by decision of the court on proceedings for a partition of her real estate, for the establishment of the Miriam Osborne Memorial Home, the bulk of her estate of several millions, and to Yale University a quarter of the residue.

Palbot, Callista M., New York, gifts to charitable institutions aggregating \$300,000.

Palmer, Mrs. T. W., Detroit, Mich., gift to the city, a fountain on the "Campus Martius," costing \$15,000.

Paton, Mrs. Annie S., New York city, bequests to Princeton University and the Manhattan Eye and Ear Hospital, New York, the reversion of \$100,000 and \$50,000 respectively.

Payne, Oliver H., New York, gift to Cornell University, for a Cornell Medical College in New York city, \$500,000 for the building, and \$1,000,000 for endowment.

Parsons, Daniel Kimball, M. D., Chicago, Ill., gifts to Beloit College, Beloit, Wis., on the raising of \$150,000 by its friends, \$50,000, and to Mount Holyoke College, on similar terms, a like amount.

Perry, John, gift for a new building for the Kansas City Boy Orphans' Home at Westport, \$25,000.

Pfalzer, John, Brooklyn, bequest to St. Leonard's Roman Catholic Church, \$20,000.

Phelan, James D., San Francisco, Cal., gift to the city, a library and recreation building, with books, for the almshouse; cost, \$10,000.

Phillips Andover Academy, Friends of, gifts toward a gymnasium, \$36,000.

Pillsbury, George Alfred, Minneapolis, Minn., bequests to Pillsbury Academy, \$250,000; various Baptist institutions, an aggregate of \$25,000; Northwestern Hospital for Women, \$5,000; and New Hampshire Centennial Home for Aged Women, \$5,000. The will requests that his widow shall bequeath \$20,000 to Pillsbury Academy and \$5,000 to the Hospital Association of Concord, N. H.

Plummer, Jerome, Washington, Pa., bequest, available on the death of his widow, his entire estate of \$75,000, to be used in promoting the temperance cause in Washington County.

Porter, Ann E., Newburyport, Mass., bequests to the public libraries of Newburyport and Springfield, Vt., \$1,500 and \$1,000 respectively; Whitfield Church, the poor of St. Paul's Church, and the Girls' Friendly Society, each \$1,200; and St. Mark's Church, Springfield, \$500.

Princeton University, Alumni of, gifts toward the founding of a chair of Philosophy, \$50,000; Class of '88, gifts for a political science library alcove, \$15,000.

Randall Charities Corporation, Monson, Mass., donation to the University of Virginia, \$20,000.

Ransom, Susan, Boston, bequests to the Cambridge Home for Aged People, \$50,000; Home for Aged Women, Boston, \$50,000; Cambridge Hospital, Avon Place Home, and Home for Aged Men, Boston, each \$20,000; and Massachusetts Society for the Prevention of Cruelty to Children, Roxbury Home for Children and Aged Women, and Winchester Home for Aged Women, Charlestown, each \$10,000.

Robertson, Dr. Thomas Seton, New York, bequest to the medical department of the University of Vermont, for microscope prizes, \$5,000.

Rockefeller, John D., New York city, gifts to the University of Chicago, duplicating the gift of Martin A. Ryerson (*q. v.*), \$34,000 in cash, and under agreement with Marshall Field (*q. v.*) \$200,000 for the erection of a gymnasium and equipment of the athletic grounds.

Rogers, Elizabeth, Lowell, Mass., bequest to the Rogers Hall School for Girls, all her property, estimated at \$100,000, excepting a few small personal bequests.

Rogers, Samuel B., South Sudbury, Mass., bequests to the Memorial Congregational Church, \$5,000, and to other Congregational societies, \$2,700.

Roosevelt Hospital, New York city, gift from a friend whose name is withheld, for maintenance of twelve new beds for children, \$50,000.

Ross, Julia Ann, Washington, D. C., bequests to Roman Catholic institutions, the reversion of an estate of \$15,000.

Rouss, Charles Broadway, New York city, gift to the University of Virginia for a physical laboratory building, \$10,000.

Russell, Mrs. Hope Brown, Providence, R. I., gift, for a residence for the Protestant Episcopal bishop of Rhode Island, an attractive estate and endowment of \$50,000.

Ryerson, Martin A., Chicago, gift to the University of Chicago, a tract of land valued at \$34,000. See ROCKEFELLER, JOHN D.

St. Peter's Episcopal Church, Port Chester, N. Y., gift from a friend, twelve windows; cost, \$5,000.

Salomon, William, New York, gift toward a proposed fund of \$1,000,000 for Hebrew educational purposes in New York, \$10,000.

Sausser, William, Hannibal, Mo., (died in 1892), bequest, made available by decision of court, to Westminster College, all his estate of \$200,000.

Schermerhorn, Frederick Augustus, New York city, gift to the United States Government for the auxiliary navy, his steel steam yacht "Free Lance."

Schiff, Jacob H., New York city, gifts to Columbia College for a fellowship in political economy, \$15,000; to the New York Public Library for scientific works, \$10,000; and to the fund of \$1,000,000 for Hebrew educational purposes in New York, \$25,000. He also purchased ground and assumed the cost of erecting a building for the Young Men's Hebrew Association of New York; total cost, \$150,000.

Scott, Chief-Justice John, Bloomington, Ill., bequest to the city for a public hospital, available on the death of his heirs, the principal of his estate, estimated at \$2,000,000.

Sears, J. Montgomery, Boston, gift to the United States Government, for a naval patrol boat, his pleasure steam yacht "Varuna."

Sheppard, Isaac A., Philadelphia, Pa., bequests to religious and charitable institutions, \$16,000, and for medals for graduates of manual-training schools, \$1,500.

Shipman, Daniel B., Chicago, Ill., gift to the Chicago Home for Incurables, \$40,000.

Simmons, Sarah Billings, Monmouth, Ill., bequest to the Monmouth Library Association for a building, real estate valued at \$40,000.

Sloane, Mrs. William D., New York, gift to the Protestant Episcopal Home in Denver, Col., \$40,000.

Smith, Eliza E., Lancaster, Pa., gift to the city for a public library, her city residence, valued at \$25,000. She agreed to endow the library, supply books, and erect an annex for the general library, making an immediate outlay of at least \$75,000.

Smith, George Plumer, Philadelphia, Pa., bequests to the Protestant Orphan Asylum, Allegheny, \$25,000; Historical Society of Pennsylvania, \$25,000; New England Genealogical and Historical Society, Plumer Hall, at Salem, Mass., and three charitable institutions in Philadelphia, each \$10,000; and the Pennsylvania Hospital, Philadelphia, the residue of his estate, which is expected to realize several hundred thousand dollars.

Smith College, Northampton, Mass., anonymous friend of, gift for an academic hall, \$50,000.

Snyder, David L., Springfield, Mass., bequest to the city, \$200,000 in United States Government bonds, the interest to be used in beautifying Snyder Park. The gift of the park by John and David L. Snyder represented a value of \$250,000. Two years ago John bequeathed the city \$100,000 for the care of the park, and David's bequest makes the total given by the Snyder brothers at least \$550,000.

Spiegelberg, Solomon J., New York city, bequests to Hebrew congregations and benevolent institutions in Germany and New York city, a total of \$8,500.

Stanford, Mrs. Leland, San Francisco, gift to Stanford University for a school of history, economics, and social science, her mansion on Nob Hill.

Stearns, Frederick, Detroit, gift to the University of Michigan, a collection of musical instruments numbering nearly 1,000 pieces, which originally cost him \$25,000.

Stern, Louis, New York, gift toward a proposed fund of \$1,000,000 for Hebrew educational purposes in New York, \$25,000.

Stevenson, James, Brookline, Mass., bequest to Harvard University for two medical scholarships, \$10,000.

Stillman, James, New York, gift to Harvard University for an infirmary for sick students, \$50,000. He also agreed to give \$2,500 annually for four years toward supporting it.

Stout, James H., Menomonie, Wis., gift to the city, a manual-training-school building, cost \$125,000, and a public high-school building, cost \$55,000, to replace buildings formerly erected by him and destroyed by fire.

Straus, Isidor, New York, gift toward a proposed fund of \$1,000,000 for Hebrew educational purposes in New York, \$10,000.

Sunday-school Children of the Protestant Episcopal Church, gifts to the Dr. William S. Langford Memorial fund, \$81,761.

Sutro, Adolph, San Francisco, Cal., bequest to Vassar College, \$10,000. He left a very large estate, and by a trust clause in his will the San Miguel and Cliff House ranches are directed to be managed for ten years, and then to be conveyed to trustees, who are required to hold the property until after the death of the Sutro children. The trustees are then to sell the property and apply the funds so realized for such charities, institutions of learning and science, and for premiums to be set apart for distinguished scholarships and scientific discovery and inventions as shall be directed by the executors. It is expressly provided that no priest, preacher, or rabbi is to have aught to do with the charitable bequests.

Thayer, Edward C., Keene, N. H., gift to Brown University, Providence, R. I., for free scholarships, \$6,500.

Thomas, Jacob C., Wheeling, W. Va., bequests to benevolent institutions, \$13,000.

Thomas, Josiah B., Peabody, Mass., bequests to trustees for a public hospital, \$50,000; for other purposes, \$10,000.

Thompson, Alice, Ballston Spa, N. Y., bequest to Christ Episcopal Church of that place, \$10,000.

Thompson, James P., Brooklyn, N. Y., bequests to the New York Skin and Cancer Hospital, \$5,000; Society for promoting the Gospel among Seamen, \$1,000; and Mariners' Family Asylum, \$1,000.

Thornton, Charles C. G., Gloucester, Mass., bequests to church and missionary societies in Maine and Massachusetts, \$4,000; and to Thornton Academy, Saco, Me., for a school of technology, the reversion of \$50,000.

Thrall, Mrs. S. Maretta, Middletown, N. Y. (see GIFTS AND BEQUESTS in "Annual Cyclopædia" for 1897). Judge Hirschberg decided her bequest to the hospital invalid, and approved the bequest for a free library (\$30,000).

Trauger, Lewis, Greensburg, Pa., bequests to Lutheran institutions, \$5,500.

Tuckerman, Joseph, Newport, R. I., bequests to two local charitable institutions, each \$7,000.

Tome, Jacob, Port Deposit, Md., bequest to the Jacob Tome Institute, founded by him and endowed with \$2,000,000, the residue of his estate, calculated to yield \$2,000,000.

Tomson, Peter C., Philadelphia, Pa., bequest for the care of the sick and worn-out employees of the firm of which he was a member so long as it continues under its present name, the income of his residuary estate.

University of New York, gifts from friends for medical college, \$100,000.

Vanderbilt, Cornelius, New York, gifts to the New York Botanical Garden, the entire expense of an exploring and botanical expedition to Puerto Rico.

Vandevanter, Cornelia Stryker, Plainfield, N. J., bequests to Hope Chapel, Plainfield, and the Presbyterian Church, Bound Brook, each \$5,000; Muhlenberg Hospital, Plainfield, \$3,000; and the Domestic and Foreign Missionary Societies of the Presbyterian Church, each \$2,000.

Vanwickie, A. S., Hazleton, Pa., bequests to Princeton University, \$45,000; Brown University, \$45,000; and Lafayette College, \$30,000.

Van Wormer, Asa, Cincinnati, gift to the University of Cincinnati for a library building, \$56,000.

Wallace, William Clay, Newark, N. J., daughters, joint gift to Princeton University for scholarships, \$5,000.

Warburg, Felix, New York, gift toward a proposed fund of \$1,000,000 for Hebrew educational purposes in New York, \$5,000.

Waring, George E., Jr., New York, friends of the late, gifts to a fund for the benefit of his widow and daughter, \$100,000. The beneficiaries have the income during life, and at their death the principal goes to Columbia University to found the Waring Municipal chair.

Warner, Redwood F., Philadelphia, bequests to the School of Design for Women, \$10,000; Germantown Dispensary and Hospital, \$5,000.

Warren, Henry Clark, Cambridge, bequest to Harvard University, all his real estate in Cambridge and all his securities, \$40,000 from the latter to be applied to specific purposes in the university; estimated value of bequest, nearly \$1,000,000.

Warren, Nathan B., Troy, N. Y., bequests to the Protestant Episcopal Church of the Holy Cross of that city, \$240,000, and to Trinity College, Hartford, Conn., \$10,000.

Watson, Mrs. Eliza V. G., Detroit, bequests to local institutions, \$7,500.

Webb, W. Seward, M. D., New York city, gift for the sick and wounded of the First Vermont Infantry, \$5,000.

Webb, Mrs. Dr. W. Seward, gift to the Protestant Episcopal Diocese of Vermont, a fully equipped parish house at Shelburne Farms.

Webber, Frances E., Boston, bequest to Bates College, \$5,000.

Webster, Joseph, Carroll, Iowa, bequest to Western College, Toledo, Iowa, \$30,000.

Wells, Mrs. Ann P., Boston, bequests to the American Unitarian Association, \$10,000; Massachusetts Homœopathic Hospital for two free beds, \$10,000; Harvard University for a new scholarship, \$10,000; Warren Street Chapel, Home for Aged Colored Women, Women's Educational and Industrial Union, and Home for Aged Couples, each \$5,000; Home for Aged Men, Home for Aged Women, Massachusetts Society, and District Nursing Association, each \$3,000; and the Perkins Institution for the Blind and the Industrial School for Crippled and Deformed Children, each \$2,000.

Wells, David Ames, Norwich, Conn., bequests to the public library of Springfield, Mass., his large private library, and, conditionally, to the Springfield Library, Harvard University, and Williams College, his residuary estate in equal parts.

Wellesley College, Wellesley, Mass., gift from a friend, a large and costly telescope, and a pledge to erect a suitable building for it.

Wendell, Jacob, New York city, bequests to Harvard University, \$5,000; Home for Old Men and Aged Couples and Home for Incurables, both in New York, each \$1,000; and Portsmouth Athenæum, for books, \$500.

Wentworth, Arloch, Boston, gifts to Dover, N. H., Home for the Aged and to the Children's Home Association, \$5,000.

Wetmore, Mrs. Fanny C., Farrington, Conn., bequests of her husband made available by her death, to the Farrington public library \$22,000 and the American Missionary Association \$7,000.

Whitewright, William, New York city, bequest to the Presbyterian Hospital, \$50,000.

Widener, Peter A. B., Philadelphia, Pa., gift to the public library, a collection of 500 books, containing many choice specimens of *incunabula* that were sought by European libraries, for which he paid \$28,000. See GIFTS AND BEQUESTS in "Annual Cyclopædia" for 1897.

Wilder, Charles T., Wellesley, Mass., bequests, available by the distribution of his residuary estate, to Mount Holyoke College, \$100,000, and Wellesley

College, \$50,000. See GIFTS AND BEQUESTS in "Annual Cyclopædia" for 1897.

Williams, Augusta M., Boston, bequest to Hobart College, Geneva, N. Y., \$6,000.

Williams College, Williamstown, Mass., gift to library fund in memory of Josiah W. Wheeler, of New York, \$5,000.

Winants, Mrs. Amanda E., Bayonne, N. J., gift to the Bayonne Hospital and Dispensary, \$10,000.

Winchester, Henry K., Marlboro, Mass., bequests to Unity Church, Santa Barbara, Cal., \$5,000; to other institutions, \$12,000.

Wood, Henry, Boston, Mass., gift to the town of Barre, a high-school building, supplementing gifts of the public library, a chapel, and a society building.

Wood, Samuel, Northboro, Mass., bequests to local institutions, \$5,000.

Woodward, Mrs. Sarah, Saratoga, Cal., gift to the American University, at Washington, D. C., property in Seattle, Wash., valued at more than \$150,000.

Wright, Charles B., Philadelphia, Pa., bequest to the Anna Wright Seminary, Tacoma, Wash., for maintenance or rebuilding, \$50,000.

Yale University, New Haven, **Students of**, gift to the United States Government for the auxiliary cruiser "Yale," two rapid-fire Maxim guns and a full set of ship's colors, cost \$6,000, for which more than \$10,000 was subscribed; **Young Men's Christian Association of**, gift to the university, a new mission building, cost \$6,000.

GLADSTONE, WILLIAM EWART, an English statesman, author, orator, and scholar, born in Rodney Street, Liverpool, Dec. 29, 1809; died at Hawarden Castle, Flintshire, North Wales, May 19, 1898. Although English by birth, he was both on his father's and on his mother's side of pure Scottish blood his father being Lowland Scotch, his mother of Highland descent. Gladstone himself said, "I am purely and absolutely Scotch in every drop of my veins." The original members of the family were of knightly rank, but the holder of the estate in the early eighteenth century, from the impoverishment of the land and other causes, was driven into trade. The last of the Gladstones was a maltster at Perth. Mr. Gladstone's grandfather was a corn merchant at Leith, and his son, John Gladstone (the father of William Ewart Gladstone), became clerk to a Liverpool merchant, and ultimately became himself a millionaire merchant. He acquired vast estates in Demerara, cultivated by slave labor. Grown rich and influential, John Gladstone (now Sir John), became deeply interested in political life, and for several years held a seat in Parliament, where he was an ardent supporter of Canning. On one occasion, when Ewart Gladstone was only three years old, Canning made an election speech from the window of John Gladstone's house, and the noisy enthusiasm of the crowd greatly impressed the boy. John Gladstone was stern and inflexible, but had a keen perception and acute business instincts. He encouraged his sons to practice the art of debate. Nothing was taken for granted between John Gladstone and his sons; all discussions were in perfect good humor, but proof of everything was required. The future Prime Minister was the third son of John Gladstone. His mother was a daughter of Provost Robertson, of Dingwall, and was notable for her sweetness of disposition. She cultivated with assiduous care the already deep religious impressions that were implanted in the early life of the statesman.

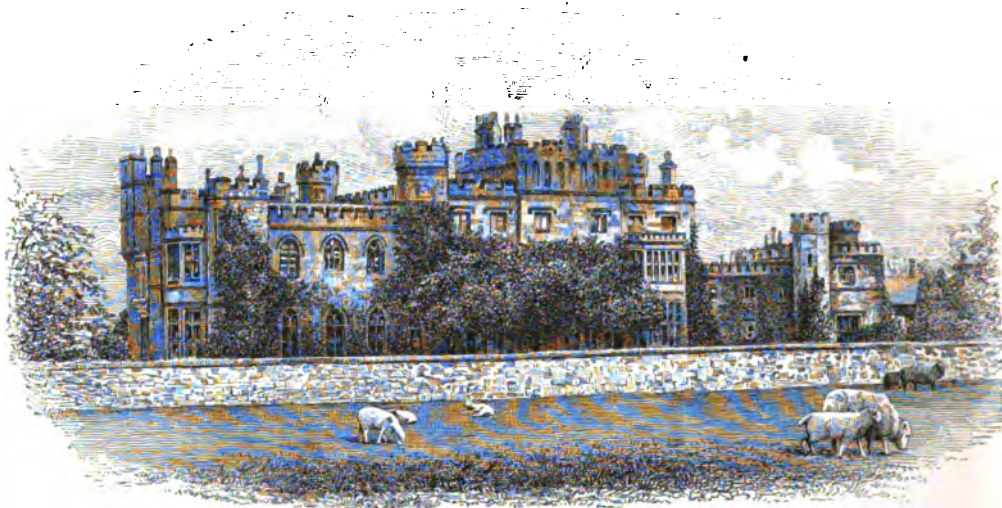
Young Gladstone began his education by a course of private instruction at the vicarage of Seaforth, adjacent to his home. Here one of his fellow-pupils was Stanley, afterward Dean Stanley, and a

warm friendship grew up between the two boys, which continued until the end of Stanley's life. At the age of eleven Gladstone was sent to Eton, the preparatory school for Oxford University. The Eton student life of that time must have given a rude shock to the tender susceptibilities of a youth brought up as Gladstone had been, for the older pupils, reflecting the example of the social spirit of the time, engaged in horse racing, betting, cock-fighting, prize fighting, and drinking, on which a corrupt and profligate court and monarch had falsely stamped the seal of good breeding. Even the tutors were not exempt from the insidious infection, and we learn that the tutor of Gladstone was addicted to excessive drinking and gambling. Eton had also an unenviable reputation for flogging, and one of the masters, Dr. John Keate, proudly boasted that he had "flogged the whole bench of bishops." Of young Gladstone at this period we are told that he was a good-looking, rather delicate youth, not much given to the athletic sports in vogue, and only occasionally participating in cricket, hockey, and sculling. He was not really delicate, but on the contrary was robust, and the natural pallor of his face made all the more conspicuous and impressive the marvelous brilliance of his dark eyes. Gladstone had a fine presence, a lofty forehead, and luxurious black hair. Sir Roderick Murchison said he was "the prettiest boy that ever went to Eton." Gladstone, thanks to his home training, remained unaffected by his surroundings. He was untiring in application to his studies, and acquired considerable classical knowledge. He contracted at Eton some happy and life-long friendships. Arthur Henry Hallam, whose untimely death stirred Tennyson's soul to the production of "In Memoriam," with Selwyn, afterward elected bishop, and Kinglake, author of "The Crimean War," were contemporaries and close friends of his at Eton. He joined the Eton Society and introduced Kinglake to that assembly of aristocratic young Tories. Current politics were forbidden, but political opinion disclosed itself under the thin drapery of historic or academic questions. Gladstone, during the latter part of his six years' stay at Eton, took an active part in the editorship of the "Eton Miscellany," and was one of the most prolific contributors. After leaving Eton, where he attained a high reputation, he studied for some time under a private tutor, and on Oct. 28, 1828, was entered and went into residence at Christ Church, Oxford. Christ Church was, and is, the most exclusive and select of all the Oxford colleges. It used to be the custom for sons of princely and ducal houses at this college to wear a distinctive "tuft" in their college caps, and as the society of these students was greatly sought, the word "tuft-hunter" has passed into the language as indicating a man who toadies to rank or wealth. The choice of Christ Church was an ambitious one, but John Gladstone had confidence in his son's ability, and, though parsimonious, he gave his son a liberal college allowance. The choice was also prophetic, for, not including Mr. Gladstone himself, Christ Church College has turned out six prime ministers—Lord Liverpool, George Canning, Sir Robert Peel, Lord Derby, and Lords Salisbury and Rosebery. The life of Mr. Gladstone at Oxford was very much on the same lines as at Eton—constant study, wide reading, and a keen interest in college matters, its advanced thought and higher life.

During his second term at Oxford he was elected to the Oxford Union Debating Society, and a speech at one of these gatherings made by Gladstone and heard by Lord Lincoln, a college friend, and repeated later by Lord Lincoln to his father, the Duke of Newcastle, convinced the duke that Glad-

stone was a suitable man to represent the town of Newark in Parliament, and help with his oratory to stem the tide of reform. Gladstone, at the sessions of the Union, showed the strongest opposition to political reform, and was instrumental in causing the club to pass votes of censure on Lord Gray for the passage of the reform bill, and on the Duke of Wellington for Catholic emancipation. Justin McCarthy says, speaking of Gladstone at this time: "His mind was a mirror of Oxford opinion, veneration for the past, a romantic sense of reverence for the ancient institutions of the country; yet a mind opened to the inevitable tendencies of the future." Gladstone while at Oxford founded the Oxford Essay Club, which became familiar to its members as the "W. E. G.," so named after the initials of Gladstone's name. The object of this intellectual association was the reading of essays alternately in the rooms of each member, subject to the criticism of

unrest harassed the country. The Tories were filled with extravagant fears, the party of progress aflame with extravagant hopes. Gladstone, in his first electoral address at the general election of 1833, felt it a duty to watch and resist that growing desire for change which threatened to produce, "along with partial good, a melancholy preponderance of mischief." The reform bill of 1832 first introduced the great middle-class cities and towns to the right of representation in Parliament and gave them the right of suffrage. The bill struck sharply at the privileges of the territorial magnates, but was really very limited, and left the vast mass of the working population outside the pale of constitutional representation. The Duke of Wellington declared the reform bill to be "a revolution by course of law." Gladstone was returned for Newark, and on the opening of the reformed Parliament on Jan. 20, 1833, took his seat for the first time in the house,



HAWARDEN CASTLE, MR. GLADSTONE'S RESIDENCE.

the other members. As an example of the trend of Gladstone's mind, he chose for one subject a paper "to explain and define the belief of Socrates in immortality." At Oxford he widely extended his classic knowledge, which was, it has been said, never pedantic, and was not open to the charge of having missed the beauties of the ancient authors by parsing. He now began to take an absorbing interest in Greek life of the Homeric era, on which he was probably unequalled as an accurate authority. He was a strong and firmly convinced believer in the actual personality of the blind poet, and scouted the idea of the *Iliad* being a sagalike or romaunt string of separate pearls. It is said that strongly expressed contrary views by Mr. Disraeli on his first meeting with Gladstone on this, to the latter vital question, initiated the rancor and ill-feeling which characterized the private and political connection of two men, who, both great in their respective spheres, were in temperament and ambitions antipodal. In December, 1831, Gladstone secured the highest collegiate honor conferred by the university, a double-first, or first in each, the classical, mathematical, and theological schools.

While taking a needed rest in Italy he was recalled by an earnest request from the Duke of Newcastle to represent the town of Newark, which was what was then called a "pocket borough," or one whose voters were by strong ties of interest almost bound to vote for the duke's nominee. The first reform bill had become law, and political and social

being then twenty-three years of age. He was strikingly handsome, his face pallid, almost bloodless, his eyes more radiant than in youth, his voice strong, clear, flexible, and sweet, heard without strain in any part of the house. As he appeared under the auspices of the ducal house of Newcastle, with the added prestige of his Oxford achievements and his physical qualifications for oratorical success, his maiden speech was eagerly anticipated. He made no attempt to dazzle the house by his brilliance or impress it with his scholarship; the maiden speech was simple and to the point, and produced a good impression. Great orators as both Sheridan and Disraeli were, their first attempts to address the house were ghastly failures; Disraeli's confused declaration as he broke down and took his seat, "The time will come when you shall hear me," being both historic and prophetic.

The first session of the new Parliament was largely devoted to the question of slavery in the colonies, and Gladstone defended his father, a large slave owner, against an attack made upon him in the house. The question of the Irish state Church and the steps advisable to repress agrarian disturbances in that country were also discussed, and Gladstone first made acquaintance with the "Irish specter" which was to haunt him through his long and arduous parliamentary career. The great Irish orator O'Connell was very friendly and helpful to Gladstone during his early parliamentary career, and doubtless enlisted the sympathy of Gladstone

in the "distressful country" and expanded his ideas of the Irish grievances. These were indeed very real. The land held by English landlords was in nearly every instance in the hands of a resident agent, whose sole interest was to wring from the peasantry the highest possible rental. There was no tie of personal attachment between the "absentee landlord" and the oppressed tenant; the agent was the only medium of communication, and was almost invariably tyrannical, cruel, and unjust. Often a man would take at a low rental a piece of rocky hillside or unproductive bog land, and after he, and possibly his sons, had reduced this to something approaching a remunerative condition after eight or ten years of hard toil, would think they had secured a comfortable homestead; but the alert agent was always on the watch, and wherever the land was so improved he insisted on doubling the rent. Refusal to pay meant eviction, and eviction of the cruelest, harshest, and most inhuman kind. This was a question affecting the peasantry only; but there were other abuses in connection with the Irish Church, and the fact that all public works undertaken in Ireland, and for which private bills had to be passed, had to go through the English Parliament, witnesses and lawyers being put to the cost of appearing at Westminster. These latter disabilities were a source of friction to the better class of the Irish people, and often insured their sympathy with acts of violence committed by the peasantry. Such was the condition of Ireland at the time of the first reform Parliament. Gladstone sat in the house as the representative of a great historic house of pronounced Tory proclivities. The Duke of Newcastle, indeed, had the ideas of a feudal lord, and thought he had the undoubted right to send whom he pleased to Parliament to represent the interests of his own large tenantry. Gladstone had taken but a languid interest in Ireland, but the terrible condition of things roused his sympathy and stirred his heart, and he determined to secure by legal enactment just and equitable treatment for the Irish peasantry. He was gaining parliamentary experience, and he eagerly sought, what other members shirked, the tedious and arduous duty of sitting on committees. These committees met at 11 A. M. and often were continued to 4 P. M., when the regular business of the house began, and as the house often was in session until 8, 4, or 5 A. M., Gladstone's day was indeed a hard one; but the experience he gained and his indefatigable energy impressed Sir Robert Peel, who made him Junior Lord of the Treasury, and shortly afterward advanced him to the office of Under Secretary for the Colonies. In the latter capacity he had no time to show his ability, for, before he could pass his first bill, the Peel ministry was defeated and the Whigs resumed power. During the next six years Gladstone took little part in the bitter party struggles, and during this lull in political activity he wrote "The State in its Relation with the Church," insisting that religion was the great end and aim of all civilized government. This book, published in 1838, was the subject of an exhaustive and elaborate review by Macaulay, who speaks of Gladstone somewhat sarcastically as "a young man of unblemished character and of distinguished parliamentary talents, the rising hope of those unbending Tories, who follow, reluctantly and mutinously, a leader, whose experience and eloquence are indispensable to them, but whose cautious temper and moderate opinions they abhor." Macaulay generally disagrees with Gladstone's ideas, and incidentally says: "He has one gift most dangerous to a speculator, a vast command of a kind of language, grave and majestic, but of vague and uncertain import; of a kind of language which affects us much in the same way in

which the lofty diction of the chorus of 'The Clouds' affected the simple-hearted Athenian." This is very similar to the quaint words of the well-known charge of "being intoxicated with the exuberance of his own verbosity," made by Disraeli.

Close application and study by candlelight had so impaired Gladstone's sight that he found it necessary, in the autumn of 1838, to seek medical advice, and rest being prescribed, decided to winter at Rome. Among the visitors in that city were Lady Glynne, widow of Sir Richard Glynne, of Hawarden Castle, Flintshire, North Wales, and Lady Glynne's daughters. Gladstone already had some knowledge of the family and recollections of a pleasant visit to Lady Glynne's son, a college friend at Oxford, at Hawarden Castle. The intimacy was revived, and he whose star seemed always in the ascendant secured the love of Lady Glynne's eldest daughter, Catherine. They were married on July 25, 1839, at Hawarden, and at the same time and place the younger daughter, Mary, was united to George William, fourth Lord Lyttleton. Miss Catherine Glynne was heir to the Hawarden estates on the decease of Sir Richard Glynne, and on his death, some time later, Gladstone and his wife decided to occupy the castle, and this became the family home. Of all the happy fortunes that befell Gladstone, none equal that of his marriage. Mrs. Gladstone relieved her husband of all the little petty domestic worries that so often harass great thinkers. The conditions of Gladstone's domestic relations were a great help to him in his life work.

In 1841, on the return of Peel to power, Gladstone was appointed Master of the Mint and Vice-President of the Board of Trade. Gladstone came of a great commercial family, conversant with figures, and cradled in finance, and in the tariff revision introduced by Peel he was chiefly instrumental; the abolition or reduction of duty upon 750 out of 1,200 duty-paying articles drew marked attention to his financial ability. During the session of 1842 Gladstone made over a hundred speeches, chiefly on fiscal legislation, which he controlled. His ability as an impressive and powerful orator and a ready and dexterous debater had been proved, but he had now shown ability of another order, exhibiting the versatility of his genius and indicating eminent fitness for control of the national exchequer. In 1843 he was made President of the Board of Trade. He put up a self-made barrier to his progress by somewhat eccentric action on the subject of the grant to Maynooth College, and resigned his office, but when free from its responsibility supported the measure.

He returned to the ministry as Secretary for the Colonies in 1846. Feeling that he was out of touch with his Newark constituency, he resigned, and for a year had no seat in the house. Meanwhile Peel had been forced, in great measure by the potato famine in Ireland, to repeal the corn laws; but the Tory party had their revenge, as on the same day, very greatly owing to Disraeli's influence, who was now rising to power, they defeated the Government on a coercion bill for Ireland. Gladstone was returned to Parliament by Oxford University in 1847. He had altered his views on the question of admitting Jews to Parliament, greatly to the chagrin of his Conservative constituents. In 1849 he attacked the policy of Lord Palmerston in the Don Pacifico difficulty, when Greece very properly protested against an outrageous claim for damages, which Palmerston proposed to enforce with a high hand. The speech was a plea for consideration of the weaker country, and Gladstone said it was the duty of states, as of individuals, to deal gently with the weak. He was not attracted by a dazzling policy calculated to spread English influence and make foreign nations jealous and Englishmen

elated; he asked that England's policy should be a policy of morality and Christianity. This showed him to be an apostle of principle in politics as in private life. He proved his liberality and true love of freedom in the protest he made against the excited and unchristian spirit that actuated the passing of the "ecclesiastical titles bill." Justin McCarthy says, in allusion to this incident and the accusations of sympathy with Romanism then made against Gladstone: "There is no doubt a Church so venerable, with so picturesque a ritual, a Church in whose bosom so many generations of saints and sages have rested, could not but appeal to all that was poetical and all that was devotional in Gladstone's nature."

In the winter of 1850 Gladstone spent some time in Naples. He had intended taking rest, but, hearing of the terrible sufferings of political prisoners in the dungeons of Naples, he devoted his time to investigation. He found the most horrible cases of cruelty to these unfortunate persons, and wrote to Lord Aberdeen, then Prime Minister of England, bringing a powerful and detailed indictment against the rulers of Naples. These letters were published and caused a great sensation throughout Europe, and may be said to have assisted materially in bringing about the revolution that created a free and united Italy ten years later. The great heart of Gladstone was ever sympathetic with the oppressed and downtrodden. Parliament was dissolved in July, 1852, when he was again elected, by a largely increased majority, for Oxford University. Disraeli's second budget, during Lord Derby's administration, initiated the first great duel between him and his life-long rival, Gladstone delivering a critical dissection of the budget, which was the first of a celebrated series. On a division, the result was apparent in the defeat of the Government by a majority of nineteen, and Lord Derby resigned. The excitement in the country was intense and widespread. The new Government was a coalition of Whigs and Peelites, with Sir William Molesworth representing the Radicals. Lord Aberdeen became Prime Minister, and Mr. Gladstone Chancellor of the Exchequer. This was the first time Gladstone had held that responsible place, and his first budget was awaited with interest. It was introduced April 18, 1853. The introductory speech was of five hours' duration, yet the house was held spellbound. Nor was the country less impressed on consideration of Gladstone's financial proposals for the reduction of taxation. He received letters of congratulation from the Queen and the Prince Consort and unanimous eulogy from his numerous friends. The budget abolished duties on 123 articles and reduced the duties on 133 others, affording a total relief of \$5,000,000. Gladstone took no conspicuous part in the Crimean War, nor was he in any way responsible for its gross mismanagement; but as this caused the fall of the Aberdeen ministry, he went out of office. Lord Palmerston then became Prime Minister, with Gladstone again at the exchequer. This was the first time he had served under a Whig leader, and it was a decided step toward Liberalism. But after three weeks he, with two other members of the Government, resigned office on a matter connected with a proposed inquiry into the conduct of the war by the Government.

Gladstone was now for some time an independent member of the house, but in non-partisan matters was as active as ever. He powerfully opposed the institution of a divorce court, basing his opposition entirely on moral and religious grounds. Divorce applications in England before this act had to be heard in court, and if the charge was proved a special act of Parliament must be obtained to dissolve the marriage. This was so expensive that

divorce was possible to the rich only. Gladstone fought the bill desperately, meeting in committee a lawyer of the Crown, expert in divorce law. Gladstone is reported to have answered him as though he had done nothing but study this question all his life, and without note or indication quoted whole statutes. He failed, however, to defeat the bill.

On account of his Greek sympathies and knowledge, Gladstone was asked to go to the Ionian Isles, whose people were restive under British rule and wanted to be allied to their native country, Greece. Finding Greek, as pronounced, not very adaptable, he used Italian in all the negotiations. His reception was enthusiastic and surprising; his fame had gone before him, and the Ionians refused to consider him as an English Conservative commissioner, but as "Gladstone the Philhellene." The islanders agitated more than ever after he left; but their wish was not granted until 1862, when the brother of the Princess of Wales was made King of Greece, and the Ionian Islands were made over to that country.

In 1859, on Lord Palmerston's return to the premiership, Gladstone, now a decided Liberal, was again made Chancellor of the Exchequer, and for seven years he continuously reduced or abolished internal taxes and simplified customs. The budget of 1860 was memorable for the reduction of the wine duty and the proposed abolition of the paper duty. The Tory party always feared educating the people; and cheap paper meant cheap newspapers, which they did not want. Papers then were few and were sold at sixpence each, and many people bought one, which others paid to read. The House of Lords threw out this paper clause. Gladstone was very wroth, and declared their action unconstitutional. However, in the following year, he incorporated it in one great financial measure instead of a separate bill, and the Lords were compelled to pass it, and the penny newspaper was the immediate result. The Tories, in the opposition to this bill, used extraordinary arguments as to the dangers of anarchy and revolution from cheap literature.

A mistake owing to sheer and inexcusable ignorance, made by Gladstone in a speech at Newcastle-on-Tyne in 1862, when he said "Jefferson Davis has created a nation in a day," caused surprise and indignation, both among his own friends and the Americans of the North. Gladstone, however, made the *amende honorable*, frankly owning the ignorance that caused the remark.

The death of Lord Palmerston placed Lord Russell at the head of the Government, Gladstone resuming his old office and assuming also the leadership of the House of Commons. By his budget of 1865 he struck off £5,400,000 of taxation, reducing the tea duty by 6d. in the pound and lowering the income tax from 6d. to 4d. In 1866 he introduced his first reform bill, which was not very well received, though really moderate. The Conservatives would have none of it. There was a split in the camp of the Liberals, and Robert Lowe, the brilliant leader, formed a party who were nicknamed "Adullamites" from the cave where the disgruntled Jews retired. They caused Gladstone much anxiety by their defection, and his speech winding up the second reading debate was one of his greatest, if not his greatest, oratorical effort. The second reading was carried by a majority of only five; but soon afterward an amendment was successful against the Government, which at once resigned. A popular agitation in favor of reform burst forth all over the country, and Gladstone was the name on every tongue. At the general election of 1868 he was nominated for South and West Lancashire, being defeated at one place and successful



Portrait of
Dr. Apperton & Company

Richard Chadstone

at the other. A great Liberal majority was also returned, and Dec. 3, 1868, Gladstone was summoned to Windsor and commanded to form an administration.

Early in the Parliament of 1869 Gladstone began his work by introducing the Irish Church bill, which, after being hotly debated in both houses of Parliament, received the royal sanction on July 26, 1869. Mr. Caldwell's military reorganization scheme, now introduced, included the abolition of the purchase of commissions in the army, future promotions to be by merit only. Gladstone found that vested interests made any action of this kind like stirring a hornet's nest. The Lords had thrown out the ballot bill, and they now threw out the purchase bill. Gladstone took a step for which he was much abused, some of his followers disapproving the course. He found that purchase in the army depended on royal sanction, and he persuaded the Queen to abolish purchase by royal warrant. Much as this act was deprecated, its effect has been most salutary. In the general election in 1874 Gladstone set himself to maintain his hold on Greenwich and upon the country with great determination, foreseeing important Liberal measures, even the abolition of the income tax; though he was elected for Greenwich, a local Tory distiller headed the poll. His followers were less fortunate, and when Parliament met the Tories had a majority of forty-six. So great was Gladstone's disappointment at this unforeseen result that he announced his intention of quitting the political arena. This step greatly embarrassed the Liberal party, but the Marquis of Hartington stepped into the breach.

Gladstone's retirement was not for long; the introduction by Archbishop Tait of a public-worship-regulation bill, which was receiving Disraeli's support, brought him back to fight it to the bitter end. His action delighted the ritualists, and when the bill became law Gladstone published in the "Contemporary Review" his celebrated article on "Ritual and Ritualism," followed by another in 1875, "Is the Church of England worth preserving?" In that article occurred a passage that was plainly an attack on Catholicism, and all the Catholic world rose in arms against him. He replied in two strong pamphlets, "The Vatican Decrees in their Bearing on Civil Allegiance" and "Vaticanism." Both were powerful, but he hardly decimated his opponents.

In the last eighteen years of his political life, Gladstone entered the strife again with all the energy of his younger days. The result may be summed up in the Midlothian campaign against the Bulgarian atrocities and Disraeli's administration; the second Gladstone Government and its protracted conflict with the Parnell revolution; his third term of office devoted to the home-rule bill; the disruption of the Liberal party and the defeat of that project as well as the land scheme; the carrying of the country for home rule at the general election, and the passing of his home-rule scheme through the House of Commons, to be rejected by the House of Lords. Gladstone was thus debarred from putting the crowning act upon his Irish policy. He had early seen the unmitigated evils and injustice of the coercive legislation in that unhappy isle, and the best part of his life and his mighty intellectual powers were devoted to the noble cause of creating between the two so closely allied countries a spirit of true harmony and mutual confidence. He did much, however, to insure the more friendly and sympathetic relations in which the two countries now stand, by the relief which was afforded by the passage of a bill for the disestablishment and disendowment of the Protestant state Church in Ireland, an act in the interest

of religious equality; but he achieved a greater triumph when he caused to be placed on the statute book, after most bitter opposition, the wise and equitable land acts of 1870 and 1881. The first of these provided for giving the tenantry fairer rents and due compensation for unexhausted improvements on the land in case of eviction. The second act went still further and, besides having for its object the reduction of the too often iniquitous evictions, made provision for rents to be fixed by judicial authority. Mr. Gladstone felt, however, that his work for the Irish cause was at an end, and he decided to retire from the active political life to which he had been so long accustomed, impelled also to this course by a severe affection of the eyes, for which an operation was afterward found necessary.

On March 3, 1894, Mr. Gladstone and his wife visited Windsor Castle, where he placed his resignation in the hands of the Queen. Her Majesty had earlier in her reign some suspicions of Gladstone's policy and for some years was failing in appreciation of his great character and aims. Her opinion, however, had undergone a complete change, and on this visit she pressed on the veteran statesman the acceptance of a peerage, and on his refusal it was suggested that the honor be accorded to his wife; but Gladstone clearly saw that his life would be more indelibly impressed on national history and closer to the country's heart by the name of his boyhood and of the mother and father to whose loving care and religious guidance his proud career was greatly due. He retired while yet vigorous and in full possession of all his wonderful mental activity. The evening of his life was spent in literary work and religious reflection, in those ideal home surroundings which were one of the earthly rewards of the great statesman. After his final retirement he was on only one or two occasions tempted into enthusiasm, once when aroused by the massacre of Christians in Armenia, which evoked a stirring speech from the "Grand Old Man," delivered in Liverpool to a wildly enthusiastic audience, and again when, in the Greco-Cretan trouble, he thought it his duty to address a long, impressive letter to the Duke of Westminster.

To summarize the benefits Gladstone conferred on his country during his four terms of office, it may be stated that, though his spirit inspired each of his administrations, he was personally responsible for securing to the public parliamentary trains at one penny a mile and the conveyance of children at half price; the abolition of the paper tax, which made the penny paper a possibility; and the construction of several budgets which removed large burdens of taxation from ratepayers and consumers. The bills relating to Ireland were, it is needless to say, entirely of his personal initiation. During his premiership the governments under his control also passed an act that introduced national education into England and secured to voters immunity from espionage and coercion by means of the ballot act. Socially, Gladstone was brilliant, and his wide reading made his opinions valuable on nearly all the diverse subjects that stir the soul of man. The caution "Beware of the man of one book" could not be applied to him, for it was his habit to have two or three in use together, as a mental change. Gladstone was a good musician, and possessed a fine baritone voice; he was an enthusiastic equestrian, and was exceedingly fond of the somewhat laborious exercise of tree felling, for which the finely wooded desmesne of Hawarden afforded him ample scope. This habit became known, and led to his being presented with axes by his admirers, of all conceivable designs and material, even up to the precious metals. His metaphoric allusion to the upas tree

in referring to Irish rule was taken from the active life of the great statesman. Gladstone's sole aim throughout his career was the adaptation of legislative enactment to the moral and material wants and progress of the people. He pinned his faith to moral principles and the sure progress of truth and right. In his last illness, amid the agonies of that painful disease, cancer, he was supported and enabled to bear with patience and resignation the awful suffering by tender ministry of his wife and family, and his deep faith in Divine Providence. It is worthy of comment that two of the greatest statesmen in contemporary history, Bismarck, the "Iron Chancellor," and Gladstone, the "Grand Old Man," were scarcely known to each other. Gladstone is at rest in the finest memorial of the church he loved, amid the dust of those whom the world has delighted to honor, and, by the grim irony of fate, the great commoner and the coroneted earl who was almost his only enemy in life lie side by side, at rest from the fret and fever of earthly ambition.

GREAT BRITAIN AND IRELAND, a monarchy in western Europe, formed by the union of the Kingdom of England, the Principality of Wales, and the Kingdom of Scotland, constituting together the Kingdom of Great Britain and the Kingdom of Ireland, the whole forming the United Kingdom, which holds supreme dominion over the Empire of India and colonies and dependencies of various kinds—self-governing colonies, colonies administered by the Crown, and protectorates under native laws and rulers—constituting, with the United Kingdom, the British Empire. The reigning sovereign is the Queen-Empress Victoria, born May 24, 1819, the daughter of Edward, Duke of Kent, who was the fourth son of George III. The heir apparent is Albert Edward, Prince of Wales, born Nov. 9, 1841, whose only surviving son, George, Duke of York, born June 3, 1865, is next in succession.

The power to legislate for the United Kingdom and, except so far as is delegated to local legislative authorities, for the whole British Empire, is vested in the British Parliament, consisting of the House of Lords and the House of Commons. The members of the House of Lords are princes of the blood royal; spiritual lords, which are the metropolitan bishops of ancient English sees; hereditary peers of England, of Great Britain, or of the United Kingdom; law lords and life peers created by the sovereign on the advice of the ministers; and representatives elected from the Scotch and Irish peerages. There were 580 peers on the roll in 1897. The House of Commons numbers 670 members, of whom 495 represent English and Welsh, 72 Scotch, and 103 Irish constituencies. Every proprietor, householder, or lodger paying a rent of £10 a year possesses the parliamentary franchise. The number of registered electors in the three kingdoms in 1897 was 6,470,074. The committee of ministers called the Cabinet, representing the actual majority in the House of Commons, exercises in fact the executive authority in the United Kingdom and in the empire that is nominally vested in the Crown. The Prime Minister selects his colleagues and dispenses the patronage of the Crown; he initiates to a great extent the policy of the Government and the legislation of Parliament, and when his policy is defeated in Parliament or reversed at the polls he resigns with the rest of the Cabinet and advises the Queen as to the political leader who is most competent to form a new Cabinet. The Cabinet formed on June 25, 1895, by Lord Salisbury, consisted, in the beginning of 1898, of the following members: Prime Minister and Secretary of State for Foreign Affairs, the Marquis of Salisbury; Lord President of the Council, the Duke of Devonshire; Lord High Chancellor, the

Earl of Halsbury; Lord Privy Seal, Viscount Cross; Chancellor of the Duchy of Lancaster, Lord James of Hereford; First Lord of the Treasury, Arthur J. Balfour; Secretary of State for the Home Department, Sir Michael E. Hicks-Beach; Secretary of State for the Colonies, Joseph Chamberlain; Secretary of State for War, the Marquis of Lansdowne; Secretary of State for India, Lord George Hamilton; First Lord of the Admiralty, G. J. Goschen; President of the Local Government Board, Henry Chaplin; President of the Board of Trade, C. T. Ritchie; Lord Lieutenant of Ireland, Earl Cadogan; Lord Chancellor of Ireland, Lord Ashbourne, formerly Edward Gibson; Secretary for Scotland, Lord Balfour of Burleigh; First Commissioner of Works, A. Akers-Douglas; President of the Board of Agriculture, W. H. Long.

Area and Population.—The area of England is 50,867; of Wales, 7,442; of Scotland, 29,785; of Ireland, 32,583; of the Isle of Man, 227; of the Channel Isles, 75 square miles; total, United Kingdom, 120,979 square miles. The estimated population of England and Wales and the islands in 1897 was 31,055,355; of Scotland, 4,218,279; of Ireland, 4,550,929; total, United Kingdom, 39,824,563. The population of the metropolis in June, 1897, was 4,463,169 for the registration district, and 1,828,508 for the outer ring; total for greater London, 6,291,677. The population of the principal English municipal boroughs in 1897 was as follows: Liverpool, 633,078; Manchester, 534,299; Birmingham, 505,772; Leeds, 409,472; Sheffield, 351,848; Nottingham, 232,934; Bristol, 232,042; Bradford, 231,260; Kingston-upon-Hull, 225,045; Newcastle, 217,555; Salford, 213,190; Leicester, 203,599; Portsmouth, 182,585; Cardiff, 170,063. In Scotland, Glasgow had 714,919 inhabitants in 1897; Edinburgh, 292,364; Dundee, 163,090. In Ireland, Dublin had 361,891 inhabitants in 1891. The number of marriages in England and Wales in 1896 was 242,445; of births, 917,201; of deaths, 527,929; excess of births, 389,272. The number of marriages in Scotland was 30,256; of births, 129,153; of deaths, 70,634; excess of births, 58,519. The number of marriages in Ireland was 22,856; of births, 107,641; of deaths, 75,700; excess of births, 31,941. The number of persons, natives and foreigners, who emigrated from the United Kingdom to the United States in 1897 was 132,098; to British America, 22,702; to Australasia, 12,491; total, 213,450. The total for 1896 was 241,952, comprising 144,913 males and 97,039 females. English emigrants numbered 94,719 in 1897; Scotch, 16,140; Irish, 35,681; total, 146,540. The net emigration in 1896, after deducting 159,918 immigrants, was 82,039; the net emigration of natives of the British Islands, after deducting 101,742 returned, was 60,183.

Finances.—The estimated revenue for the year ending March 31, 1897, was £100,480,000, and the estimated expenditure was £102,324,921. The actual receipts amounted to £103,949,885, and the actual disbursements to £101,476,669, leaving a surplus of £2,473,216, compared with one of £4,209,472 in 1896 and one of £765,341 in 1895. Including £3,249,000 paid over to local taxation accounts, the total revenue was £112,199,000. The net receipts from customs were £21,266,131, of which tobacco paid £11,018,048, tea £3,799,372, rum £2,111,297, brandy £1,303,617, other spirits £903,278, wine £1,296,181, currants £117,265, coffee £172,333, raisins £214,069, and other articles £330,651. The excise receipts were £27,435,096, of which £16,013,412 came from spirits, £10,901,094 from beer, £272,163 from railways, £240,866 from licenses, and £7,541 from other sources. The yield of the estate duty was £7,159,581; of the temporary estate duty, collected on property of persons dying after Aug. 1, 1894, £107,507; of

the probate duty, collected from similar estates, £63,922; of the legacy duty, £2,546,497; of the succession duty, £823,683; of the corporation duty, £40,189; total, £10,741,379. Stamps brought in £7,311,446; the land tax, £916,445; the house duty, £1,513,434; the income and property tax, £16,901,341. The total yield of taxes was £86,085,272, and the income from other sources £18,003,397, making the total net receipts £104,088,669. Of the non-tax revenue £11,876,656 came from the post office, £2,922,449 from telegraphs, £420,403 from Crown lands, £649,075 from interest on Suez Canal shares, and £2,069,814 from miscellaneous sources.

The expenditure under the three main heads for the year ending March 31, 1897, were £26,643,000 for the consolidated fund, £40,440,000 for the army and navy supply services, and £34,394,000 for civil and miscellaneous services, including the cost of collecting the revenue. The national debt charges amounted to £25,000,000, of which £16,108,037 represent interest on the funded debt, £7,149,743 terminable annuities, £112,534 interest on unfunded debt, £175,692 management of the debt, and £1,453,994 the new sinking fund. Other charges on the consolidated fund were £407,579 for the civil list, £296,261 for annuities and pensions, £78,941 for salaries, £513,650 for courts of justice, and £346,436 for miscellaneous expenses. The expenditure on the army was £18,270,000; on the navy, £22,170,000; for civil services, £20,045,000; for customs and inland revenue, £2,716,000; for the post office, £7,150,000; for the telegraph service, £2,961,000; for packet service, £723,000; for a grant in aid to the Egyptian Government, £798,802; total for the supply services, £74,833,802, making with the disbursements for consolidated fund services a total expenditure of £101,476,669.

In 1897-'98 the total revenue collected was £116,016,000, from which £9,402,000 were paid over to local taxation accounts, leaving the total receipts of the exchequer £106,614,000, which was £3,570,000 in excess of the estimates. Customs yielded £21,798,000; excise, £28,300,000; death duties, £15,328,000, of which £11,100,000 went into the exchequer; stamps, £7,650,000; income tax, £17,250,000. The total expenditure was £102,988,000, leaving a surplus of £3,678,000. The budget estimate of £102,541,000 was increased by £250,000 for recoinage of light gold, £644,000 for civil service and post-office supplementary estimates, and £989,000 for army supplementary estimates, while £1,488,000 of the sum voted for naval construction was not expended owing to the engineers' strike. Including the sum paid to the local taxation accounts and £2,751,000 of capital expenditure on naval and military works, barracks, telephones, sites for public offices, and the Uganda Railroad, the aggregate expenditure was £115,069,000, exceeding that of any previous year. Of the realized surplus of the year £2,550,000 were set aside to establish a fund for public buildings, leaving £1,128,000 to be added to the balances in the exchequer. Including this new fund and £1,848,000 appropriated for naval and £1,723,000 for military works, the accumulated surplus on April 1, 1898, amounted to £10,918,000.

For 1898-'99 the total estimated expenditure is £116,007,000, including £9,178,000 to be paid in relief of local taxation and £385,000 required under the Irish local government bill. The budget expenditure is £106,829,000. The increase over the preceding budget is mainly due to the new programme of naval construction, the reform and increases of the army and better conditions for the soldier, increased work in the post office and expenditure on education, and military expenditures in East and West Africa. The increase in the total estimated annual expenditure in three years has

been £12,764,000. Of this increase £2,380,000 go to the relief of local taxation, £1,520,000 to the post office, the revenue of which has increased £2,000,000 in three years, £1,773,000 to education, and £8,564,000 to imperial defense, the annual expenditure for the army having increased £1,237,000, for the navy £5,077,000, and for colonial forces £250,000. The total expenditure on the defenses of the empire, including the expenditure of India and the colonies, is for the army £37,500,000 per annum, and for the navy £26,000,000. The expenditure of the United Kingdom alone on the navy and naval works for 1899 is estimated at £25,528,000, and this is equal to the combined expenditure of France, Germany, and Russia.

The budget revenue for 1898-'99 was estimated at £108,615,000, leaving an estimated surplus of £1,786,000. An increase was looked for under nearly every head except the estate duties, stamps, and the land tax. The total tax revenue under the existing taxes was estimated at £90,000,000 and non-tax revenue at £18,615,000. In framing the budget the Chancellor of the Exchequer reduced taxation to the extent of £1,505,000. A remission to the small income-tax payers costs the revenue £100,000. Under the previous law the amount of income exempt from taxation, namely, £160, was deducted in taxing incomes under £400, £100 in incomes of from £400 to £500 was exempt, and incomes over £500 paid the full tax of 8d. in the pound. Under the new law an abatement of £150 is allowed on incomes of £400 to £500, £120 on incomes of £500 to £600, and £70 on incomes between £600 and £700. Two changes were made in the death duties. As the law stood, lineals who paid estate duty were freed from the legacy or succession duty, while collaterals were not. This made the death duty on a great estate passing to a distant relative or a stranger as high as 18 per cent. Under the amended law collaterals are granted an allowance of 1 per cent. from the legacy and succession duties when they also pay estate duty. The other change postpones the payment of the duty on the devolution from husband to wife or from wife to husband of property settled on the marriage until the death of the survivor. A change was made in the land tax, exempting from taxation properties under £5 annual value which have been taxed only since the reassessments necessitated by the reduction in 1896 of the maximum limit of the land tax from 4s. to 1s. in the pound. The estimated reduction in revenue caused by these remissions of the death duties and the land tax is £285,000. In indirect taxation spirits obtained by grogging, or soaking emptied liquor casks, were made liable to duty the same as other spirits. A considerable reduction was made in the duty on unmanufactured tobacco, which has been 8s. 2d. a pound for half a century, increasing the prime cost of the unmanufactured article 400 per cent. The duty is reduced 6d. a pound on unmanufactured tobacco and on other classes proportionately, with the exception of cigars. The legal limit of moisture in manufactured tobacco is reduced from 35 per cent. to 30 per cent. The loss to the revenue from the reduction in the tobacco duties is estimated at £1,120,000. Customs revenue in 1898-'99 is estimated at £21,080,000; excise, £28,950,000; estate duties, £10,670,000; land tax, £925,000; house duty, £1,570,000; income tax, £17,700,000; stamps, £7,600,000; total tax revenue, £88,495,000; non-tax revenue, £18,615,000; making the total estimated revenue £107,110,000, leaving a margin of £281,000 over the total estimated expenditure.

The funded and unfunded debts on April 1, 1897, amounted to £640,773,679, or, including other capital liabilities, to £644,909,847, of which £587,698,-

732 represent the funded debt, £44,941,947 the capital value of terminable annuities, £8,183,000 the unfunded debt, and £4,186,168 liabilities under various acts of Parliament. The assets of the Government were Suez Canal shares of the market value of £22,299,000 and £970,905 of other assets, making a total of £23,269,905, besides £9,867,184 of balances in bank. On April 1, 1898, the gross liabilities of the treasury amounted to £638,305,000 and the funded debt to £585,788,000, it having been reduced during the year by £1,911,000. The capital value of terminable annuities was £40,553,000, the unfunded debt was the same as the previous year, and the liabilities for barracks, telephones, and other special objects authorized by Parliament were £3,831,000. The total reduction of debt for the year was £6,605,000. The amount of debt paid off in the course of ten years has been £66,250,000. In the same period the local debts have increased £75,250,000.

The Army.—The strength of the regular army, as provided in the estimates for 1898, was 7,814 officers, 1,054 warrant officers, 16,233 sergeants, 3,788 drummers, trumpeters, etc., and 134,680 rank and file; total, 163,569 men of all ranks. The general staff numbered 340 officers, with 133 noncommissioned officers and men; army accountants, 209; chaplains, 86; medical department, 596; veterinary department, 72; cavalry, 551 officers, 1,281 noncommissioned officers, drummers, etc., and 11,437 men; Royal Artillery, 1,045 officers, 2,255 noncommissioned officers, etc., and 23,823 men; Royal Engineers, 595 officers, 1,283 noncommissioned officers, etc., and 5,967 men; infantry, 2,895 officers, 6,768 noncommissioned officers, etc., and 81,740 men; colonial corps, 208 officers, 463 noncommissioned officers, etc., and 5,862 men; departmental corps, 198 officers, 1,881 noncommissioned officers, etc., and 3,140 men; army service corps, 246 officers, 760 noncommissioned officers, etc., and 2,805 men; gunnery and musketry instructors, military academies and colleges, regimental schools, and other establishments, 188 officers, 559 noncommissioned officers, etc., and 130 men. The number of horses provided for the establishment was 15,238. These figures do not include the British army maintained in India at the expense of the Indian Government. The number of troops maintained in the United Kingdom in 1897 was 100,641, comprising 11,897 cavalry, 16,233 artillery, 5,555 engineers, and 66,966 infantry and special corps. The total effective strength of the British army on Jan. 1, 1897, was returned as 220,969 officers and men, of whom 73,272 were stationed in England, 3,599 in Scotland, 23,770 in Ireland, 4,711 in Egypt, 38,522 in the colonies, and 76,995 in India. The effective strength of the regular forces at home and in the colonies in 1898 was 143,874; of the army reserve, 78,142; of the militia, 120,064; of the yeomanry, 10,184; of the volunteers, 236,065; total, 588,349. Adding 76,995 British soldiers in India, the total fighting strength of the nation was 665,344 trained fighting men. Of 40,165 British troops in the colonies in 1897, 10,628 were stationed at Malta, 5,404 at Gibraltar, 6,447 in Cape Colony and Natal, 1,971 in Bermuda, 3,279 in Jamaica, Barbadoes, and St. Lucia, 1,784 at Halifax, 3,448 at Hong-Kong, 1,655 in the Straits Settlements, 1,769 in Ceylon, 1,219 in Mauritius, 1,657 in West Africa, 136 in Cyprus, and 749 at St. Helena.

In time of war dispositions are made for the formation of two army corps for service outside of the British Islands, having a total strength of 2,310 officers and 70,182 men, with 20,236 horses, 128 field guns, and 28 revolver cannon; a division of cavalry, numbering 827 officers and 6,701 men, with 6,676 horses, 12 field pieces, and 6 revolver cannon; and a

reserve force consisting of 448 officers and 11,394 men, with 3,241 horses, 12 pieces of artillery, and 8 revolver cannon. For the defense of the country garrison and fortress troops can be taken from the militia and volunteers, and three army corps can be formed, besides which there are 22 infantry brigades of volunteers for field service and 4 brigades of cavalry, not counting unallotted units available for garrison service. Great Britain and Ireland are divided into 14 military districts, and these into 102 subdistricts for the infantry, organized in linked battalions, one of which is usually serving abroad, while the other is garrisoned somewhere in the United Kingdom. The militia and volunteer infantry of each subdistrict are under the command of the same colonel as the brigade of infantry of the line. For the artillery there are 12 subdistricts, and for the infantry there are 2, commanded by colonels of artillery and of cavalry.

The total number of all ranks of the regular army on Dec. 31, 1897, was 221,487, showing an increase over the previous year of only 618, although the augmentation authorized was 3,186. In the session of 1897 an increase of 7,879 was sanctioned, but of these little more than one third were obtained. In 1898 the Government asked for an increase of 25,000 men, the drain on the army to garrison the new territories and fight in the small wars going on at the edges of the expanding British Empire having disturbed the equilibrium of the linked battalion system, according to which every battalion serving abroad must be supported by a battalion at home. In recent years some line regiments have both battalions serving abroad, and in the case of many others the home battalion is a mere school for raw recruits, deficient in numbers, stamina, age, and training. To attract recruits the pay of the soldier was raised 3d. a day for the long-service troops and a limited number were to be engaged for three years only. Of the additional troops a part were to be formed into 6 new battalions and each of the home battalions was to be strengthened by the addition of 80 men. Two army corps were supposed to be ready to embark in 1898, and a third corps was being formed, but lacked still the necessary field artillery. The intended increase will bring the regular troops up to 132,453 and the reserves up to 88,000, making, with the yeomanry, military, and volunteers, the total military forces maintained at home over 637,000 men. The first-class reserve on Jan. 1, 1898, numbered 82,005 men; the militia, 105,531; the militia reserve, 29,961.

The Navy.—The British navy at the beginning of 1898 consisted of 30 first-class, 7 second-class, and 21 third-class battle ships, 14 coast-defense vessels, 9 armored cruisers, 9 first-class and 64 smaller cruisers, 19 lookout ships, 34 torpedo gunboats, 79 destroyers, and 55 first-class, 4 second-class, and 20 third-class torpedo boats. There were under construction 8 first-class battle ships, 4 armored cruisers, 5 first-class and 14 smaller protected cruisers, and 13 destroyers. The "Majestic," "Magnificent," "Victorious," and "Prince George" are the latest type of battle ship, having a displacement of 14,900 tons, 14 inches of Harveyized armor over the vital parts, engines of 12,000 horse power, designed to make 18 knots, and an armament of 4 12-inch guns mounted in barbette emplacements, with 12 6-inch and 28 smaller quick-firers. The "Mars," "Illustrious," "Jupiter," "Hannibal," and "Cæsar," of the same class, have been begun, and three others are on the programme of Lord Spencer that was adopted in 1899. The barbettes of the "Majestic" class are strongly armored, and the heavy guns, which are mounted in pairs, can be loaded either by hand or by hydraulic power. The three new ones will have water-tube boilers, and

are designed to make 18½ knots with moderate forced draught and 18 knots with natural draught. Their secondary armament will have superior protection. The "Cæsar," "Illustrious," and "Hannibal" were completed before March 31, 1898. The "Renown," launched in 1895, with a displacement of 12,350 tons, 10 inches of armor, 10,000 horse engines, making 17 knots, and 4 29-ton guns mounted in two barbets, with 10 6-inch quick-firers and 30 smaller ones, has been improved in the "Canopus" class. This vessel, launched in October, 1897, has a displacement of 12,950 tons, 12 inches of side armor, engines of 13,500 horse power, giving a speed of 18½ knots, and an armament almost the same as on the "Majestic" class, consisting of 4 12-inch breechloaders, 12 6-inch, 12 12-pounders, and 14 smaller quick-firing guns. The Spencer programme included 4 others of this type, the "Ocean," "Goliath," "Albion," and "Glory," and another, the "Vengeance," has been added. Three more that have been since authorized are improved "Majestics." All the new battle ships will be armed with 12-inch and 6-inch quick-firing guns. These would have been further advanced if the engineers' strike and lockout had not intervened. Four new armored cruisers are building which will have a displacement of 11,850 tons, with an armament of 2 9-inch breechloaders and 12 6-inch and 14 12-pounder quick-firers. The great deck-protected cruisers "Powerful" and "Terrible," of 14,200 tons, have been completed. They have 25,000 power engines, making 22 knots, and carry 2 9.2-inch breechloaders and 12 6-inch, 18 12-pounder, and 12 3-pounder quick-firing guns. The "Diadem" class has a displacement of 11,000 tons, engines of 16,500 horse power, giving a speed of 20½ knots, and an armament consisting exclusively of quick-firers, 16 6-inch, 14 12-pounder, and 20 smaller ones. The "Diadem" was launched in 1896, the "Andromeda," "Niobe," and "Europa" in the following year, and the "Argonaut," "Spartiate," "Amphitrite," and "Ariadne" are rapidly approaching completion. The next four to be built, the "Cressy" class, will be of greater dimensions, 11,850 tons, and will carry a pair of 9-inch, besides 12 6-inch and 14 12-pounder quick-firing guns. Nine second-class cruisers of the "Talbot" class, 5,600 tons, have recently been completed. These are the "Eclipse," "Minerva," "Talbot," "Diana," "Juno," "Venus," "Dido," "Doris," and "Isis." They make 19½ knots with engines of 9,600 horse power, and carry a quick-firing armament of 5 6-inch, 6 4.7-inch, and numerous smaller guns. Three more, the "Hermes," "Hyacinth," and "Highflyer," are being added, and four others of larger size, the "Furious," "Gladiator," "Vindictive," and "Arrogant," were launched in 1896. These displace 5,750 tons, have engines of 10,000 horse power or over, giving a speed of 19 or 19½ knots, and carry 4 6-inch, 6 4.7-inch, 9 12-pounder, and 8 small quick-firing guns. Eight third-class cruisers of the "Pelorus" type were begun in 1896 and 1897. The newest of the smaller cruisers are of the "Apollo" type, displacing 3,400 tons, or of the type of the "Astræa," of 4,360 tons, with engines of 9,000 horse power, giving a speed of 19½ or 20 knots. Of the 90 destroyers ordered under the naval-defense act, but few remain to be finished. Of the 42 first ordered, with a contract speed of 26 or 27 knots, 37 were completed before the end of the financial year. Contracts were next made for 45 with a speed of 30 knots, and five more were ordered in 1898. Of still newer types three were ordered with a speed of 32 or 33 knots, and one having a steam turbine instead of the reciprocating engine. A flotilla of 8 light-draught gunboats has been built for service on African rivers.

The new ship-building programme for 1899 when first announced comprised 3 battle ships, 4 armored cruisers, and 4 sloops. The naval budget for 1899, amounting to £25,000,000, was the heaviest ever voted in peace or war. Still it was insufficient to bring up the arrears in the authorized programme of construction. The number of officers, seamen, boys, coast guard, and marines voted for 1898 was 100,050, an increase of 6,800 for the year. In July Mr. Goschen announced an addition to the original programme, occasioned by the proposed new construction in Russia, and necessitating, in order to maintain the superiority of the British navy over those of France and Russia combined, the building of 4 more battle ships, 4 cruisers, and 12 destroyers. The two programmes together involve an outlay on shipbuilding of £15,000,000 spread over four years.

Commerce and Production.—The production of wheat in Great Britain in 1897 was 54,913,000 bushels; of barley, 66,804,000; of oats, 116,812,000; the production in 1896 of wheat in Ireland, 1,194,000 bushels; of barley, 7,050,000 bushels; of oats, 48,844,000 bushels; of potatoes, 2,701,000 tons; of turnips, 4,783,000 tons. There were 1,526,424 horses, 6,500,497 cattle, 26,340,440 sheep, and 2,342,302 pigs in Great Britain in 1897, and in Ireland 534,133 horses, 4,463,935 cattle, 4,157,581 sheep, and 1,327,226 pigs. The quantity of fish landed on the coast in 1897 was 688,263 tons, valued at £7,480,060. The imports of fish in 1896 were 113,654 tons, valued at £2,636,076. The exports were valued at £2,009,147, of which £1,328,656 stand for herring alone. The quantity of iron extracted from British ores in 1896 was 4,759,446 tons, valued at £11,375,474; of lead, 303,398 tons, valued at £350,940; of tin, 4,838 tons, valued at £307,678; of zinc, 7,110 tons, valued at £123,240; of silver, 283,826 ounces, valued at £36,365; of copper, 556 tons, valued at £28,180. The value of all the ores raised was £3,814,536, and of all the metals contained in the ores £12,226,912. The total value of non-metallic minerals raised was £65,273,830. The coal output was 195,861,260 tons, valued at £57,190,147. The exports of coal, coke, and patent fuel were 34,262,056 tons, valued at £15,156,313. France, Germany, Italy, Spain, Sweden, Russia, Denmark, Norway, and Brazil took the bulk of the exports. The quantity of iron ore smelted in British furnaces in 1896 was 21,204,284 tons; the quantity of pig iron made, 8,659,661 tons; exports of pig iron, 1,060,165 tons; imports, 106,449 tons. The exports of bar and angle iron were 178,123 tons; of railroad iron, 747,662; of wire, 56,110; of plates for tinning, 48,405; of tin plates, 266,963; of cast and wrought iron, 366,230; of hoops and plates, 365,165; of old iron, 127,424; of steel, 297,439; of steel and iron, 36,712; total iron and steel, 3,550,398 tons. The imports of copper ore and regulus were 178,134 tons; of copper, 65,359; of lead, 167,799; of tin, 38,375; of zinc, 76,635. The quantity of raw cotton imported was 1,754,890,256 pounds and the re-exports were 183,823,808 pounds, leaving 1,571,066,448 pounds for home consumption. The imports of wool were 718,537,258 pounds, and the exports 334,691,803 pounds, leaving 383,845,450 pounds for home consumption. The consumption of flax is about 240,000,000 pounds. The exports of cotton piece goods in 1897 were 4,793,000,000 yards; of cotton yarn, 253,000,000 pounds; of woollen piece goods, 200,000,000 yards; of woollen yarn, 57,000,000 pounds; of linen piece goods, 165,000,000 yards; of linen yarn, 18,000,000 pounds; value of manufactured cotton exported, £64,000,000; of woollen manufactures, £20,860,000; of linen manufactures, £5,700,000. The quantity of tea imported in 1896 was 265,394,000 pounds, of which about 48 per cent. came from India, 36 per cent. from Ceylon, 13 per cent. from China, and 8

per cent. from Java and other countries, whereas in 1878 China furnished nearly 81 per cent., India only 17 per cent., and other countries 2 per cent., the great tea industry of Ceylon not having been established at that time. The total value of imports in 1897 was £451,298,683; of exports of British produce, £234,350,008; of exports of foreign and colonial produce, £59,833,677. The imports of live animals for food were valued at £11,380,332; of articles of food and drink free of duty, £151,550,115; of dutiable articles of food and drink, comprising tea, coffee, cocoa, wine, spirits, dried fruits, etc., £26,791,515; of tobacco, £4,072,435; of metals, £21,265,868; of chemical substances, dyestuffs, and tans, £6,006,210; of oils, £7,641,231; of raw textiles, £70,263,511; of raw materials for other industries and manufactures, £52,085,836; of manufactured articles, £85,033,387; of miscellaneous articles, £14,139,314; imports by parcel post, £1,004,930.

Among the exports of British produce and manufactures the value of live animals was £1,133,115; of articles of food and drink, £12,138,542; of raw materials, £20,140,090; of yarns and textile fabrics, £96,618,472; of metals and metal manufactures, £34,487,808; of machinery and mill work, £16,282,085; of apparel and articles of personal use, £9,873,192; of chemical products and medicinal preparations, £8,674,864; of all other manufactured or partly manufactured articles, £32,939,649; exports by parcel post, £2,057,186.

The imports of wheat, not including flour, were 14,659,600 quarters in 1897. The imports from the United States were 34,603,200, from Russia 15,049,900, from Canada 4,820,500, from Turkey 1,862,640, from Germany 1,333,400, from Roumania 1,224,340, from Chili 1,019,300, from the Argentine Republic 933,100, and from India 572,760 hundredweight. The imports of flour were 18,680,669 hundredweight, of which 14,062,970 hundredweight came from the United States. The total imports of cereals and flour were 177,706,840 hundredweight; of potatoes, 3,922,319; of rice, 5,178,862; of bacon and hams, 6,730,790; of fish, 2,449,730; of refined sugar, 15,832,092; of raw sugar, 13,552,227; of tea for home consumption, 231,399,778 pounds; of butter, 3,217,801 hundredweight; of margarine, 936,543; of cheese, 2,603,608; of beef, 8,185,023; of preserved meat, 669,785; of fresh mutton, 3,193,276; the number of sheep and lambs imported, 611,504; of cattle, 618,336; the quantity of wine for consumption, 15,853,071; and of proof spirits, 8,301,010 gallons. The values of the leading articles of import in 1897 were £53,579,745 for grain and flour, £32,194,732 for raw cotton, £27,368,484 for meat, £24,436,872 for wool, £23,636,361 for timber and wood, £18,402,281 for butter and margarine, £16,912,388 for silk manufactures, £15,950,797 for raw and refined sugar, £11,380,332 for live animals, £10,903,179 for woolen manufactures, £10,443,104 for tea, £9,109,253 for flax, hemp, and jute, £7,648,147 for leather and dressed hides and skins, £7,641,231 for oils, £6,633,438 for fruits and hops, £6,438,513 for wines, £6,006,210 for chemicals, dyestuffs, and medicinal preparations, £5,886,546 for cheese, £5,772,054 for iron manufactures, £5,751,045 for seeds, £4,435,934 for iron ore, £4,356,799 for eggs, £4,072,435 for tobacco, £3,571,443 for coffee, £3,040,758 for copper, £2,752,406 for copper ore, £2,115,364 for currants and raisins, £2,033,300 for lead, £1,628,262 for zinc and manufactures of zinc, £1,623,798 for tin; and £539,509 for pig iron.

The exports of cotton fabrics were valued at £54,061,269, and of cotton yarn at £9,932,447, making a total for cotton manufactures of £63,993,716; the exports of woolen fabrics at £15,982,888, and of woolen yarn at £4,842,137, making the total for woolen manufactures £20,825,025; the exports of

linen fabrics at £4,774,310, and of linen yarn at £976,658, making the total for linen manufactures £5,750,968; the exports of jute fabrics at £2,168,071, and of jute yarn at £529,951, making a total of £2,698,022; the exports of apparel and haberdashery at £6,466,080. The sum total for textile manufactures was £99,723,811. The total value of the iron and steel exports was £24,639,643, of which £2,892,373 represent pig iron, £1,084,373 bar, angle, bolt, and rod iron, £3,858,784 railroad iron of all sorts, £866,593 wire, £3,037,279 tin plates, £3,458,758 hoops, sheets, and plates, £4,885,275 cast and wrought iron of all kinds, £239,185 old iron, and £4,317,073 steel and manufactures of steel and mixed steel and iron. This does not include the exports of hardware and cutlery, valued at £2,107,264, or of machinery, valued at £16,282,085. The principal other exports are copper goods, of the value of £2,530,265; coal, coke, and fuel, of the value of £16,659,294; and chemical products, of the value of £8,674,864.

The quantity of butter imported in 1897 was 3,217,801 hundredweight; of margarine, 936,543 hundredweight; of cheese, 2,603,608 hundredweight; total, 6,757,952 hundredweight, valued at £24,288,827. The imports of dairy products have increased nearly a third in seven years; those of butter a full third; while margarine imports have declined.

The imports of gold in 1897 were £30,808,858, and the exports £30,808,571. The imports of silver £18,032,090, and the exports £18,780,988.

British economists and merchants have long been alarmed at the invasion of markets that were once exclusively British, by the manufactured products of Germany. The total value of British domestic exports in 1897 was still one third greater than the value of the similar exports of Germany. American competition has also cut into the export trade to many countries, and the exports to the United States have greatly declined. While the exports of the United States since 1891 have increased 18 per cent., those of Great Britain have decreased 5 per cent. The loss of £2,600,000 in the year ending Oct. 31, 1898, is attributed chiefly to the new American tariff.

Navigation.—The number of vessels engaged in foreign commerce entered at the ports of the United Kingdom in 1896 was 63,058, of 42,477,000 tons, of which 38,393, of 30,290,000 tons, were British, and 24,665, of 12,188,000 tons, were foreign. The number cleared was 63,239, of 85,462,000 tons, of which 38,830, of 61,472,000 tons, were British, and 24,409, of 23,991,000 tons, were foreign. The tonnage of vessels entered with cargoes was 33,480,000, of which 24,630,000 tons were British and 8,850,000 tons were foreign. The tonnage of vessels cleared with cargoes was 37,703,000, of which 27,726,000 tons were British and 9,977,000 tons were foreign. Of a total foreign tonnage of 23,990,288 tons entered and cleared, Norway had 5,883,467 tons; Germany, 3,823,168; France, 2,397,839; the Netherlands, 2,470,188; Denmark, 2,265,153; Sweden, 2,236,332; Spain, 1,364,003; Belgium, 1,179,646; the United States, 768,597; Russia, 693,455; Italy, 279,237; and Austria-Hungary, 237,818.

The tonnage entered and cleared at the port of London was 15,582,195 tons; at Cardiff, 10,905,144; at Liverpool, 10,883,024; at Newcastle, 4,604,104; at Hull, 4,011,909; at North and South Shields, 3,857,468; at Glasgow, 3,191,707; at Southampton, 2,998,254; at Newport, 2,385,675; at Middlesboro, 2,016,807; at Sunderland, 1,801,208; at Leith, 1,792,682; at Grimsby, 1,556,745; at Swansea, Grangemouth, Kirkcaldy, and Bristol, more than 1,000,000 tons each.

The number of vessels registered as belonging to

the United Kingdom on Jan. 1, 1897, was 20,796, of 9,030,282 tons, divided into 12,274 sailing vessels, of 2,735,976 tons, and 8,522 steamers, of 6,284,306 tons. The number of seamen employed was 242,039, of whom 33,046 were foreigners. The total number of vessels belonging to the British Empire was 35,735, of 10,508,307 tons. The number of vessels built and first registered during 1896 was 931, of 519,970 tons, divided into 389 sailing vessels, of 57,467 tons, and 542 steamers, of 462,503 tons. Of the total number of vessels belonging to the United Kingdom, 7,086 sailing vessels, of 449,192 tons, and 2,752 steamers, of 421,404 tons, were employed in the home trade and the adjacent seas; 220 sailing vessels, of 24,640 tons, and 294 steamers, of 232,297 tons, were employed partly in the home and partly in the foreign trade; and 1,686 sailing vessels, of 2,144,235 tons, and 3,701 steamers, of 5,661,572 tons, were employed exclusively in the foreign trade.

Communications.—The total length of railroads open to traffic in the United Kingdom on Jan. 1, 1897, was 21,277 miles, of which 14,708 miles were in England and Wales, 3,391 miles in Scotland, and 3,178 miles in Ireland. The paid-up share and loan capital amounted to £1,029,475,333. The number of passengers carried during 1896 was 980,339,433, exclusive of holders of season tickets. The receipts from all sources were £90,119,122, of which £39,120,865 came from passengers and £46,175,335 from freight; working expenses, £50,192,424, equal to 56 per cent. of the gross receipts.

The number of letters that passed through the British post office during the year ending March 31, 1897, was 1,893,000,000, of which 1,606,500,000 were delivered in England and Wales, 168,500,000 in Scotland, and 118,000,000 in Ireland, being 48 per head of population for the whole United Kingdom, 52 for England and Wales, 40 for Scotland, and 26 for Ireland. The number of postal cards for the United Kingdom was 336,500,000; of book packets, 697,900,000; of newspapers, 150,600,000; of parcels, 63,700,000; of money orders, 10,921,617, for the total amount of £30,249,087, of which 9,314,022, for £25,918,853, were inland orders; of postal orders, 67,182,998, for the gross amount of £24,826,874. The receipts of the postal service were £12,146,985, and the expenses £8,253,112, leaving a net revenue of £3,893,823. The telegraph receipts from paid messages were £2,967,353, and expenses £3,108,065, leaving a deficit of £140,714.

The total length of telegraph lines on March 31, 1897, was 41,393 miles, with 279,935 miles of wire. The number of messages in 1897 was 79,423,556, of which 66,950,409 were English, 8,094,860 Scotch, and 4,378,787 Irish.

The Session of Parliament.—The fourth session of the fourteenth Parliament of Queen Victoria and the twenty-sixth Parliament of the United Kingdom was opened on Feb. 8, 1898. In the Queen's speech an expenditure beyond precedent was declared to be necessary in order to provide adequately for the defense of the empire in view of the enormous armaments maintained by other nations. The promised measure for the organization of a system of local government in Ireland was described as substantially similar to that established in Great Britain. Proposals were announced having for their object to secure increased strength and efficiency in the army and amending the conditions of military service. The bill for enabling accused persons to be heard as witnesses in their defense was revived, as well as the one to improve the procedure in Scottish private-bill legislation. A measure was announced for facilitating the creation of municipalities in the administrative county of London. A bill to amend the vaccination law was recommended as important. Minor proposals were

to prevent certain recognized abuses in connection with Church patronage, to constitute a teaching university for London, to amend the prison act, to deal in part with the subject of secondary education, to amend the law relating to the mercantile marine fund, to guard against fraud in the management of limited companies, to facilitate the ascertainment of the rights of landlord and tenant on the termination of an agricultural tenancy, and to prevent the adulteration of drugs and food.

The session came to an end on Aug. 12. Out of more than 800 public bills submitted to Parliament only 62 finally received the royal assent, and of these about half were Scotch and Irish bills or were only of local or limited application. Those of general interest comprised new departures in the laws of Church patronage, habitual drunkenness, prison discipline, and compulsory vaccination, besides the criminal-evidence act, a vagrancy act, a locomotive act, two merchant shipping acts, and other amendments of previous statutes not so important.

The Irish local self-government bill was foreshadowed by Mr. Balfour in the previous session, when he withdrew the Irish agriculture and industries bill and the Irish poor-law relief bill. His plan for giving the proposed county and district councils control of the rates and local institutions, and at the same time neutralizing the power of these elective bodies to impose undue burdens on the landowners, was at the time accepted in principle by all Irish members, both Unionists and Nationalists. The bill was carried through without serious opposition from either party, except in regard to some details. The poor-law system is modified by the abolition of all official members. In holdings under £4 rental valuation, where the landlord has paid the whole of the poor rate, he will be liable for half which is deducted from the rent. As he has no control over the boards of guardians, it is provided that his liability must not exceed half the rate assessed in 1897 and that the new county councils must limit the expenditure on roads to the average for the preceding three years plus 25 per cent. Ministers of religion are ineligible to the new bodies. The representatives of the landlords were further appeased by a contribution from the imperial treasury in relief of rates. The act consolidates the poor rate and the county cess into a single tax which is paid by the occupiers. Half the poor rate, which the owner paid previously, and half the county cess, which the tenants bore, are met by a grant out of the imperial exchequer, estimated at £780,000 a year. The financial powers previously vested in grand juries are transferred to county councils, elected on the parliamentary franchise, with the addition of peers and women. Urban and rural-district councils and boards of guardians are elected in the same way. Amendments to the Irish land law were recommended by a commission appointed in 1897, which proposed the abolition of the concurrent jurisdiction of county courts in fixing fair rents and the elevation of the sub-commissioners and court valuers to the rank of permanent officials, to be selected from a list approved by some higher and independent authority and subjected to a test as to their qualifications. The uncertainty and instability of the fair rent and the costly process of fixing it periodically the commissioners would obviate by an automatic method of determining the true value or by converting the landlord's interest into a fixed rent charge. The failure of the potato crop in some of the western districts of Ireland was treated by the Government with such seeming indifference as to draw indignant reproaches from all sections of the Nationalists and intercessions from Irish Unionists. The Irish Secretary, Gerald Balfour, would only agree to supple-

ment the poor-law relief with Government aid not to exceed three fourths of the whole, granted on the condition that the guardians applied the labor test. For the next crop Parliament voted to supply seed and the Government furnished implements for spraying potatoes to the boards of guardians in the famished districts. Mr. Davitt's motion charging that no adequate means had been taken to avert starvation was rejected by 235 votes to 133. On June 7 the celebration by Nationalists of the anniversary of the battle of Antrim produced Orange riots in Belfast more serious than had occurred since 1886, necessitating the occupation by troops of some quarters of the town. As in former disturbances, public houses were looted and the street pavements were torn up to furnish cobblestones, which are the favorite weapons of the Belfast rabble. When Sir William Harcourt declined to support Mr. Redmond's amendment to the address asserting the Irish claim for an independent Parliament and Executive, and when the amendment was defeated by an enormous majority, the separation between the Irish Nationalists and the British Radicals, which began in 1897 on the education question, was made apparent. When Irish representatives brought up the question of financial relations, urging that Ireland was overtaxed, a part of the Liberals sustained the view of the Government, as also on the question of local government. On the question of a Catholic university for Ireland the leader of the house conceded the claim of the Irish party, but put off the matter until local government was out of the way.

The criminal-evidence bill deals with a subject that has been brought before Parliament many times in the past twenty-five years. It had the support of a majority of the judges and legal practitioners. Previous statutes allow a prisoner to be heard in certain cases, dependent often on the form of the indictment. Some feared that the present act by allowing him to be cross-examined on questions of character would place him at the mercy of the prosecuting attorney; hence limits were set to the questions that can be put to him. He can not be questioned about other offenses than the one charged nor as to bad character. The bill contains a clause enabling a wife to give evidence in behalf of her husband or a husband in behalf of his wife. Neither the prisoner nor the wife or husband can be called as a witness except on the prisoner's own application. The power of the person charged to make an unsworn statement not subject to cross-examination remains intact. The person charged or the wife or husband can give testimony at any stage of the proceedings, but if the prisoner is the only witness for the defense he is to be called immediately after the close of the prosecution. The act applies to England and Scotland, but not to Ireland.

The London municipalities bill, which was not proceeded with, was violently opposed by the Progressives, who, when it was first adumbrated by Lord Salisbury, saw in it a design to rob the county council of its chief powers and return practically to the old system of parishes in order to frustrate the policy which the local allies of the Tory party were unable to defeat in the county elections. The special juries act abolishes the numerical limit of 48 fixed for the panel by former legislation, and leaves it to the sheriff to decide what is a sufficient number of persons to be summoned to the assizes as special jurors. The prison act amalgamates the convict prison directors with the prison commissioners, establishes visitors to convict prisons, directs that prisoners for debt or for nonpayment of fines are not to be placed in association with criminal prisoners or obliged to

wear prison dress, and empowers the Home Office to make rules for the treatment of prisoners, which are to be submitted to Parliament, and which must have regard for the sex, age, health, industry, and conduct of prisoners and not prescribe corporal punishment except in special cases.

The inebriates act provides that an habitual drunkard, admitted by himself or found by a jury to be such, on being convicted of an offense committed under the influence of drink, may be committed to a state or certified inebriate reformatory, to be detained there in addition to or in lieu of any other sentence. The Secretary of State has power to establish state reformatories and to certify reformatories established by county or borough councils or others of fit character. Both the treasury and the borough or county councils may contribute toward the expenses of certified reformatories. A person committed to a reformatory is maintained at his own charge provided he has an estate more than sufficient to maintain his family. The existing retreats for habitual drunkards are licensed no longer by the justices, but by the county or borough councils, and a person committed under the habitual-drunkards act may be detained in such a retreat for the maximum period of two years, instead of one year. The libraries act makes it a misdemeanor to be disorderly or abusive or to gamble in a public library or in the library of a provident or friendly society or a trade union.

A new vagrancy act makes a man who lives on the earnings of prostitution liable to be sentenced as a rogue and a vagabond to three months' hard labor, and on a second conviction to be whipped, the whipping clause being preserved just to meet such cases. A bail act enables justices of the peace, although they may decide that a person ought to be indicted and tried at assizes or quarter sessions, to dispense with sureties for his appearance at trial unless it tends to defeat the ends of justice. The importation of fictitious foreign postage stamps and of lottery advertisements is prohibited in the customs and inland revenue act of 1898, which also requires an account of importations of diamonds. One of the shipping acts makes the owner responsible for damages caused by his ship previous to its registration; the other establishes a general lighthouse fund and enacts that light dues are to be levied by periods or by voyages, and not according to the number of lights that a ship passes. The reserve forces and militia act enables first-class reservists of good character, up to the number of 5,000, to agree to serve in the permanent army during the first twelve months of their reserve service, and also permits the militia to volunteer for foreign service.

The companies act of 1867 provided that shares must be paid for in cash unless a contract stating the fact of their allotment for goods or other valuable consideration shall have been filed with the registrar of joint-stock companies. The new act extends relief in cases when the company or person interested satisfies the court that the failure to register a contract was accidental, or where it is found just and equitable to grant relief. A superannuation scheme was enacted for elementary-school teachers, who are only admitted to the benefits of the fund on proving their physical capacity to the education department at the time of receiving their certificates and contribute at the rate of £3 a year for men and £2 for woman teachers. The superannuation allowance begins at the age of sixty-five.

The church benefices act invalidates the transfer of the right of patronage unless it is registered, unless twelve months have elapsed since the admission of the last incumbent, and unless the whole

interest is transferred. This puts an end to sales of next presentations. The sale by auction of a benefice is forbidden, unless at least 100 acres of land go with it. All agreements to exercise the right of patronage in favor of a particular person, or to transfer the right of patronage for payment previous to a vacancy, or for resignation in favor of a particular person, are declared invalid. An incumbent may, however, promise to resign in favor of a relative of the patron. The declaration against simony is made so stringent that persons of good character can no longer indulge in practices that are simoniacal, being to the effect that the clergyman has not received the presentation in consideration of any sum of money, reward, gift, profit, or benefit, directly or indirectly given by him, or by any one for him, to any one, and will not perform any contract made in respect to the presentation without his knowledge. The bishop, who formerly had power to refuse institution only to presentees not in priest's orders, unorthodox, illiterate, or of extremely bad character, can now withhold it on the possibility of a corrupt presentation if a year has not elapsed since the last transfer of the right of patronage, or on account of the inexperience of a presentee who has not been ordained as deacon longer than three years, or on grounds of his unfitness by reason of physical or mental infirmity, serious pecuniary embarrassment, grave misconduct, neglect of duty in an ecclesiastical office, or evil life. The marriage act dispenses with the presence of a registrar at other places of worship than churches of the Church of England, permitting any authorized person certified as such by the trustees of a place of worship to take the declarations required to be made before the registrar hitherto, but if the parties desire the presence of the registrar he is bound to attend. Similar rights have long been enjoyed by the Society of Friends and Jewish congregations, but not by nonconformists in general nor by Roman Catholics. The University of London act appoints Lord Davey, the Bishop of London, Sir William Roberts, Sir Owen Roberts, Prof. Jebb, Dr. Michael Foster, and E. H. Busk commissioners to make statutes and regulations for the proposed university, which will recognize as teachers of its staff duly qualified teachers and lecturers giving instruction of a university type in public educational institutions within a radius of 30 miles, whether such institutions be schools of the university or not. The Inns of Court and the Law Society have power to appoint members of the senate, but do not lose their rights and privileges.

The vaccination act was founded on the recommendations of a royal commission which studied the subject from 1889 to 1896, and finally in its majority report dissented from the policy of compulsory vaccination, which has been the law since 1853. It was found that among the class for which it was established it has declined in favor, and that 25 per cent. of the elected guardians of the poor neglect to enforce it, with the result that there are hundreds of thousands of unvaccinated persons. The new act does not abrogate the compulsory clause, but directs that it shall not be enforced in cases where the child's parents or guardians have a conscientious belief that vaccination would be dangerous to the child, also that no person shall be subjected more than once to the penalties for disobedience of the act. The period within which a child must be vaccinated is extended from three months to six months from its birth, and the public vaccinators are required, if requested, to go to the child's home to vaccinate it, instead of the parent being obliged to take the child to the public place of vaccination, though in cases of serious risk of

smallpox the local government board still has power to establish public stations. In case of nonvaccination within four months from birth the public vaccinator is directed to visit the child's home and offer to vaccinate. The local government board is required to issue for public vaccination only glycerinated calf lymph, unless a still safer and more efficacious kind shall be discovered hereafter. The use of calf instead of child lymph prevents the transmission of human infectious diseases, while the glycerin destroys all known germs except the vaccine germ itself. Mr. Chaplin, who had charge of the bill, resisted the proposal practically to destroy the principle of compulsory vaccination by allowing the conscientious objections of parents to nullify the law. Mr. Balfour, however, took the matter out of his hands, and even receded from the proposal of letting magistrates decide on the good faith of the objector, admitting as sufficient a mere declaration. The House of Lords, only 78 being present, struck out the whole clause by a majority of 2, but the Government mustered enough Conservative peers subservient to the claims of party to carry the clause by a majority of 10 after the Commons reinserted it.

A resolution offered by Mr. Seton-Karr, an advocate of national granaries, was carried on April 6, 1897, on being accepted in behalf of the Government by Mr. Balfour, who at the same time indicated his belief that the maintenance of a strong navy offered the best guarantee for adequate provision of foodstuffs. The resolution only went so far as to declare that the dependence of the United Kingdom on foreign imports for the necessities of life and the consequences that might arise therefrom in the event of war demand the serious attention of the Government. When wheat suddenly rose in price upon the outbreak of hostilities between Spain and the United States, the author of the resolution brought up the subject again, pointing out that five sixths of the grain consumed in the United Kingdom is imported, whereas France produces a sufficient supply for her people; Germany, Austria, and Italy grow three fourths of what their people consume in time of peace, and in war time can manage to support themselves; and Russia and the United States are large grain-exporting countries. The Government still held the opinion that so long as England held the seas her commerce would provide a continuous supply of food for her people. A colonial loans bill to extend the credit of the Imperial Government to the colonies and enable them to refund their debts and make fresh ones on better terms than they can get unaided was strenuously opposed by the Radicals, and by some of the Government party was considered so risky a financial innovation that it was withdrawn. The report of the petroleum committee, recommending the raising of the legal flash point from 73° F. by the Abel test, which is equivalent to 100° by the open test, to 100° by the Abel test, was dictated less by real considerations of public safety than by a desire to aid the depressed Scotch paraffin industry, and help the sale of Russian oil to the exclusion of the better and cheaper American illuminant.

The reduction of postal rates to the colonies to one penny a half ounce as the result of an imperial conference was ordered by the Postmaster-General without having to apply to Parliament. This imperial penny postage was established for Canada, Newfoundland, Cape Colony, Natal, and such of the Crown colonies as may be willing to adopt it, but the Australian colonies, having for revenue purposes raised their own rates to twopence, were unable to enter into the arrangement. The report of a parliamentary committee which investigated the usury and extortion practiced by

money-lenders, recommended that the courts should have absolute and unfettered discretion to review the transactions of professional money-lenders, to hear such cases in private, and to grant whatever relief they deem equitable. It is also proposed that money-lenders shall be registered, paying a fee of £5 a year. The discussion of foreign, colonial, and Indian questions took up more of the time of Parliament than in any previous session. The Liberals pursued the polemic advantage they derived from attacking the forward policy in India, and attributing the frontier war to the reversal of their decision to evacuate Chitral. On the charge of breach of faith to the Afridis the Government was sustained by 311 votes against 208. Samuel Smith's proposal that the cost of the frontier war should be paid by the British Government was met by the explanation that the Indian Government had declined to accept aid, being capable of dealing with the financial situation and unwilling to admit what might lead to further interference by Parliament. The debt of the Egyptian Government to the British exchequer of £798,802, being the advance made to defray expenses of the Dongola expedition when the Caisse de la Dette refused to allow the reserve fund to be diverted for this purpose, was remitted by a vote of 155 to 81 on the representation that the Egyptian Government would be able to pay for the Khartoum expedition. The Irish Nationalists were as disunited as ever and unable to settle the rival claims of Mr. Dillon, Mr. Healy, and Mr. Redmond to the mantle of Charles Stewart Parnell. In the Liberal party a serious division arose over the questions of Imperial expansion, increased armaments, and an aggressive foreign policy, which became irreconcilable toward the end of the year when Lord Rosebery and Mr. Asquith praised the attitude of the Government in the Fashoda dispute (see FRANCE), and led to the resignation of the leadership in the House of Commons by Sir William Harcourt in December. Dissensions in the Conservative party showed themselves earlier, owing chiefly to dissatisfaction with Lord Salisbury's Chinese policy, and the opposite views enunciated by him and Joseph Chamberlain afforded to the Opposition opportunities for satirical comment. The firm position that the Prime Minister took in regard to the Nile valley went far toward healing the breach.

Colonies and Dependencies.—The estimated area of the British Empire is 11,371,391 square miles, with an aggregate population of 383,883,685. This includes British India, with an area of 1,068,814 square miles and 221,172,952 inhabitants, and the feudatory states of India, with an area of 731,944 square miles and 66,050,479 inhabitants. The area and estimated population of the British colonies are given in the following table:

COLONIES.	Square miles.	Population.
Gibraltar	2	20,658
Malta and Gozo	119	176,231
Aden and Perim	80	41,910
Ceylon	25,365	3,006,466
Hong-Kong	30	261,258
Labuan	30	5,853
Straits Settlements	1,472	558,935
Cape Colony	292,000	1,621,550
Basutoland	10,293	250,000
Mauritius	705	374,940
Natal	32,900	778,000
St. Helena	47	3,890
West African colonies	58,771	1,647,000
Canada	3,815,647	4,883,300
Falkland Island and South Georgia	7,500	1,950
British Guiana	109,000	278,280
British Honduras	7,562	33,800
Newfoundland and Labrador	162,200	208,000
West Indies	12,009	1,511,700
Australasian colonies	3,173,558	4,793,900
Total colonies	7,309,754	20,625,691

The protectorates and spheres of influence in Africa have an area estimated at 2,120,000 square miles, with 35,000,000 population, and in Asia there are protectorates covering 120,400 square miles, with 1,200,000 population, and about 10,000 inhabitants on the protected islands in the Pacific Ocean, making the total area of protectorates 2,240,400 square miles and their population 36,210,000.

Most of the inhabitants of Gibraltar are descendants of the early Genoese settlers. The local revenue in 1896 was 1,581,785 pesetas, and expenditure 1,508,705 pesetas. The military expenditure of the Imperial Government was £261,388. The tonnage of vessels entered was 4,384,582, of which 3,361,273 was British. The Governor is Gen. Sir Robert Bid-dulph.

The population of Malta is divided into 172,334 Maltese, 2,092 English, and 1,805 others. The revenue for 1896 was £313,680, and expenditure £308,902. The imports were valued at £10,472,139, and exports at £11,886,149. The number of vessels entered was 3,786, of 3,293,200 tons; cleared, 3,767, of 3,291,148 tons. There are 7½ miles of railroad. The Governor is Sir Arthur James Lyon Fremantle.

Cyprus is a Turkish island in the Mediterranean which was transferred to British administration by a convention made with the Porte on June 4, 1878. It has an area of 3,584 square miles and a population of 209,286, consisting of 47,926 Mohammedans and 161,360 Greek Catholics and others. The revenue in 1897 was £188,658, and the expenditure £129,494. An annual tribute of £92,800 is paid to the Porte. The British Government makes an annual grant in aid, amounting in 1897 to £46,000. The imports in 1896 were valued at £240,051; exports, £297,142. The vessels entered and cleared had an aggregate tonnage of 887,997. There are 240 miles of telegraph lines.

Aden, a peninsula on the coast of Arabia, is an important coaling station on the route to India or Australia. The imports in 1897 were 41,030,906 rupees by sea and 3,027,706 rupees by land; the exports, consisting of coffee, gums, hides, and tobacco from Arabia and the neighboring districts of Africa, were 32,603,265 rupees by sea and 2,084,123 rupees by land. The number of vessels entered was 1,256, of 2,416,266 tons. Subordinated to Aden is the opposite Somali coast, also the African island of Sokotra, having an area of 1,382 square miles and 12,000 population, and the Kuria Muria guano islands. The Bahrein Islands, whose inhabitants number about 25,000, largely engaged in the pearl fishery, are in the Persian Gulf. The imports in 1895 were valued at £387,010, and exports at £389,258.

British North Borneo is a protectorate in which tobacco similar to the Sumatra leaf is planted on a large scale, also coffee and pepper, 1,000,000 acres having been taken up by planters. The area is 31,106 square miles, with 175,000 inhabitants. The revenue in 1896 was \$411,699, and the expenditure \$300,559. Imports were valued at \$1,882,188, and exports at \$2,473,753. The tobacco exports were \$1,372,277. The tonnage, nearly all of it British that was entered in 1896 was 54,321; cleared, 53,596 tons. There is a military force of 350 natives under English officers. A protectorate has been extended over the sultanates of Brunei, area 3,000 square miles, and Sarawak, area 50,000 square miles. The Rajah of Sarawak is Sir Charles Johnson Brooke, nephew of the Englishman who founded a state there composed of Malays and the native Dyaks, and other races. The population is about 300,000. The revenue is 1896 was \$508,771, and the expenditure \$565,796. The imports were valued at \$3,701,394, and exports at \$3,557,868. The colony of Labuan was placed in 1889 under the administration of the British North Borneo Company, the

chartered company which has jurisdiction over these territories. The Governor of North Borneo, whose appointment by the Board of Directors in London must be confirmed by the Secretary of State for the Colonies, is Leicester Paul Beaufort.

Ceylon has had since 1833 a representative government. The Governor, who is Sir Joseph West Ridgeway, appointed in 1896, is assisted by a Legislative Council containing 9 official members and 8 representatives of the different classes and races of the island. The population in 1891 consisted of 877,043 Buddhists, 615,932 Hindus, 302,127 Christians, and 211,995 Mohammedans. There were 474 Government schools in 1896, with 44,538 pupils, 1,130 state-aided schools, with 94,400 pupils, and 2,268 unaided schools, with 36,720 pupils. The revenue for 1896 was 21,974,573 rupees; expenditure, 21,237,860 rupees. The public debt, incurred entirely for public works, was £3,519,508 in 1896, not including a debt of 3,290,595 rupees raised in the colony. The sum of 2,449,685 rupees was spent out of the general revenue in extending public works in 1896. There are 297 miles of railroads. For the maintenance of the British garrison the colonial Government pays £81,750 a year.

The value of the imports in 1896 was 87,788,085 rupees, and of the exports 87,841,357 rupees. The chief exports were tea, valued at 53,212,676 rupees; cocoanut products, valued at 11,178,077 rupees; plumbago, valued at 3,069,021 rupees; coffee, valued at 1,721,133 rupees; areca nutes, valued at 1,116,656 rupees; and cinchona, valued at 68,849 rupees. The total tonnage entered and cleared during 1896 was 7,079,678. The Maldives Islands, having a population of 30,000 Mohammedans, are a dependency of Ceylon.

Hong-Kong was a Chinese port until it was annexed by Great Britain in 1841. It is a military and naval station of the first class and the center of British commerce with China and Japan. The Governor is Sir Henry A. Blake, appointed in 1897. The population in 1897 was 245,000. The immigration from China in 1896 was 119,468; emigration, 66,822. The number of births in 1896 was 1,233, and of deaths 5,860. The ordinary revenue for 1896 was \$2,250,179, not including \$359,698 of premiums from land and water account; expenditure, \$2,405,399, not including \$300,130 of extraordinary expenditure for defensive works and the water account. The revenue is derived from land, taxes, licenses, and the opium monopoly. The public debt of \$341,800 is exceeded by the assets. The colonial contribution for military in 1896 was \$523,128. The British naval squadron on the China station numbers about 20 vessels.

The Straits Settlements is a Crown colony embracing Singapore, Penang, with Province Wellesley and the Dindings, and Malacca. There is a Legislative Council composed of 10 official and 7 nonofficial members. The Governor since 1898 has been Lieut.-Col. Sir C. B. H. Mitchell, who was appointed in 1896 High Commissioner for the federation of the protected states Perak, Selangor, Negri Sembilan, and Pahang, to which Sir F. A. Swettenham was appointed Resident General. The population of the Straits Settlements includes 213,073 Malays, 227,989 Chinese, and 53,927 British Indian subjects. There were 199,288 Chinese immigrants in 1896, and 20,150 Indian immigrants, including 2,652 indentured laborers, while 12,977 persons returned to India. The revenue for 1896 was \$4,266,064, derived from licenses, land, stamps, the post office, and navigation dues. The expenditure was \$3,957,090, of which \$1,459,269 were for salaries, \$900,190 for military, \$428,984 for public works, \$93,041 for education, \$91,814 for police, \$64,120 for the marine department, and \$13,971 for

transport. The debt amounted in 1897 to \$1,016,122, while the assets were \$3,344,564. The colony has built a new harbor at Singapore and protected it with a row of forts erected at a cost of £100,000. The value of the imports in 1896 was \$201,343,700, and of exports \$173,720,814. The chief imports were rice, cotton goods, opium, fish, coal, tobacco, and provisions. The exports of tin were valued at \$28,926,105; of spices, \$7,744,426; of gambier, \$7,509,285; of gums, \$6,929,181; of copra, \$4,455,936; of rattan, \$4,304,413; of tapioca, \$2,546,470. The number of vessels entered in 1896 was 8,728 of 6,119,475 tons, not counting 16,835 native craft of 596,438 tons. There were 2,913,760 pieces of mail matter received at the post office and 3,014,970 sent out in 1896. The expenditure of the colony for fortifications amounts to \$647,300. The annual imports average £4,000,000, and the exports £2,000,000. The foreign trade with China in opium, sugar, flour, salt, earthenware, oil, amber, cotton goods, sandalwood, ivory, betel, and a large share of the Chinese silk and tea trade is conducted by Hong-Kong firms. The registered shipping consists of 19 sailing vessels, of 5,659 tons, and 32 steamers, of 18,715 tons. There were 4,674 vessels, of 6,164,057 tons, entered in 1896, an increase of 392,759 tons over 1895. This does not include the junks and native vessels, of which an average of 52,000, with a tonnage of 1,300,000, visit Hong-Kong each year. Attached to the Straits Settlements are the Cocos Islands, near Sumatra, which produce cocoanuts in large quantities, and Christmas island, southwest of Java. The area of Perak is about 10,000 square miles, with 214,254 inhabitants. The revenue in 1896 was \$3,960,871, and expenditure \$3,989,376. Selangor, with an area of 3,500 square miles and a population of 81,592, had a revenue of \$3,756,936 and \$3,572,583 of expenditures. Sungei Ujong, with Jelebu, is 1,200 square miles in extent and contains 23,602 inhabitants. The area of the other states composing Negri Sembilan is 1,800 square miles and their population 41,617. The revenue of Negri Sembilan in 1896 was \$555,829; expenditure, \$573,569; debt, \$503,119. Johore, where a British agent has resided since 1887, covers 9,000 square miles, with 200,000 population. The territory of the Sultan of Pahang has an extent of 10,000 square miles, with 57,462 population; the revenue in 1896 was \$160,947, the expenses \$462,619, and there was a debt of \$2,103,739. The revenue of these states is derived chiefly from export duties on tin. There are 175 miles of railroads in the native states, and 28 miles are under construction. The exports of tin from Perak in 1896 were 22,754 tons; from Selangor, 20,391 tons; from Sungei Ujong and Jelebu, 3,440 tons. Gold exists in several of the states. Pepper, gambier, sugar, rice, and coffee are grown on the peninsula.

Ascension, a small volcanic island in the south Atlantic, is a coaling and victualing station for the British navy and a sanitarium for sailors suffering from fever contracted on the west coast of Africa. St. Helena is a port of call for vessels passing around the Cape of Good Hope. The people of the island are gradually leaving it to go to South Africa or the United States.

Mauritius, a former French colony, has a Council of Government consisting of 27 members, of whom 8 are official, 9 nominated, and 10 elected. The present Governor is Sir Charles Bruce. The sugar plantations are worked by the labor of Indian coolies, of whom there were 259,004 in 1897 in a total population of 374,942. The rest of the population includes African natives and Chinese and mixed races with the French creoles. The revenue in 1896 was 8,849,181 rupees; expenditure, 8,544,736 rupees. The debt is £1,337,801. The value of

the imports in 1896 was 22,980,586 rupees, and of the exports 33,544,174 rupees. The exports of raw sugar amounted to 28,165,731 rupees. Other exports are rum, aloe fiber, vanilla, and cocoanut oil. There are 105 miles of railroads, the earnings of which in 1896 were 1,783,399 rupees, and the expenses 1,205,645 rupees. The Chagos Islands, Rodrigues, and the Seychelles are dependencies of Mauritius. Among the groups and islands scattered over the Pacific Ocean that have been annexed or taken under British protection are Cook's Islands, having an area of 142 square miles and 8,400 population, Ducie and Pitcairn islands, the Manihike group, Suvarof Islands, Dudoza island, the Union group, the Bowditch and Phoenix groups, Ellice Islands, the Gilbert Islands, the Solomon Islands, and the isolated islands of Fanning, Malden, Starbuck, Jarvis, Washington, and Palmyra. In June, 1898, the British flag was raised over the Santa Cruz and Duff groups, lying east of the Solomon Islands in 10° of south latitude and 167° of east longitude. The Falkland Islands in the South Atlantic, east of Terra del Fuego, had 1,992 inhabitants in 1896, engaged mostly in sheep raising. The revenue in 1896 was £12,358; expenditure, £13,569. The value of the imports was £69,965, and of the exports £132,194.

The Bermudas, with an area of only 20 square miles, had a population in 1896 of 6,117 whites and 9,835 colored. The number of marriages was 100; of births, 523; of deaths, 375. The Governor is Lieut.-Gen. G. Digby Parker. He is assisted by an Executive Council of 6 members, a Legislative Council of 9 appointed members, and a Legislative Assembly of 36 members chosen by 1,123 registered voters. The revenue in 1896 was £34,256; expenditure, £34,717. There is a debt of £46,600. The value of the imports, consisting largely of food-stuffs from the United States, was £304,970 in 1896, and that of the exports, mainly going to the United States, was £108,613, of which £54,843 represent onions, £12,431 lily bulbs, and £18,817 potatoes. The tonnage entered and cleared in 1896 was 391,475. The registered shipping consisted of 23 sailing vessels, of 5,469 tons, and 2 steamers, of 651 tons.

British Honduras has an Executive Council, consisting of 4 official and 8 non-official members, and a Legislative Council, consisting of 3 official and 5 nonofficial members, to assist the Governor. The Governor at present is Col. Sir David Wilson. The revenue in 1896 was \$302,686, and expenditure \$269,877. The debt was \$163,815. The population in 1896 was estimated at 33,811, consisting of 453 whites and 33,358 colored. The number of marriages in 1896 was 288; of births, 1,435; of deaths, 977; excess of births, 458. The value of the imports in 1896 was \$1,462,637, and of exports \$1,378,601. The staple products are mahogany and logwood. Sugar is also exported, and bananas and cocoanuts to New Orleans, and there is a considerable transit trade in coffee, sarsaparilla, and rubber from Yucatan. There were 576 vessels, of 178,199 tons, entered, and 562, of 170,867 tons, cleared in 1896. The shipping of the colony consists of 214 sailing vessels, of 4,570 tons, and 5 steamers, of 748 tons.

British Guiana has a Court of Policy, consisting of 7 official and 8 elected members, to assist the Governor in general legislation, and to this 6 financial representatives are added to form the Combined Court, which frames the budget and levies the taxes. There are 2,416 qualified electors. The Roman-Dutch law is in force in civil cases, while the English system of criminal law has been adopted. The present Governor is Sir Walter J. Sendall. The area is undetermined on account of the boundary dispute with Venezuela. Within the

Schomburgk line there are 109,000 square miles. The population was estimated in 1897 at 285,315. In 1891 there were 2,533 European-born, 99,615 Africans, 105,465 East Indians, and 3,714 Chinese. The number of births in 1896 was 9,276; of deaths, 7,513. The Indian immigrants in 1897 numbered 2,380, while 2,059 coolies returned to India. The revenue for 1897 was \$555,774, and expenditure £590,616. Of the revenue, £294,671 were derived from customs, £108,859 from licenses, £49,780 from the duty on rum, and £23,902 from the royalty on gold. In the ten years from the beginning of gold-mining in 1886 there have been taken out the value of £2,796,300. The product in 1896 was 123,759 ounces. The total value of imports in 1897 was £1,341,710; of exports, £1,899,457. The principal exports were sugar for £1,098,398, rum for £136,927, molasses for £20,926, and gold for £466,143. The tonnage entered and cleared during the year was 694,229. The shipping of the colony consisted of 121 sailing vessels, of 5,541 tons, and 15 steamers, of 1,171 tons. There are 39 miles of railroad and 546 miles of telegraphs, all belonging to the Government. (See AUSTRALASIA, CANADA, CAPE COLONY and SOUTH AFRICA, EAST AFRICA, INDIA, NEWFOUNDLAND, WEST AFRICA, WEST INDIES.)

GREECE, a kingdom in southeastern Europe. The legislative authority is vested in a single chamber called the Boule, consisting of 207 members elected for four years by universal manhood suffrage. The reigning King is Georgios I, born Dec. 24, 1845, the second son of King Christian of Denmark. He was elected King of the Hellenes on March 18, 1863, after the deposition of King Otto, with the approval of France, Great Britain, and Russia, the protecting powers under whose auspices the Hellenic Kingdom had been established in 1830, after the overthrow of Turkish rule.

The Cabinet formed on Oct. 3, 1897, was composed as follows: President of the Council and Minister of Foreign Affairs, M. Zaimis; Minister of the Interior, M. Korpas; Minister of Finance, M. Streit; Minister of Justice, M. Toman; Minister of Education, M. Panagiotopoulos; Minister of War, Gen. Smolenski; Minister of Marine, Capt. Hadji Kyriacos.

Area and Population.—The present area of the kingdom is 25,014 square miles, and the population in 1896 was 2,433,806. There are more than 8,000,000 persons of Hellenic language and descent forming the Greek communities in the Ottoman Empire who are of purer Greek race than the Hellenes of the kingdom, which has been subjugated and settled at various periods by Romans, Goths, Slavs, and Albanians, all of whom became Hellenized in time. The population of Athens in 1896 was 111,486.

Finances.—The revenue was originally estimated for 1897 at 95,435,939 drachmai, of which 33,245,552 drachmai came from customs and excise, 19,792,864 drachmai from direct taxes, 18,676,775 drachmai from stamps and dues, 11,402,906 drachmai from monopolies, 3,731,862 drachmai from state property, 3,355,000 drachmai from arrears of taxes, 1,200,000 drachmai from municipal contributions, 1,023,000 drachmai from repayments; 966,650 drachmai from sales, 750,000 drachmai from international telegraphs, 400,000 drachmai from light-houses, 100,000 drachmai from schools, and 700,000 drachmai from extraordinary sources. The expenditure was estimated at 93,852,565 drachmai, of which 21,690,895 drachmai were for the public debt, 16,345,311 drachmai for the army, 18,930,935 drachmai for the interior, 8,963,478 drachmai for cost of collecting revenue, 7,000,487 drachmai for the navy, 5,742,600 drachmai for pensions, etc., 5,647,543 drachmai for public instruction, 5,364,325 drachmai for justice, 2,224,479 drachmai for foreign affairs, 1,523,972

drachmai for finance, 1,325,000 drachmai for the civil list, 490,320 drachmai for legislation, and 3,503,240 drachmai for other purposes. The war with Turkey necessitated a revision of the budget. The estimate of revenue was increased to 97,000,000 drachmai, and that of expenditure to 160,000,000 drachmai.

The consolidated debt on Jan. 1, 1897, was 155,000,000 drachmai payable in gold, and 31,801,295 drachmai payable in paper; amortizable debt, 470,034,822 drachmai in gold and 34,644,248 drachmai in paper; treasury bonds, 14,194,066 drachmai in gold and 14,000,000 drachmai in paper; and paper money of forced currency, 16,800,000 drachmai of gold notes and 88,200,000 drachmai, including 14,000,000 drachmai of fractional currency, payable in paper. The total was 656,028,888 drachmai of gold, and 168,645,543 drachmai of paper obligations. The annual interest on the external debt had been reduced by the action of the Government to 30 per cent., that on the monopoly loan to 43 per cent., and that on other internal debts to 33 per cent. of the agreed rates, making the annual interest charge 8,477,534 drachmai in gold and 4,520,158 drachmai in paper.

By the treaty of peace signed on Dec. 4, 1897, Greece agreed to pay to Turkey a war indemnity of £ T. 4,000,000. International control over Greek finances was imposed by the mediating powers, which were empowered by act of the Boule to appoint a commission of six members to control the collection of revenues and supervise the redemption of debt. The Government was authorized to raise loans to pay the Turkish indemnity, to cover the deficit of 1897, to pay off or convert into a gold debt the outstanding treasury bonds, and to make payments to the holders of the actual debt in gold; also to raise loans not to exceed 20,000,000 drachmai for the purpose of covering the deficits of 1898 and subsequent years. Besides converting the floating debt into gold obligations, it was intended to redeem every year a certain amount of the paper currency. It was provided that the Debt Commissioners should inspect and control all the financial accounts of the Government, and that in case of a disagreement arbitrators should be called in. The revenues from monopolies, the tobacco tax, stamps, and customs duties, estimated at a total of 89,600,000 drachmai a year, were assigned as security for the gold debt, together with supplementary customs duties yielding 7,200,000 drachmai a year. The total sum required to discharge the war indemnity, cover the deficits, and redeem the floating liabilities was estimated at 123,152,000 drachmai, not counting anticipated deficits of future years, for which 20,000,000 drachmai in gold would be required. The Debt Commission estimated the revenue for 1898 at 85,556,000 drachmai, and calculated on a gradual increase to 95,557,000 drachmai in 1901, and 100,260,000 drachmai in 1903. The ordinary expenses of the Government were estimated at 63,251,000 drachmai in 1898, rising to 64,151,000 drachmai in 1901 and 64,751,000 drachmai in 1903.

The Army and Navy.—All able-bodied Greeks are liable to military service for the nominal term of two years in the active army, after which they are enrolled for seven or eight years in the reserves, and for eight or nine years in the territorial militia. The peace strength of the army was fixed by the law of 1887 at 16,136 infantry, 4,877 cavalry, and 3,063 artillery and engineers; total, 24,076 men. There were 1,880 active officers in 1896. The war strength of the regular army is estimated at 82,000 men, and of the militia at 96,000 men.

The Greek navy consists of the belted cruisers "Hydra," "Spetsai," and "Psara," of 4,885 tons, each armed with 3 10.6-inch and 4 5.9-inch Canet

guns, 7 6-pounder quick firers, and 18 smaller guns, 3 older armor-clads, 4 small cruisers, 12 old gunboats, and 17 first-class torpedo boats.

Commerce and Production.—Zante currants are the most valuable commercial product of Greece, which supplies the world's requirements. About 7,000,000 bushels of wheat, 3,000,000 bushels of barley, and 5,000,000 bushels of corn and other grains are produced annually. Wine, olives, and silk are other important products. The product of olive-oil soap in 1896 was 8,240 tons. The mineral products include manganese and hematite iron, galena, zinc, and magnesite ores. The total value of the imports in 1896 was 113,162,400 drachmai, comprising wheat and meslin for 29,202,475, textile goods for 22,953,525, coal and raw materials for 14,243,825, timber for 5,386,675, fish for 4,864,025, sugar for 3,786,450, hides and skins for 3,862,775, and other articles for 29,362,650 drachmai. The total value of the exports was 69,989,425 drachmai, comprising currants for 23,208,175, ores for 14,617,675, wine for 5,337,575, fruit for 4,089,200, olive oil for 3,063,250, tobacco for 2,704,100, sponges for 1,622,750, silk and cocoons for 1,178,500, olives for 1,131,550, cognac for 951,700, soap for 437,550, emery for 287,275, leather for 231,800, and other articles for 11,108,325 drachmai.

The values, in drachmai, of the commerce with various countries in 1895 are shown in the following table:

COUNTRIES.	Imports.	Exports.
Great Britain	30,773,918	16,888,009
Russia.....	28,416,068	5,310,294
Turkey and Egypt.....	10,056,345	9,976,117
Austria-Hungary.....	13,886,716	5,857,306
France.....	6,791,082	7,974,573
Germany.....	8,440,379	5,086,449
Italy.....	2,448,802	6,840,565
Belgium.....	1,434,568	7,830,674
United States.....	3,707,316	2,349,758
Netherlands.....	467,093	3,107,459
Other countries.....	1,513,050	1,906,048
Total.....	109,610,303	72,188,221

Communications.—There were 591 miles of completed railroads in 1897, and 300 miles under construction. The telegraphs had a length of 5,065 miles, with 6,000 miles of wire. The number of dispatches in 1895 was 1,448,738, of which 941,565 were internal and 507,173 foreign; receipts, 2,107,464 drachmai. The post office transmitted 4,225,000 internal and 4,845,000 foreign letters and postal cards, and 5,165,000 internal and 2,838,000 foreign papers and samples; the receipts were 1,627,899, and expenses 1,605,584 drachmai.

Settlement of the Debt.—The result of the Turkish war left Greece practically at the mercy of the conqueror, with a defeated army, dangerous internal conditions, and finances, before disordered, now bankrupt. By the intervention of the powers peace was made saving Thessaly to Greece, but involving the payment of a large indemnity. The Porte would not agree to evacuate any territory until the first third of the indemnity was paid. Greece could borrow no money except on the condition of an international control. On July 9, 1897, M. Hanotaux proposed a guaranteed loan of £ T. 4,000,000, the amount of the indemnity. On Aug. 23 Lord Salisbury proposed to the French Minister of Foreign Affairs to inquire of the Greek Government as to what revenues would have to be hypothecated and what should be the organization of the control, and two days afterward he suggested that the loan of £ T. 4,000,000 be guaranteed by England, France, Russia, and any other powers that might be willing. An international commission, in which each of the six great powers was represented, was

appointed to inquire into the financial condition of Greece.

The Greek Government resisted the proposed international control, but at last gave way as the only means of securing a treaty of peace and the evacuation of Thessaly. Peace was signed with Turkey on Dec. 4. On Jan. 7, 1898, the financial commissioners made their report in the form of the draft of a proposed law, embodying the provisions for an arrangement with all the national creditors. On Jan. 8 the Greek Chamber met to hear the provisional budget of the Minister of Finance, who made the receipts 87,576,000 drachmai, reckoning a loss of 10,000,000 drachmai owing to the Turkish occupation of Thessaly, and the expenditures 87,251,000 drachmai, of which 21,445,000 drachmai were for expenses of the debt and 65,806,000 drachmai for the administration. No business could be done until the treaty with the powers was arranged, and the Chamber therefore adjourned. The majority refrained from overthrowing the ministers, being determined that they should complete all the humiliating arrangements of the peace. The Cabinet assented to the report of the international commission on Jan. 13. The commissioners reported that the finances of the country could not be expected to revert to a state of equilibrium before 1903, and that in the mean time large sums would have to be provided, not only for the indemnity to Turkey of about £3,700,000 sterling and the sum of £92,000 for compensation for private injuries done by Greek troops, but for the deficit in the budget of 1898, the conversion of the floating debt, and possible future deficits before 1903, when the revenue is expected to amount to £2,495,000 and the expenses of the Government to £1,618,000, leaving £877,000 a year for interest and sinking fund on the existing debt and the new debts to be created. The project of law proposed the institution of a Commission of International Control over the finances of the country, which would have a certain definite revenue arising from some internal revenues and the customs of certain places, sufficient to provide £625,000 a year for the service of the old debts at a greatly reduced interest, and £250,000 a year for the new debt. The amount of the new loan was fixed at £6,800,000, of which £3,800,000 would be used to pay off the war indemnity and private claims and £1,200,000 to meet the deficit of 1898. It was proposed to issue a loan of £5,000,000 at once for these purposes, leaving £1,000,000 to be issued later for the conversion of the floating debt, and £800,000 to be raised in such sums as may be needed to provide for subsequent deficits. Germany, Austria, and Italy having declined to take part in the arrangement, France, Great Britain, and Russia agreed jointly and severally to guarantee loans to the maximum amount of £6,800,000. The immediate loan of £5,000,000 it was proposed to raise by issuing 2½-per-cent. bonds at a fixed price to be determined by the state of the market at the time of issue. Greece will pay 2½ per cent. for five years, and after that 3½ per cent., furnishing a sinking fund for the extinction of the debt at the end of fifty-three years, to be applied in annual drawings for the bonds at par. The loan can be converted after twenty years have elapsed.

In accordance with the preliminary treaty, the Greek Chamber had to vote the law approved by the powers without alteration. The international commission was to consist of six members, one for each mediating power, who would decide questions by a majority of votes, and would furnish an accounting to the Greek Government every six months and publish an annual report. The collection of the assigned revenues was intrusted to a Greek company under the absolute control of the commission. Should the affected revenues prove insufficient in

any year to meet the charges of the debt, the Greek Government would have to make up what is lacking. The old debts were to be unified and converted into a new loan, and the forced currency, amounting to 94,000,000 drachmai, was to be extinguished by annual payments, and no new currency to be issued without the consent of the commission, which should apply the excess of the revenue over the amount required for the service of the foreign debt to the service of the internal debt and the withdrawal of the forced currency. The assigned revenues comprise the monopolies, to be conducted on the existing system, which are valued at 12,300,000 drachmai a year, including emery from Naxos; the tobacco duty, valued at 6,600,000 drachmai; stamps, producing 10,000,000 drachmai; and the Piræus customs, estimated at 10,700,000 drachmai, making a total of 39,600,000 drachmai. In case of a deficiency the customs of Patras, Volo, Corfu, and Laurium are assigned as supplementary revenues. Should customs receipts fall below the estimate in consequence of a modification of the tariff, the Government is bound to concede supplementary revenues. By arrangement with the bondholders the old debts were divided into three categories. The first, embracing the two privileged loans, the monopoly loan, and the funding loan, receive 1.72 per cent., being 43 per cent. of the original interest. The second category contains the 5-per-cent. loans of 1881, 1884, and 1890, on which the interest is reduced to 1.60 per cent. The third category, consisting of the 4-per-cent. *rentes*, receives 1.28 per cent., being 32 per cent. of the full interest, the same as in the second category. An arrangement was made regarding the *plus values*, or excess of revenue over the requirements, by which, after deducting 18 per cent. to obtain net revenue, the remainder will be apportioned in the ratio of 30 per cent. to increase the interest on the old debt, 30 per cent. to increase the amortization, and 40 per cent. to go to the Government. The profit to be derived from the fall in exchange will be distributed in the same way. Since April, 1894, the Government has withheld 70 per cent. of the coupons falling due, and of the arrears it was arranged to pay 5 per cent. in four annual installments.

The powers awaited the answer of the Greek Government before signifying their approval of the scheme of international control or making a definite offer to guarantee the new loan. On Feb. 16 the Russian Government, and shortly afterward the English and the French governments, formally undertook to guarantee the indemnity loan.

The Crown Prince, before the end of January, published his report of the campaign in Thessaly, justifying his plan of campaign and his conduct of the retreat, and blaming the Government for the lack of preparation, the lack of commissariat, transport, camp equipments, and medical service, and the entire absence of reserve troops, and accusing Gen. Makri of disobedience of orders in failing to support the right wing at Deleria, and causing the rout to Turnova and Larissa. Recrimination among those who took part in the war became epidemic. The late minister of Marine, M. Levidis, who was himself accused of a total lack of naval knowledge, brought charges against Commodore Sachtouris and Kriegis of disobedience of orders in not attacking the Turkish coast towns. About 50 officers were brought up before the military commission of inquiry on various charges of incapacity, disobedience, and cowardice. Lieut. Kokorris, whose telegram to the minister had led to the removal of Commodore Sachtouris, was, at the latter's instigation, tried for insulting his captain and sentenced to a year's imprisonment. His condemnation occasioned much popular indignation. The reawaken-

ing of memories of the campaign caused a recrudescence of the hostility to the Crown Prince and the dynasty that was shown after the defeat of the army, and this feeling was intensified when the Government accepted foreign financial control. An employee of the mayoralty at Athens named Karditzis, who consorted with antidynastic conspirators at Patras, got a young Macedonian of the name of Kyriakos, who had fought with him in Crete, to join in a plot to murder the King. When King George was driving with Princess Marie on Feb. 26, along the seacoast from Phalerum back to Athens, the two, with Gras rifles, fired from alongside the road at the horses, and then Karditzis fired five times at the King, who stood up to shield his daughter and brandished his stick at the assassins, who hit the horses and the footman and struck the carriage several times, but missed the King. The two conspirators were condemned to death. The members of the secret society were arrested. It had been formed after the retreat from Larissa for the purpose of continuing the war, and assumed later its revolutionary and antidynastic character.

The Chamber met on March 3, and the bill of control was passed through all its stages without much debate, after which the bill for the guaranteed loan of 170,000,000 francs was approved. A measure was passed authorizing the Government to retain a part of the currant crop so as to keep up the export price. When the Opposition, led by M. Delyannis, was about to vote the Ministry out of office, Premier Zaimis on April 4 read a royal decree closing the session.

The delegates of the powers met at Paris on May 2 and announced the issue of the indemnity loan, fixing the price at 100 $\frac{1}{2}$. The ambassadors notified the Porte that the evacuation of Thessaly must take place within a month from May 6. The Turkish army of occupation, numbering 80,000 men, had suffered during the severe winter as much as the Thessalian peasants, and the Turkish soldiers were not less eager than these to get back to their fields in time to sow their crops. When Russia and England urged the nomination of Prince George as Governor of Crete, Edhem Pasha, commanding in Thessaly, was directed to fortify Domoko and Larissa, and the Ottoman Government intimated an intention of making the occupation permanent if the powers placed a Greek prince over the Cretans, and thus gave their sanction to the annexation scheme. Collisions took place between the Turkish troops and the peasantry in Thessaly, who refused to pay taxes to the Ottoman authorities. Seyfulah Pasha in the course of these operations transgressed the neutral zone. The Greek Government distributed relief among the agricultural population.

At the suggestion of the British Government the powers demanded that the evacuation should begin before the first installment of the indemnity should be paid, and that three zones should be evacuated before the payment of the second and third installments. A European commission supervised the transfer of the country from the Turks to the Greeks. The first zone was completely evacuated within the ten days, and on May 18 was occupied by Greek troops. The Greek Government protested, after the Turco-Greek frontier delimitation commission had concluded its work on May 31, against the cession to Turkey of Malakasi and Gribovo. The embassies in Constantinople upheld the decision of the commission on all points. On account of the action of the Greek Government the Turks delayed the evacuation of the fourth zone, and retained possession of the frontier posts of Gritzovali and Nezeros and also the port of Volo until the question was settled. On June 5 the Turkish

troops departed from Larissa, and the place was occupied by Gen. Vassos, who on June 6 entered Volo after Edhem Pasha had embarked with the last detachment of the army of occupation. The final payment of the war indemnity was made on the following day.

The International Commission of Financial Control was already duly installed at Athens. The ministry, which had accepted office in October, 1897, in the face of a hostile majority, in order to carry out the unavoidable measures imposed by the dictates of the powers, refrained from taking any definite steps during the vacation of the Chamber, although the country was clamoring for reforms in every department of state, and on Nov. 7, before the reassembling of the Boule, the Prime Minister tendered the resignation of the Cabinet to the King, who accepted it, but intrusted again to M. Zaimis the task of selecting a ministry.

GUATEMALA, a republic in Central America. The Congress consists of a National Assembly of 69 members, elected for four years by universal manhood suffrage, and a Council of State of 13 members, of whom part are elected by the Assembly and part are nominated by the President. The President is elected for six years by the direct vote of the people, and is not re-eligible for the next succeeding term. José Maria Reyna Barrios was inaugurated President on March 15, 1892, and by a decree of the National Assembly voted on Aug. 30, 1897, his term was prolonged till March 15, 1902. Members of the Cabinet at the beginning of 1898 were: Secretary of War, Gen. Gregorio Solares; Secretary of Fomento, Feliciano Garcia; Secretary of Foreign Affairs, J. Muñoz; Secretary of Public Instruction, M. Cruz.

Commerce and Production.—The value of the imports in 1896 was \$11,429,200 in gold or \$26,287,544 in currency; value of exports, \$23,085,544 in currency. The United States furnished \$3,172,896 of the imports; Great Britain, \$2,164,490; Germany, \$2,012,269. The exports of coffee were valued at \$22,349,623 in currency, consisting of 638,577 quintals, of which 442,681 went to Germany, 119,625 to the United States, and the rest to France, Great Britain, and South America.

Revolutionary Uprising.—On Feb. 8 President Barrios was murdered by a British subject of German origin named Oscar Solinger, who was pursued and killed. Vice-President Morales, who was in Mexico, was declared President, and Gen. Manóquín attempted to seize the Government in behalf of Morales, but he and his associates were killed, and Dr. Manuel Estrada Cabrera, the head of the party that supported the late dictator, was proclaimed Acting President, and, having the army at his back, maintained his power without dispute, but not without aggravating a large part of the population by measures as arbitrary as those of his predecessor, until on July 28 a revolution was started by Gen. José Leon Castillo, one of the leaders of the insurrection of September, 1897. The presidential elections were to be held in the first week of August, and it was the prevailing belief that Cabrera, if elected President for the term of six years, would proclaim a dictatorship and take severe measures against his rivals and enemies. The first rising was immediately suppressed, having been anticipated by the Government. Gen. Castillo took refuge in the Mexican legation. Prospero Morales, who headed the revolt in 1897, then took the lead and raised speedily an insurgent army in the part of the country which had revolted in the preceding year. Several combats took place between the Government troops under Gen. Barrillas and the insurgents, who intrenched themselves at Olos and held the country between that port and Quesaltenango. In one fight

the Government lost 80 men and the insurgents 120. The forces of Morales were far inferior to the troops which the Government was able to move into the revolted district, and at the first engagement at Olos, on Aug. 10, they were defeated and scattered. Manuel Lierandi and Plutarile Bowen, two of the insurgent generals, were killed. Morales, who fell back with the remnant of his army that stayed by him into the Cuchumatanes mountains, was beaten once more, and afterward was hunted among the

rocks and caves until he was captured, on Aug. 17, in a dying condition, having been betrayed by his followers. Acting-President Cabrera announced that the revolution was over and that complete peace prevailed. The Government increased the duties on all imports about 16 per cent. In the presidential election, which had been deferred till September, Cabrera had no competitor. On Sept. 25 the National Assembly proclaimed him President for the term ending in 1905.

H

HAWAII, a republic occupying the Hawaiian Islands in the Pacific Ocean, proclaimed on July 4, 1894, in succession to the Provisional Government that was formed on Jan. 3, 1893, upon the abdication of Queen Liliuokalani (see colored map in "Annual Cyclopædia" for 1892, page 334). The Constitution adopted for the republic vests the legislative power in a Senate of 15 members, elected for six years by indirect suffrage, and a House of Representatives elected by indirect vote for two years. Every male Hawaiian twenty years of age who can speak, read, and write either English or Hawaiian has the right to vote. The President is elected by the two houses in joint session for the term of six years, and is not re-eligible for the next succeeding term. Sanford B. Dole was elected President for the term ending Dec. 31, 1900. The Cabinet in the beginning of 1898 was composed as follows: Minister of Foreign Affairs and of Education, H. E. Cooper; Minister of the Interior, J. A. King; Minister of Finance, S. M. Damon; Attorney-General, W. O. Smith.

Area and Population.—The total area of the islands is 7,629 square miles. The inhabited islands—Hawaii, Maui, Oahu, Kauai, Lanai, Kahulau, Molokai, and Miihau—have an aggregate area of 6,640 square miles, with a population on Sept. 27, 1896, of 109,020, which was composed of 72,517 males and 36,503 females. The city of Honolulu, the capital, has 29,920 inhabitants.

Commerce.—The foreign commerce of Hawaii is larger *per capita* than that of any other country. The total value of the imports in 1897 was \$9,000,000, and of the exports \$16,500,000. This showed an increase of 20 per cent. in imports over the previous year. In exports there was also an increase, owing to increased production of sugar, of which 232,334 tons were exported, all of it to the United States. The share of the United States in the import trade was 77 per cent., while that of Great Britain and British possessions was 12 per cent., Germany coming next, and then China and Japan. The exports, of which sugar forms 96 per cent., go almost entirely to the United States, whose share was 99.02 per cent. of the whole. In the import trade American cotton goods, tools, glassware, furniture, etc., are displacing the English. The sugar industry is prosperous, and cultivation is being extended by sinking wells and distributing water by means of powerful pumps. New and improved methods of production and treatment are employed on most of the plantations, 44 out of the 56 being fully equipped with factories. Coffee-growing is increasing, but is still confined to small plantations. An effort has been made to extend the industry with Government assistance. There were 337,158 pounds of coffee exported in 1897. The cultivation of rice is wholly in the hands of the Chinese. About a quarter of all that is raised is exported to San Francisco. Bananas are also exported, and there is some trade in wool.

Annexation to the United States.—A treaty providing for the annexation of the islands to the United States was signed on June 16, 1897, by plenipotentiaries of the United States and of the republic of Hawaii. A joint resolution to accept the offered cession and incorporate the ceded territory into the Union having been passed by the United States Congress and approved by the President on July 7, 1898, President McKinley directed Rear-Admiral Miller to proceed on the "Philadelphia" to Hawaii to arrange with President Dole for the transfer of the sovereignty of the islands to the United States. This was accomplished on Aug. 12, when President Dole, on the presentation of a certified copy of the joint resolution, formally delivered over to the United States representative the sovereignty and public property of the Hawaiian Islands. In accordance with the terms of the resolution President McKinley directed that the civil, judicial, and military powers of the Hawaiian Government officers should continue to be exercised by them, subject to his power of removal, until Congress should provide a government for the incorporated territory. President Dole and the troops of the Hawaiian Republic took the oath of allegiance to the United States, and thus the administrative and municipal functions of the annexed territory have continued in operation thus far with no interruption.

President McKinley, in pursuance of the terms of the joint resolution, appointed on July 9 the following commissioners to confer and recommend to Congress such legislation concerning the Hawaiian Islands as they should deem necessary or proper: Senator Shelby M. Cullom, of Illinois; Senator John T. Morgan, of Alabama; Representative Robert T. Hitt, of Illinois; and President Sanford B. Dole and Chief-Justice Walter F. Frear, of Hawaii. The existing customs relations of the Hawaiian Islands to the United States and with other countries under the provisions of the joint resolution were to remain unchanged until legislation should otherwise provide. The United States consulate was maintained for appropriate services connected with trade and the revenue, and the Hawaiian consuls in the United States and in foreign countries continued to fulfill their commercial agencies.

Before Congress took action on the treaty the United States Government came to an understanding with Japan regarding the rights of the Japanese in Hawaii, assuring to them equal rights with their fellow-countrymen in the United States in the event of annexation. The claims of Japan against the Hawaiian Government for the illegal exclusion of Japanese immigrants were adjusted by the payment of an indemnity of \$200,000. The Senate Committee on Foreign Relations having in its report accompanying the joint resolution charged Great Britain with having agents conveniently at hand to fasten her power on the islands when a pretext should arise for protecting British lives and prop-

erty, if not actually fomenting a movement for the restoration of the monarchy, Sir Julian Pauncefote, under instructions from his Government, assured the State Department on March 21 that there was no ground whatever for these allegations.

HAYTI, a republic in the West Indies occupying the western third of the island of Hayti. The legislative body is the National Assembly, consisting of a Senate of 39 members and a House of Representatives containing 95 members, the latter elected for three years by the votes of all adult male citizens having a regular means of livelihood, while the Senators are chosen by the lower house from lists submitted by the President and by electoral colleges. The presidential term is seven years. Gen. Tiresias Augustin Simon Sam was elected on April 1, 1896, after the death of President Hippolyte, for the term ending in May, 1902. His Cabinet in the beginning of 1898 was composed as follows: Secretary of Foreign Affairs, Finance, and Commerce, Solon Ménos; Secretary of War and Marine, S. Marius; Secretary of Justice and Worship, A. Dyer; Secretary of Public Instruction, M. Chanzy; Secretary of Public Works, M. Arteaud.

The republic has an area of 11,070 square miles, with a population in 1894 of 1,210,625, of whom 90 per cent. are negroes and the rest mostly mulattoes. The people, who are descended from the slaves of French planters, speak a dialect of French and profess the Catholic religion. There are 400 public schools, on which the Government expends \$1,000,000 a year. The commercial products of Hayti are coffee, cacao, and logwood. Coffee is the staple crop, and though the method of cultivation is of the rudest kind, the Haytian berry obtains a good price in the market. Plows are not used by the natives. Small patches of coffee adjoin their huts, scattered in the midst of a general wilderness, except in some of the fertile valleys, and even there the coffee trees are left in a wild state, or, at the most, the soil is loosened and weeded merely around each plant once or twice a year. Foreign enterprise, by which better methods might be introduced, is regarded with jealousy by the natives, and so long as the article in the Constitution forbidding alien ownership of land is retained no improvement can be looked for. Foreigners have begun to export mahogany, of which there is an almost inexhaustible supply, but native jealousy renders the obtaining of it as well as of logwood somewhat difficult and irregular. The crops of coffee in 1897 and 1898 were partial failures, owing to two successive droughts, and at the same time the market price sank in Europe. This, attended by a crisis in Government finances, caused the premium on gold to rise to 195 in the spring of 1898.

The Government threatened to seize the Clyde steamer "Navahoe" in May for a fine which the owners would not pay, considering it to be a corrupt demand based on a technical error in the ship's manifest. After an investigation the United States minister warned the Haytian Government that it would have to pay damages if it detained any vessel of the Clyde line. President Sam had a conference with President Ulisses Heureaux of Santo Domingo at Jacmel to discuss the boundary dispute, which both were willing to submit to the arbitration of the Pope. Hayti offered to pay an indemnity to secure the desired natural boundary. Navassa island, which was declared American by right of discovery in 1856, was abandoned temporarily during the war with Spain by the company that works the guano deposits. The Haytians have always disputed the American claim, and while the island was left unoccupied a party landed and laid claim to it as Haytian territory.

HOLLAND. (See NETHERLANDS.)

HONDURAS, a republic in Central America. The legislative power is vested in a Congress of Deputies containing 46 members, 3 from each department and 1 from Bay Island, elected for four years by universal manhood suffrage. The President is elected for four years by popular suffrage. Policarpo Bonilla was elected President for the term beginning Jan. 1, 1895. The Council of Ministers at the beginning of 1898 was composed as follows: Minister of Foreign Affairs and Acting Minister of Justice and Public Instruction, Dr. C. Bonilla; Minister of Public Works, Dr. E. C. Fiallos; Minister of War, Gen. J. M. Reina.

Area and Population.—The republic has an area estimated at 45,250 square miles, with about 400,000 inhabitants. Education is free, secular, and compulsory, and there are a university, 8 male and 3 female colleges, and 688 schools, in which 28,767 pupils are instructed.

Finances.—The revenue for the year ending July 30, 1896, was \$1,901,606, and the expenditure \$2,264,586. Of the receipts \$762,859 came from duties on spirits and tobacco, stamps, and other internal taxes, and \$627,512 from customs duties. A New York syndicate negotiated with the Government for the privilege of building a railroad from the Atlantic to the Pacific in connection with a line of coasting steamers, and offered to assume the debt and give the Government \$500,000 a year for administrative expenses in return for a concession of the customs and other revenues. The Government between 1867 and 1870 contracted four loans amounting to £5,398,570 sterling. No interest has been paid since 1872. There is an internal debt of about \$6,000,000.

Commerce and Production.—The cultivation of bananas, coffee, tobacco, sugar, and corn is extending. The people raise large numbers of cattle. The mineral resources are varied and valuable, including gold, platinum, silver, copper, lead, zinc, iron, antimony, nickel, and coal.

Communications.—The railroad from Puerto Cortez to San Pedro Sula and La Pimienta, 57 miles, is being carried through to the Pacific coast, and another has been contracted for to connect Puerto Cortez with Trujillo. The telegraphs have a length of 2,667 miles.

Proposed Central American Union.—Honduras entered with Nicaragua and Salvador into the federative scheme of which the first fruit was the Central American Diet for united action in foreign affairs. A convention met at Managua in September, 1898, for the purpose of formulating a federal constitution for the United States of Central America, under which name the states forming the Greater Republic of Central America were to be joined in a national union, with a common President and Congress. The Constitution was drawn up and signed by the delegates, who appointed a commission consisting of Dr. Salvador Callego, of Salvador, Manuel C. Matus, of Nicaragua, and Miguel Agnelugarte, of Honduras, to meet at Amapala, Honduras, on Nov. 1, and organize the Government of the federation, which they were empowered to administer until the installation of the regular Government on March 15. They were authorized to perfect the scheme of the new federation and to arrange for the election on Dec. 13 of a President, Senators, Representatives, and federal judges to hold office for four years. J. Rosa Facoee, of Salvador, had been selected as the first President of the federal republic. While the federal commission was engaged in its task at Amapala and was generally recognized as having superseded the Presidents of the three republics, who assumed the grade of governors, the opposition to federation grew among the Salvadoreans, who expected that

the chief expense of maintaining the Federal Government would fall upon them. Gen. Thomas Regalado, the most popular of the three candidates for the office of Governor of Salvador, on the eve of the election headed an insurrection with the avowed object of defeating the plans of the federal organizers. The latter called upon President Zelaya, of Nicaragua, to suppress the revolt. He, however, refused to let the Nicaraguan troops be used to up-

hold the union. The commissioners then appealed to President Bonilla, who dispatched an army to Salvador. It crossed the border of that republic and encountered the forces of Regalado, and was defeated and compelled to retire. The success of the rebellion in Salvador put an end to federation. On Nov. 30 the federal commissioners formally declared the union dissolved, the three states resuming respectively absolute sovereignty.

I

IDAHO, a Northwestern State, admitted to the Union July 3, 1890; area, 84,800 square miles; population, according to the census of 1890, 84,385. Capital, Boise City.

Government.—The following were the State officers during the year: Governor, Frank Steunenberg; Lieutenant Governor, George F. Moore; Secretary of State, George J. Lewis; Treasurer, George H. Storer; Auditor, James H. Anderson; Attorney-General, R. E. McFarland; Superintendent of Public Instruction, L. N. B. Anderson; Adjutant General, D. W. Figgins; State Engineer, F. J. Mills—all Democrat-Populist fusion; Chief Justice of the Supreme Court, I. N. Sullivan; Associate Justices, J. W. Huston and Ralph P. Quarles; Clerk, Solomon Hasbrouck.

Finances.—During 1897 there was received by the Treasurer \$320,587.12, from the following sources: Poll tax, \$10,766.84; revenue, \$206,448.56; wagon-road taxes, \$14,076.26; university taxes, \$1,765.59; licenses, \$13,881.59; insurance fees, \$3,865; attorneys' fees, \$800; docket fees, \$1,529.85; interest and rental—school lands, \$12,772.01; principal—school lands, \$3,998.57; interest of university lands, \$941.97; interest of school fund invested, \$6,921.52; principal of school fund invested, \$7,028.04; fees of Secretary of State's office, \$2,491.80; fees of Supreme Court, \$1,036.20; Insane Asylum receipts, \$537.07; national endowment fund, \$23,000; Soldiers' Home endowment fund, \$5,678.05; 5 per cent. of sales of Federal land, \$2,501.46; sixth dividend Columbia National Bank, \$77.18; sale of reports by librarian, \$30; escheated estates, \$251.16; interest on Capitol building fund invested, \$4.99; electors' mileage returned, \$48.40; interest on Bunting warrants, \$155.01; overcharge on bill returned, \$5. Warrants to the amount of \$214,498.89 were redeemed, and there was \$65,429.85 in the treasury at the close of the year. There was due from the counties for 1895 and 1896 taxes the sum of \$42,593.33 on revenue account, \$1,161.13 on university account, and \$2,162.78 on wagon-road account. The expenses of the year were given under general headings; the statement was as follows: Governor, \$3,736.44; Treasurer, \$2,481.55; Auditor, \$3,898.31; Attorney-General, \$3,623.46; Superintendent of Public Instruction, \$6,960.52; Secretary of State, \$5,962.85; Supreme Court, \$13,342.54; district courts, \$34,970.20; Penitentiary, \$34,039.37; Insane Asylum, \$28,992.35; Capitol building, \$4,795.57; land department, \$5,460.66; Adjutant General, \$770.44; Soldiers' Home, \$4,980.07; Legislature, \$72,180.87; State Engineer, \$1,987.80; librarian, \$720; sheep inspector, \$50; Board of Horticulture, \$3,285.90; State University, \$17,621.79; Lewiston Normal School, \$5,179.36; Albion Normal School, \$3,350.26; mine inspector, \$1,713.30; total, \$265,102.61.

The total receipts of the office of Secretary of State for the year were \$2,690.15, from the following sources: Domestic articles of incorporation, \$918.50; foreign articles of incorporation, \$455.80;

appointments of agents for corporations, \$43.50; certified copies of articles and laws, \$130.40; copies of journal entries and searching records, \$228.70; certificates of authentication, \$11; certificates of filing, \$2.75; warrants of arrests, \$15; filing trademarks, \$12; searching records, \$2; blue book, \$1.50; notarial appointments, \$803; commissioners of deeds, \$15; other commissions, \$40. There were 94 domestic articles of incorporation filed, 36 foreign articles, and 14 appointments of agents; 62 notaries public were appointed and 3 commissioners of deeds. The expenses of the office for the year were \$5,962.85.

Valuation.—In 1896 the total assessment of the State, including railroads, telegraph, and telephones, was \$29,951,920.51; in 1897 it was \$30,423,671.95. The valuation was as follows by counties: Ada, \$3,452,533.40; Bannock, \$1,817,588.90; Bear Lake, \$1,069,194.60; Bingham, \$1,485,470.25; Blaine, \$1,121,598.05; Boise, \$388,282; Canyon, \$2,161,596.25; Cassia, \$720,559; Custer, \$460,194; Elmore, \$1,155,507.50; Fremont, \$1,332,119.75; Idaho, \$942,639; Kootenai, \$2,361,478.30; Latah, \$2,795,985.30; Lemhi, \$857,494; Lincoln, \$1,072,366.95; Nez Percés, \$1,707,087.70; Oneida, \$1,546,924.95; Owyhee, \$933,226; Shoshone, \$1,802,803.85; Washington, \$1,209,112.50; total, \$30,423,671.95. The tax apportionments aggregated \$253,000.

Mineral Yield.—The value of the mineral production of the State for 1897 was: Gold, \$2,500,000; silver, \$7,100,000; lead, \$3,500,000; total, \$13,100,000, an increase of \$1,358,155 over the preceding year. The receipts of bullion at the United States assay office in Boise during 1897 amounted to \$1,497,146.28, an increase of \$128,127.73 over 1896. The number of deposits was 4,596. There has been a constant increase in receipts for a number of years, those of 1897 being more than twice as great as in 1893.

Education.—The estimated number of children five to eighteen years of age was 38,810; number of pupils enrolled, 32,560; average daily attendance, 24,256; average duration of school, in days, 104; total number of teachers, male and female, 727; salaries of superintendents and teachers, \$218,728; total expenditure, \$296,357.

The apportionment of school money for 1897 was as follows by counties: Ada, \$1,571.22; Bannock, \$1,701.14; Bear Lake, \$1,697.66; Bingham, \$1,683.16; Blaine, \$816.06; Boise, \$488.36; Canyon, \$1,294.56; Cassia, \$910.60; Custer, \$252.44; Elmore, \$324.22; Fremont, \$2,401.30; Idaho, \$962.80; Kootenai, \$1,252.80; Latah, \$2,876.22; Lemhi, \$477.92; Lincoln, \$322.55; Nez Percés, \$1,563.98; Oneida, \$2,218.50; Owyhee, \$368.30; Shoshone, \$876.96; Washington, \$945.98; total, \$25,026.63.

In the University of Idaho tuition is free to residents, \$15 to nonresidents; living expenses are from \$90 to \$150. The number of bound volumes in the library is 3,500, pamphlets 9,500; value of scientific apparatus and library, \$35,000; value of grounds and buildings, \$125,000; productive

funds, \$6,638; income: from tuition fees, \$340; from productive funds, \$500; from State or municipal appropriations, \$6,000; from United States Government, \$37,000; total income, \$43,840; benefactions, \$100.

Penal.—The report of the warden of the State Penitentiary for 1897 shows that there were 210 inmates; the number discharged during the year was 63; largest number of prisoners at any one time, 150; of those discharged 37 went out on expiration of sentence, 11 by pardon, 3 by commutation, 4 on payment of fines, 4 on order of the United States court, 1 on order of the Supreme Court, 1 escaped, 1 died, and 1 was sent to the insane asylum. The amount expended for the year was \$36,758.16. The net cost of maintenance was \$29,002.53, or an average daily cost *per capita* of 60¢ cents.

Insane Asylum.—By the latest report there were 187 patients in the asylum, of whom 67 were women. The amount expended during the year was \$32,731.39.

Railroads.—The total mileage in the State was 1,085.34, or 0.59 per cent. of all in the United States, an increase in a year of 0.60 per cent. This was 1.29 miles for every 100 square miles of territory, and 115.30 miles for 10,000 inhabitants.

Crops.—By the latest report of the Department of Agriculture the hay crop was valued at \$2,365,178, there being 502,161 tons from an acreage of 193,139. The potato crop was valued at \$188,957, being 629,856 bushels from an acreage of 3,888.

Indians.—The area of Indian reservation in the State is 1,364,500 acres, or 2,132 square miles; Indian population, 3,640; births in 1897, 88; deaths, 132.

Irrigation.—A large irrigation scheme has been inaugurated, the capital stock of the company being \$1,000,000. An immense dam is being built on Bear river, in the southwestern part of the State, from which will run a ditch about 100 miles in length, 40 feet wide, and 10 feet deep; this ditch, with its various laterals, will irrigate an area of 500,000 acres, about 300,000 acres of which is now settled upon, the remaining 200,000 being Government land.

Fruit.—A new corporation has undertaken to plant 1,000 acres in fruit trees, the planting each year to embrace 500 acres of prunes, 250 acres of winter pears, and 250 acres of winter apples, this planting to continue for five years. The prunes are to be dried by evaporation. The finest of the fruit will be shipped in the green state, but the company will rely upon the drier for handling the bulk of the crop. Storage facilities will be provided for the apples and pears, enabling the company to hold its crop of those fruits as long as desirable.

Prosperity.—The year was reported as one of substantial progress. In mining there was a marked revival, the gold resources attracting the attention of many capitalists. The "Idaho Statesman" said: "The blessings of large crops and good prices have caused the northern wheat counties to feel a thrill of new life. Those counties have grown the largest crops harvested in any part of the United States, and the prices obtained have enabled the farmers to pay off mortgages and supply themselves with luxuries denied during the years of depression. The fruit industry has expanded and the wool growers and cattle men have all enjoyed a good year. They have secured high prices and have all made money."

Decision.—Sections 6 and 14 of the sheep-inspection law of 1895 were declared unconstitutional in the case of the State *vs.* James Duckworth. In the lower court the defendant was convicted and fined for bringing sheep into the State

without first having them dipped by a deputy inspector. An appeal was taken, and the judgment of the lower court was reversed.

ILLINOIS, a Western State, admitted to the Union Dec. 3, 1818; area, 56,650 square miles. The population, according to each decennial census, was 55,162 in 1820; 157,445 in 1830; 476,183 in 1840; 851,470 in 1850; 1,711,951 in 1860; 2,539,891 in 1870; 3,077,871 in 1880; and 3,826,351 in 1890. Capital, Springfield.

Government.—The State officers during the year were: Governor, John R. Tanner; Lieutenant Governor, William

A. Northcott; Secretary of State, James A. Rose; Auditor, James S. McCullough; Treasurer, Henry L. Hertz; Superintendent of Public Instruction, Henry L. Inglis; Attorney-General, Edward C. Akin; Adjutant General, J. N. Reece; Superintendent of Insurance, James R. B. Van Cleave; President Board of Agriculture, J. Irving Pearce—all Republicans.



JOHN R. TANNER,
GOVERNOR OF ILLINOIS.

Board of Arbitration, H. R. Calef, J. Keefe, W. S. Forman; Justices of Supreme Court, C. C. Boggs, J. J. Phillips, J. W. Wilken, J. N. Carter, A. M. Craig, J. H. Cartwright, B. D. Magruder—all Republicans.

Finances.—The amount of funds in treasury Oct. 1, 1896, was \$886,346.13; receipts from Oct. 1, 1896, to Sept. 30, 1898: from general revenue funds, \$9,911,738.52; from State school fund, \$2,179,032.30; from local bond funds, \$2,203,913.22; total receipts from all sources, \$15,181,030.17; disbursements for same time, \$13,017,652.52; balance in treasury Oct. 1, 1898, \$2,163,377.65; total bonded debt outstanding Oct. 1, 1898, \$18,500, these bonds having ceased to bear interest, but not having been surrendered; total amount paid into State treasury by Illinois Central Railroad, from March 24, 1855, to April 30, 1898, \$16,980,666.23; securities deposited with State treasurer by life insurance companies, \$303,200; amount received from foreign corporations doing business in the State, \$70,233.15.

Valuation.—The report of State Board of Equalization gave the amount of real and personal property of the State for the purpose of taxation as \$799,695,853, of which \$135,283,662 was personal property; total amount added to the assessment of the State as reported by the Land Committee, \$22,595,806; total equalized value of property assessed by local assessors, \$699,486,640; railroad property assessed, \$76,554,845; capital stock of corporations assessed, \$2,433,425; total equalized value of property in State, \$4,778,474,910; rate of taxation, 56 cents on \$100.

Banks.—For the year ending Dec. 1, 1897, the total receipts from the building and loan associations in the State were \$24,568.55; number of associations, 682; business of associations, \$43,049,061.98. The statement compiled by the auditor of public accounts, Sept. 21, 1898, gave the number of State banks as 139; cash on hand, \$20,181,632.88; total resources, \$159,956,854.13; capital stock, \$17,148,000; surplus fund, \$7,270,699.56; savings deposits subject to notice, \$38,393,454.61; total liabilities, \$159,956,854.13. The cash on hand in the 20

banks of Chicago, Sept. 21, 1898, was \$18,379,653; United States bonds, \$1,444,175.95; total resources, \$124,906,207.39; capital stock, \$11,173,000; surplus fund, \$5,606,500; total liabilities, \$124,906,207.39.

Railroads.—The total railroad mileage in the State, Dec. 30, 1897, was 10,625 of main track and 1,370 of second, third, and fourth tracks, an increase of 213.77 over 1896; new road built, 40.04; operating expenses of all roads in the State, \$50,245,338; other expenditures, \$74,224,390; total earnings and income of railroads in State, \$81,108,123; total income of lines operating through the State, \$121,211,766; capital of roads in State, \$2,725,415,138; taxes paid by railroads of State during the year, \$4,554,050.77; number of miles of steel rails, 10,050.09; of iron rails, 322.77; tons of new rails laid during the year, 67,515.08; number of ties laid, 4,700,915; number of stations in the State, 2,729.

The Illinois Central Railroad paid into the treasury of the State, out of the gross receipts from March 24, 1855, to April 30, 1898, the sum of \$16,980,666.23. The excess of receipts from traffic over operating expenses for the five months ending Nov. 30, 1898, was \$3,597,918, an increase over the corresponding months in 1897 of \$955,224.

Education.—The number of pupils enrolled in the public schools, for the year ending June 30, 1897, was 920,425; average attendance, 705,481; average duration of public schools, 157.9 days; per cent. of daily attendance, 76.5; average number of days for each pupil, 120.8; average number of months of school, 7.5; number of schoolhouses in State, 12,688; number built during the year, 200; number of public-school teachers, 25,541, an increase of 125; number of volumes in district libraries, 329,652; number of volumes bought during the year, 27,568; number of private schools, 864, a decrease of 192; number of pupils in private schools, 138,542, a decrease of 1,427; number of teachers in private schools, 4,615, a decrease of 19.

Insurance.—The report of the insurance superintendent, issued March 15, 1898, showed that the total number of fire and marine insurance companies doing business in the State was 206, a gain of 13 over the last report; assets, \$298,598,016.39, an increase of \$19,676,501.57 over 1896; total liabilities, \$130,261,820.52; cash surplus, \$95,489,172.33, a gain of \$16,767,394.87 over 1896; cash income, \$153,926,098.16; disbursements, \$180,026,665.99; fire risks written, \$1,060,706,623.30; marine and inland risks written, \$170,461,553.48; total risks written, \$1,231,168,176.78, an increase of \$221,730,280.78 over 1896; premiums received, \$13,126,233.24, a gain of \$317,432.92 over 1896; losses paid, \$6,450,465.66; losses incurred, \$7,279,759.07, an increase of \$1,197,497.18 over 1896; average premium rate on each \$100 insured in 1896, \$1.26; in 1897, \$1.07; amount of losses incurred in each \$100 insured, 59 cents in 1897, being 1 cent less than in 1896; risks in congested districts of Chicago, \$149,300,619.81.

The aggregate number of life insurance companies reported was 204; whole number of policies issued in 1897, 29,695, an increase of 7,212 over 1896; amount issued, \$66,036,141.58, being \$11,082,517.60 more than in 1896; premiums, \$10,623,538.18, an increase of \$551,364.56 over 1896; losses paid, \$4,491,276.11, being \$271,252.89 less than in 1896.

The 41 legal-reserve insurance companies admitted assets of \$1,351,661,287.07, an increase of \$105,460,646.30 over 1896; total liabilities, \$1,163,628,263.67; total income, \$304,107,014.16, a gain of \$21,945,906.47; number of policies in force Dec. 31, 1897, 2,199,098; amount thereof, \$5,352,788,310.54.

In the 4 industrial companies the number of policies in force Dec. 31, 1897, was 7,612,134; amount thereof, \$958,449,297; total premiums received, \$1,345,093.22; total losses paid, \$344,493.09.

The 33 fidelity, surety, and casualty companies, for the year ending Dec. 31, 1897, reported their assets as \$96,582,958.73; liabilities, \$80,933,626.31; net surplus, \$15,649,332.42; total income, \$20,692,703.32; total expenditures, \$17,895,526.56; risks in force Dec. 31, 1897, \$3,315,565,290.70; per cent. of losses paid to premiums received, 45.

The 44 life associations showed total assets for 1897 to be \$17,394,108.63; liabilities, \$5,133,644.46; total income, \$20,731,676.40; disbursements, \$19,208,658.60.

In the 17 accident associations the number of certificates in force Dec. 31, 1897, was 67,643; amount, \$257,573,175; written during the year, \$151,789,300.

The 69 fraternal beneficiary societies reported the number of policies in force in 1897, as 1,553,220; total liabilities, \$3,441,208.90; total income, \$29,173,682.53; total disbursements, \$27,609,704.89.

Military.—The Fifth Illinois Regiment was the first volunteer regiment mustered into the service of the United States for the Spanish war. Illinois filled her quota of 7 regiments of infantry and 1 regiment of cavalry.

Charities.—The State Commissioners of Public Charities have rearranged the districts from which patients are committed to the State insane asylums, so that now each county will be entitled to keep in the hospital for the insane of the district to which it belongs one patient for each 183½ votes cast in the election of 1898. In the 4 State hospitals for the insane there were about 5,500 patients, June 30, 1898, maintained at an annual expense to the State of \$800,000.

In the Central Hospital for the Insane the number of patients admitted from July 1, 1896, to June 30, 1898, was 2,699; discharged, 1,035; general expense fund, from July 1, 1896, to June 30, 1897, \$246,557.56; balance July 1, 1897, \$19,037.55; general expense from July 1, 1897, to June 30, 1898, \$186,458.97; balance July 1, 1898, \$10,937.88; cost *per capita*, about \$35.94; received from products of farm and garden for year ending June 30, 1898, \$17,522.83.

In the Eastern Hospital for the Insane the total number of patients admitted from 1896 to 1898 was 3,539; discharged, 1,333; ordinary expense fund for the year ending June 30, 1897, \$382,847.90; deficit existing July 1, 1897, \$3,587.73; ordinary expense fund for the year ending June 30, 1898, \$355,978.53; deficit on July 1, 1898, \$5,775.22; unreported debt inherited from 1897, \$22,839.25; paid on this debt since March 31, 1897, \$1,916.95.

In the Southern Hospital for the Insane the number of patients treated from June 30, 1896, to July 1, 1898, was 1,432; discharged, 308; average net cost per capita, \$145.49; ordinary expense fund for the year ending June 30, 1897, \$172,304.99; balance on hand July 1, 1897, \$23,796.24; ordinary expense fund for the year ending June 30, 1898, \$178,764.03; balance July 1, 1898, \$42,296.45.

In the Asylum for Feeble-minded Children the number admitted in the two years from July 1, 1896, to June 30, 1898, was 798; number discharged, 46; died, 34; expenses from July 1, 1896, to June 30, 1897, \$101,822.84; expenses from July 1, 1897, to June 30, 1898, \$123,621.25; net balance July 1, 1898, \$49.45.

Agriculture.—The August report stated that the number of acres of wheat harvested was 1,911,852, of which 82,939 acres were raised in northern, 949,929 in central, and 881,984 in southern Illinois; yield of the State in bushels, 18,383,943; average price, 62 cents; total value of wheat crop, \$11,473,216; acres of winter wheat seeded for 1898, 1,483,000, against 1,897,000 in 1897.

The average yield of oats per acre in the northern

part of the State was 35 bushels; in the central, 21; in the southern, 19; total area sowed, 3,747,938 acres; total yield, 108,720,511 bushels; ruling price per bushel Aug. 1, 1898, 19 cents; estimated value of crop, \$21,218,742.

The number of acres of rye reported was 115,822; value, \$657,414; seeded for 1898, 90,661 acres.

The number of acres of barley reported was 20,030; average price per bushel, 31 cents; value of the crop, \$171,040. The number of acres of corn planted was 7,051,500; yield, 239,360,000 bushels; price per bushel Dec. 1, 1898, 21 cents; total estimated value of the crop, \$51,510,000.

The experiment station sent out 800 circulars to the farmers of the State, and received 316 replies, 274 of these answers being used in constructing tables on corn, as follows: Total number of acres represented, 16,603; total number of bushels represented, 896,235; average cost per acre, \$8.72; average cost per bushel, 16.1 cents.

The first corn convention ever held in the United States began Feb. 16, 1898, in Chicago. Twenty-one States were represented. The object of the meeting was to draw attention to the corn crop. It was stated that the value of the corn crop in this last decade had been about equal to the combined value of wheat, oats, barley, buckwheat, and potatoes for the same period. The exports of corn foods to Europe have increased in four years from 41,000,000 to 188,000,000 bushels.

Live Stock.—The twelfth annual report of the Live Stock Commission gives the total weight of passed cattle inspected as 770,635 pounds; net proceeds, \$47,905.62; total weight of condemned cattle, 611,260 pounds; net proceeds, \$7,200.79.

The State Board of Commissioners gave a full account of experiments to show that Southern cattle dipped in extra dynamo oil and sulphur are incapable of conveying Southern fever to Northern native cattle. In 1897 700 dairy cattle were tested with tuberculin, and 11 per cent. were found to be diseased. In 1898 229 were tested, and a little more than 16 per cent. were found to be affected. Of the 8,499 cattle quarantined for inspection, 5,761 were released in the yard and 2,738 were slaughtered after inspection. Of the slaughtered, 2,090 were passed on *post mortem*, and the carcasses were sold for food, while 646 were reduced to fertilizer.

Game.—After Sept. 15 the game law is suspended, and pinnated grouse and prairie chicken may be killed. Between Oct. 1 and Dec. 1 quail, ruffed grouse, pheasant, and partridge may be hunted.

The Illinois Fishermen's Association reported 9,703,298 pounds of fish caught in the Illinois river alone, with a net value of \$279,482.07.

Labor Statistics.—The report of the factory inspectors for 1897 gave the total number of places inspected as 11,705; total number of employees therein, 270,271—men, 208,945, women, 52,067, and children, 9,259; total amount of fines and costs, \$3,572.25; total employees in breweries, 2,079; total employees in brick, stone, and terra cotta, 2,308—per cent. children, 3.4; total employees in candies and confections, 2,307—per cent. children, 10.4; total in cigars and cigarettes, 3,457—per cent. children, 4.5; total in department stores, 17,754—per cent. children, 12.1; total in food products, 22,731—per cent. children, 1.1; total garment makers, 31,965—per cent. children, 5.4; total in metal working, 44,923—per cent. children, 1.4; total in paper boxes, 1,401—per cent. children, 1; total in rubber goods, 2,090—per cent. children, 9.6; total workers in tobacco, 603—per cent. children, 8.2; total in wood-working trades, 20,951—per cent. children, 3.4.

The number of counties producing coal is 50; number of mines and openings, 853; total output of all mines in tons of 2,000 pounds, 20,072,758; ag-

gregate home value of total product, \$14,472,529; total number of employees during the year, 33,788; number at work on surface, 3,540; number at work underground, 30,248; average price paid per ton for mining, \$0.5046; number of violent deaths among miners in the year, 69.

Arbitration.—The State Board of Arbitration, March 1, 1898, gave the principal labor disturbance as the great coal strike, which had for its purpose an increase in the wages of miners, and affected the entire bituminous-coal region of the country. The board stood ready to do everything in its power to bring about a settlement, but the scope of the strike made all local arbitration unavailing; so a union was made of the Illinois board with similar boards from Ohio, Indiana, Pennsylvania, and West Virginia, and an unsuccessful attempt was made to settle the difficulty at a joint conference. When it was found that no immediate settlement was likely to be secured the Illinois board returned home. To correct a serious and general misapprehension, the board defined its functions for public information thus: "The Board of Arbitration should be as nearly as possible impartial. Provision is carefully made that the employer and employee shall be equally represented, and that the third member, as nearly as practicable, shall be neutral. The first aim of this board is to determine all controversies wholly upon their merits."

Pharmacy.—The State Board of Pharmacy reported the receipts for 1897 as \$11,192.50; expenditures, \$10,773.46; balance on hand, \$419.04; number of applicants examined, 643; number of certificates of registered pharmacists issued in 1897, 4,570; number of permits to sell domestic remedies in force in 1897, 1,526; number of prosecutions on which fines were collected, 119; receipts from prosecutions, \$2,842.19; expenditures for same, \$3,203.69; expenses over receipts for the year, \$361.50. The receipts for 1896 were \$11,474.50, and the expenditures were the same.

Canals.—The Canal Commissioners reported the gross expenses for 1896 as \$77,987; tolls, \$32,100; number of days canal was open, 229; number of boats running, 67; number of miles run, 167,280; number of tons transported, 446,762.

Peace Jubilee.—On Oct. 21, 1898, 5,000 persons witnessed the formal inauguration of the peace jubilee in the Auditorium at Chicago. At the jubilee ball \$25,000 was realized for the benefit of soldiers and sailors.

Grand Army of the Republic.—At the close of 1898 Illinois had 570 Grand Army of the Republic posts and 23,999 members; receipts during the year, \$37,195; expenditures, \$14,694; assets, \$11,385; invested in United States bonds, \$16,000.

Disaster.—A break in the levee of the Mississippi river at Shawneetown, April 4, 1898, flooded 4 miles of valley land, destroyed 150 houses in Shawneetown at a loss of \$300,000 worth of property, and drowned 24 persons.

Decisions.—The State Supreme Court on Dec. 22, 1898, decided that the school board employees of Chicago come under the civil service law. The justice said: "It seems clear to us that the Board of Education of the city of Chicago is still connected with, dependent upon, and to some extent a part of the municipal government of the city, and, as such, that its offices and places of employment fall within the operation of the civil service act."

A ruling of the same court declared the union-labor-contract clause in the public works to be illegal.

A ruling of the court regarding the validity of a marriage declared that the law of the State in which the marriage was celebrated must be followed.

The same court declared that alien-born women become naturalized when they marry citizens of the State.

The court decided that the city council has no power to levy a tax on vehicles run upon the street of the city for private use or pleasure, and could not compel them to pay an annual license.

The court upheld the cigarette ordinance of the city of Chicago, which fixes a license upon the sale of cigarettes.

A writ of mandamus was ordered to issue against the Board of Education of school district No. 5, in Aurora, prohibiting a change of school books oftener than once in four years.

Public Documents.—The Secretary of State reported finding six large rooms full of miscellaneous reports piled up without system, 50,000 of which have now been classified, listed, and sent out to libraries and persons interested in such collections.

INDIA, an empire in southern Asia, subject to Great Britain and governed under general acts of the British Parliament by a Governor General in consultation with and under instructions from the Secretary of State for India in the British Cabinet. The Governor General is advised by a Council, the members of which are nominated by the Crown. They are re-enforced by additional members of his own appointment, part of them on the recommendation of the Provincial Councils, to form the Legislative Council, which frames regulations to be submitted to him and drafts laws which he forwards to the Secretary of State to be laid before Parliament. The Secretary of State for India in the Cabinet of Lord Salisbury is Lord George Hamilton. The Governor General, or Viceroy, in the beginning of 1898 was the Earl of Elgin. The ordinary members of the Governor General's Council were Sir James Westland, Sir J. Woodburn, M. D. Chalmers, Major-Gen. Sir E. H. H. Collen, and A. C. Trevor, with Gen. Sir W. S. A. Lockhart, commander in chief of the forces, as extraordinary member.

Area and Population.—The territory under direct British administration in 1891 had an area of 965,005 square miles and 221,172,952 inhabitants, having increased since 1881 from 875,186 square miles and a population of 198,860,606. The area of the feudatory or native states was 1,016,322 square miles and their population 70,208,000, making the total area of India 1,981,327 square miles and the total population 291,380,952. There was an increase in the population enumerated in 1881 of 19,294,509 for British territory and 27,721,339 for the whole of India. Of the population in British territory 112,542,739 were males and 108,630,213 females, and in the native states 34,184,557 were males and 31,865,922 females. The foreign population in 1891 numbered 661,637, of whom 478,656 were born in contiguous countries, 60,519 in remote countries of Asia, and 11,816 in Africa, while 100,551 were British and 10,095 were other Europeans, Americans, and Australians. There were 207,731,727 Hindus, 57,321,164 Mohammedans, 9,280,467 nature worshipers, 7,131,361 Buddhists, 2,284,380 Christians, 1,907,833 Sikhs, 1,416,638 Jains, 89,904 Parsees, 17,194 Jews, and 42,763 of other religions in India in 1891. Of the Christians 1,315,263 were Roman Catholics, 295,016 Anglicans, 40,407 Presbyterians, 296,988 Dissenters, 63,967 other Protestants, and 201,684 Syrians, Armenians, and Greek Catholics. There were 11,554,035 males and 543,495 females who were able to read and write, besides 2,997,558 males and 197,662 females under instruction, while 118,819,408 males and 127,726,768 females were found to be totally illiterate and no returns were made as to 13,856,295 males and 12,028,210 females. The expenditure on public instruction in India has increased from Rx 39,400 in 1858 to Rx 3,526,529 in 1896. Of

this latter sum Rx 1,049,895 came from fees, Rx 940,615 from provincial revenues, Rx 778,296 from subscriptions and endowments, Rx 587,950 from local rates and cesses, and Rx 149,773 from municipal funds. In 1896 there were 3,906,006 males and 397,103 females under instruction in 152,841 primary and secondary schools, and in the universities of Calcutta, Madras, the Punjab, Bombay, and Allahabad there were 6,774 matriculated students.

Finances.—The treasury receipts for the year ending March 31, 1897, according to the revised estimates, were Rx 93,803,800, and the expenditures were Rx 97,019,200, including Rx 1,228,500 of expenditure from provincial balances, deducting which the expenditure charged against revenue was Rx 95,790,700. The land revenue yielded Rx 23,699,200; railroads, Rx 20,159,900; salt, Rx 8,438,200; opium, Rx 6,886,700; excise, Rx 5,613,200; stamps, Rx 4,771,500; customs, Rx, 4,516,700; provincial rates, Rx 3,538,000; irrigation, Rx 3,200,700; the post office, telegraphs, and mint, Rx 2,992,000; civil departments, Rx 1,887,000; forests, Rx 1,768,500; assessed taxes, Rx 1,855,500; interest, Rx 1,087,300; miscellaneous receipts, Rx 1,076,900; military departments, Rx 964,800; tribute, Rx 902,500; buildings and roads, Rx 697,700; and registration Rx 447,500. The army took Rx 24,295,600 of the expenditures; railroads, Rx 22,970,100; civil salaries, etc., Rx 15,383,800; cost of collection, Rx 9,028,800; buildings and roads, Rx 6,013,200; miscellaneous civil charges, Rx 5,862,900; interest, Rx 3,456,100; irrigation, Rx 3,251,600; the post office, telegraphs, and mint, Rx 2,728,400; famine relief and insurance, Rx 2,012,900; refunds and compensation, Rx 1,878,800; defense works, Rx 123,500; and railroad construction, Rx 14,000.

For the year ending March 31, 1898, the revenue was estimated at Rx 95,676,800, and the expenditure at Rx 99,330,800, less Rx 1,190,000 of provincial balances, which leaves the net expenditure charged against revenue Rx 98,140,800. The deficits for the two years are chargeable to the famine. The sums expended directly for famine relief were Rx 5,606,900, in addition to which losses in land revenue, salt duty, railroad earnings, etc., were allowed for, amounting to Rx 4,264,000 for 1897 and Rx 1,337,800 for 1898. The capital expenditure on railroads and irrigation works, not charged against revenue, was Rx 4,537,400 for 1897 and Rx 6,588,600 for 1898. The land revenue, which averages about 20 per cent. of the rent in the permanently settled tracts of Bengal, Madras, and the Northwest Provinces, and 50 per cent. of the rent in the rest of India, has increased nearly Rx 900,000 in ten years, and the salt duty Rx 1,764,000, while the opium revenue was Rx 2,533,000 less in 1897 than in 1887. The accounts for 1897 closed Rx 280,000 better than the estimate. The revised estimates for 1897-'98, taking exchange at 15½d., show a deficit of Rx 5,280,000 after meeting Rx 5,390,000 of famine charges and Rx 3,820,000 of war expenditure.

The actual revenue in 1896-'97 was Rx 94,129,741, and the expenditure Rx 96,834,763. For 1897-'98 the revised estimate of revenue was Rx 96,561,500, and of expenditure Rx 101,844,600. The budget estimate of revenue for 1898-'99 was Rx 99,085,400, and of expenditure Rx 98,194,000. The net expenditure in England was £15,468,739 in 1896-'97, £16,099,000 in the estimates for 1897-'98, and £16,286,500 in the budget for 1898-'99. The loss by exchange has fallen from Rx 15,045,000 in 1895, when the rupee was 13.10½d., to Rx 13,990,949 in 1896, with the rupee at 13.688d., Rx 12,116,399 in 1897, with the rupee at 14.458d., Rx 10,546,000 in 1898, with the rupee at 15.375d., and Rx 10,401,500 in 1899, taking the rate to be the same.

The budget estimates for 1898-'99, after providing

for the full amount of the famine insurance grant, Rx 1,500,000, and Rx 1,490,000 of war expenditure, besides Rx 200,000 for better pay for British troops, show a surplus of Rx 890,000. The opium revenue is taken at Rx 490,000 less than in 1898, but Rx 800,000 of suspended land revenue are expected to be realized, owing to a bounteous harvest, which also warrants the expectation of favorable railroad earnings. The expenditure on railroad construction was Rx 10,570,000 for 1898, and for 1899 it was estimated at Rx 13,200,000. The amount spent on famine relief in 1897 and 1898 was Rx 7,470,000. Including loss of revenue, the cost of the famine was Rx 14,040,000, besides Rx 1,850,000 of revenue suspended and Rx 1,370,000 lent to cultivators. The charitable fund expended amounted to Rx 1,840,000. The cost of the plague to the revenue was Rx 420,000; of the earthquake, Rx 530,000.

The war on the northwest frontier cost up to the end of the financial year Rx 5,855,000. The total extraordinary expenditure was Rx 24,000,000, but the deficits were only Rx 6,000,000.

The debt of British India on March 31, 1896, was Rx 232,339,028, of which Rx 103,788,928 was the amount of permanent debt in India, Rx 14,646,868 unfunded debt in India, and Rx 113,903,732 permanent debt in England.

The Secretary of State in England has refrained from drawing on the Indian treasury, leaving at the end of 1896 a temporary debt of £8,000,000 sterling, which the Government was compelled to renew. It also proposed to raise a permanent loan of £6,000,000, of which £3,380,000 were required to pay off debt, and in India to raise a rupee loan of Rx 3,000,000. The Council bills required to be drawn in 1899 were estimated at £16,000,000. The amount of the sterling loan was afterward increased to £10,000,000, which Parliament in June authorized the Secretary of State to raise. The Government in August placed the first installment of the Indian loan, which bears 3½ per cent. interest and was taken at 94.78.

The Currency Question.—The policy of the Indian Government was formerly to seek to establish a stable ratio between silver and gold by international agreement. Its earnest efforts in this direction were repeatedly thwarted by the opposition of the English Government. When the Government of India saw that international bimetalism was unattainable except at a period too remote to relieve it from financial embarrassments threatening its solvency, for it could not continue to discharge its annual gold obligations to England without imposing new taxes, and financial experts were convinced that the limit of taxation was already reached in India, it decided in 1893 to close the mints to the free coinage of silver. To remit £16,000,000 a year to England the Government was obliged to raise 320,000,000 rupees, instead of 160,000,000 rupees, as when the par value of silver was 15½ to 1 and the rupee worth two shillings. When the price of silver began to fall the Government had made the salaries and pensions of British officials payable at the old rate of 10 rupees to the pound sterling, so that a great part of the cost of administration as well as the expenses of the debt and other fixed charges were doubled. The cotton manufacturers of Lancashire and the wheat-growers of England brought pressure upon the British Government to check the fall of the rupee, complaining that Indian manufactures and grain, produced on a silver basis and sold for gold, subjected them to a ruinous competition. When the Government closed the mints in June, 1893, it agreed to accept in payment of obligations due to the treasury British sovereigns at the rate of 16d. to the rupee. This fixed the maximum rate to which the Government expected to bring up the rupee by creating a scarcity

value. At first the exchange continued to fall, going from between 12d. and 13d. to 11d., and afterward it rose with many fluctuations. The Government imposed a duty on imported silver bars, and whenever the rate of exchange tended downward the Secretary of State intermitted his drafts on India for current obligations, offering no India Council bills in the London market except at the desired rate. This only postponed the demands and doubled the difficulty of meeting them later. The authorities hoped that the withdrawal of banking capital from India, which had already begun, would be checked, but the movement was aggravated. With every additional farthing that could be got for the rupee the bankers withdrew larger sums, until they had no capital in India except what they borrowed there. The scarcity of money and the stagnation of business, caused by the check to the great export trade that had grown up under the stimulus of the silver basis, caused Government revenues to fall off. The Government had to borrow in England to meet the annual deficits. The situation was complicated by war, famine, and pestilence, making it necessary to increase the sterling debt by £16,000,000, which was £1,000,000 more than the Indian Finance Minister had estimated to be a sufficient sum to put the Indian currency on a gold basis. To arrive at a gold basis was the ultimate object of closing the mints and producing a scarcity rupee, although the measure was described at the time as only tentative. Arthur J. Balfour, the First Lord of the Treasury and leader of the House of Commons, in 1896 promised, as the contribution of Great Britain to an international bimetallic standard, that the Indian mints should be reopened, thereby providing for the "free coinage of silver within the limits of the British Empire and among a population greater than that of France, Germany, and Belgium together." The Indian Government, however, when the United States and France proposed an international agreement on this basis, declared that it was on the eve of establishing a gold basis, and summarily rejected the American proposition, being urged and encouraged by the monetarists of the city of London.

Meanwhile the business and monetary situation in India and the financial position of the Indian Government went on from bad to worse, until in the beginning of 1898 the officials and the banking and commercial community both pronounced the conditions to be intolerable. English merchants in Calcutta and Bombay could not discount their notes at less than 12 or 15 per cent., and in the native bazaars money could not be borrowed on the security of gold bars for less than 24 per cent. per annum. The rupee circulation was estimated by the Indian officials at Rx 120,000,000, a little more than a fourth of the amount of coined rupees in existence, besides which there were Rx 10,000,000 of currency notes in circulation and Rx 14,000,000 in the treasury. The quantity of silver hoarded in ornaments and other forms besides coin could not be estimated, and the quantity of gold was placed by some as high as £800,000,000 sterling.

In January Sir James Westland, the Indian Finance Minister, carried through the Council a bill providing for the issue of currency notes in India against gold deposited in London. The ostensible object of the bill was to allow quick transfers of money from London in order to relieve the monetary stringency, although telegraphic transfers already answered the same purpose. No gold was deposited in the Bank of England under the bill, and hence no notes were issued. The bill served to prepare the mind of the public for Sir James Westland's plan for establishing a gold basis in India. He first proposed to obtain a reserve of gold coin

by borrowing in England, and asked the British Government to introduce an act into Parliament authorizing the Secretary of State to borrow up to the maximum of £20,000,000 for the purpose of establishing a gold standard in India. After the passage of the statute the Secretary of State should at once borrow £5,000,000 and ship it to India. Holding this reserve of sovereigns, the Indian Government would withdraw from circulation and melt down 10 crores of coined rupees the first year and another 10 crores the second year. Before the currency is contracted to this extent it is anticipated that exchange will be steady at 16d. for the rupee, and that gold sovereigns will flow into India to form the medium of international exchanges in Bombay and Calcutta, while the silver rupee will remain as before the only coin used in domestic transactions. Sir James Westland believed that the sale of Rs 6,000,000 worth of silver for two successive years would have no permanent effect on the silver market, but did not explain how he expected to get that sum for 10 crores of rupees, equal to a third of the world's supply, when suddenly thrown upon the market in competition with the product of the mines, except that he thought that the Indian population would absorb that amount of rupees, which was approximately equal to the annual importation of silver bars, as it was formerly the custom to use coin in making articles of silver, until the stoppage of the coinage gave an artificial value to the rupee. In the letter of the Government of India of March 3, setting forth this plan for securing the early establishment of a gold standard and a stable exchange, it was represented that this was a matter of imperial concern, in which India could fairly claim that the whole burden should not be thrust upon her and that the British Government should contribute, not only in material assistance, but by creating the greater confidence which would result from its publicly assuming a share of the liability. Financial experts in England did not believe that the whole twenty millions sterling would suffice for the establishment of a gold standard in India. Some thought that eighty or a hundred millions would not be enough. But the prospect of giving up even five millions created alarm in Lombard Street, and drew protests from some who had been foremost in urging the Indian Government to reject international bimetalism and adopt the English standard. The opposition of English financiers was so pronounced and general that Lord George Hamilton was unwilling to accede to the proposals of Sir James Westland until the subject was inquired into by a commission of experts. This commission had for its chairman Sir Henry H. Fowler, Lord George Hamilton's predecessor in the India Office, who was responsible for the closing of the mints. The other members were Lord Balfour of Burleigh, Sir Francis Mowatt, Sir David Barbour, Sir Charles Crosthwaite, F. C. Le Marchant, Robert Campbell, Sir John Muir, Everard Hambro, W. H. Holland, and Sir Alfred Dent.

The bankers of London, not less than the tea and coffee planters of India and Ceylon, the manufacturers of Bombay, and representatives of every section of Indian native society, distrusted the composition of this committee—containing six Indian officials and ex-officials, but no member of the classes engaged in commerce and production in India—and still more distrusted the object and scope of the inquiry. A memorial of leading London bankers declared that no inquiry would be satisfactory that did not include an examination of the entire monetary policy of the Indian Government initiated in 1893, and a report as to the possibility or advisability of maintaining it. When chambers of commerce and planters' associations objected to

the scheme, which they believed would subject their industries even more than before to the ruinous competition of China and other silver-using countries, they were told that the adoption of a gold standard for India must be taken as the definite and permanent policy of the Government of India. Opponents of the gold standard asserted that the money stringency in India was the direct consequence of tampering with the currency, and that the late famine was no food famine but a money famine and a large proportion of its victims were the victims of the Indian Government. Since the closing of the mints fluctuations in exchange, which that measure was intended to lessen, had been as violent as before, and often more unexpected. While Indian producers of all classes desired to return to the silver basis and free coinage, English manufacturers and merchants, except cotton manufacturers of Manchester and others who were in favor of international bimetalism, were interested in raising or keeping up the sterling equivalent of the rupee and introducing the gold standard in India, and bankers and bullion merchants on the other hand were fearful that the attempt, for which they foresaw only failure, would cause a disastrous gold crisis, and grave disturbance of trade in England. Lord George Hamilton, a bimetalist of long standing, in vouching for the plan of establishing a gold standard in India without a gold currency, considered that to open the mints of India to the free coinage of silver without some international arrangement would be an act of lunacy, and that circumstances did not exist for entering into an international arrangement, because no such arrangement would be effective without the inclusion of France, and France would only accept a ratio of 15½ to 1, which was impracticable when the market rate was 35 to 1.

When the currency commission began to take evidence the theories of establishing a gold coinage on a gold basis without gold currency were unsettled by testimony from India. Facts that came to light regarding the extent of the illicit coining of full-weight rupees both in the native states and in British India, with machines brought from Vienna capable of turning out a lakh every week, presented a new phase of the question. These counterfeits, which the masters of the mints are unable to detect, are believed by Indians to have been the means of saving their trade from strangulation since the mints were closed.

The Army.—The European army in India in 1898 had an established strength of 3,626 officers and 70,673 noncommissioned officers and privates, made up of 11 cavalry and 56 infantry general officers, 33 general officers unemployed, 914 officers in the staff corps, 5 officers and 10 men on the invalid and veteran establishment, 491 officers and 12,916 men of the Royal Artillery, 261 officers and 5,409 men of the cavalry, 347 officers and 158 men of the Royal Engineers, and 1,508 officers and 52,180 men of the infantry. The native army of British India had an established strength of 1,578 European officers, 3,209 native officers, and 135,853 noncommissioned officers and privates, comprising 33 European and 54 native artillery officers and 2,001 men. 358 European and 619 native cavalry officers and 21,955 privates, 65 European and 488 native officers of sappers and miners and 3,142 privates, and 1,122 European and 2,048 native infantry officers and 108,755 privates. Of the total effective force of 214,924 men of all ranks 55,872 were in Bengal, 67,171 in the Punjab, 47,318 in Bombay, and 44,563 in Madras.

The European volunteers in India numbered 29,466 on March 31, 1897. The imperial service troops, maintained by native princes and trained under

British inspecting officers, numbered 18,114 in 1897. The Government keeps 2 small ironclad turret ships for coast defense, besides a dispatch vessel, 2 torpedo gunboats, several transports, 7 first-class torpedo boats, and a submarine mining flotilla of 8 vessels. Modern breechloading guns have been mounted in coast batteries at Bombay, Karachi, and Aden, at the mouth of the Hugli, and at Rangoon. Upward of Rx 4,500,000 has been expended on special defenses. On the northwest frontier great sums have been spent on the Sind and Pishin Railroad, on strategic roads, on fortifications and military establishments at Quetta, including an advanced position covering the place, on defenses for tunnels and bridges, on fortifications for the Indus crossings at Attock and Sukkur, on an entrenched camp at Rawal Pindi, a defensible post at Multan, and an arsenal at Ferozepore, and on a large number of minor defensive works.

Commerce and Production.—The area cultivated in British India in 1896 was 188,921,010 acres out of 742,240,110 acres surveyed. The acreage of the principal crops was as follows: Rice, 69,160,351; wheat, 18,530,832; other grains, 84,227,474; oil seeds, 12,844,062; cotton, 9,600,616; sugar cane, 2,930,593; jute, 2,248,593; indigo, 1,569,869; tobacco, 1,111,973; tea, 406,478; coffee, 134,279. The cultivation of the poppy is permitted only in certain districts of Bengal and the Northwest Provinces and Oudh, and for local consumption in the Punjab. The opium grown in the native states of Rajputana and Central India, besides paying heavy export duties to the native rulers, is taxed by the Indian Government at the rate of Rx 60 or Rx 62½ a chest. In British India cultivators of the poppy are obliged to sell their entire crop at a fixed price to the Government, which prepares it for market in the factories at Patna and Ghazipur, and disposes of it in monthly auction sales in Calcutta, supplying also the excise department with the small quantity needed for Indian consumption and keeping back in good seasons a reserve sufficient to make up the deficiencies in poor years. Of the cultivated area, as given above, 24,601,684 acres are cropped twice a year, making the total area under crops 213,331,744 acres. The area irrigated by canals, tanks, wells, and other means, counting twice over the land that is irrigated for double crops, amounts to 26,737,083 acres. The Government works irrigate 9,999,819 acres, major works 7,955,529, and minor works 2,043,790 acres. The gross revenue realized is Rx 3,039,860. The forests preserved by the state cover 76,400 square miles, having increased from 17,705 acres in 1877. There were 147 cotton mills, with 37,278 looms and 3,844,307 spindles in operation in 1896, giving employment to 146,244 persons, while 78,889 were employed in 29 jute mills. There were also 6 woolen mills, with 530 looms and 18,658 spindles. The breweries produced 6,313,946 gallons of beer in 1896.

The total value of the imports in 1897 was Rx 71,914,697, and of exports Rx 99,880,660. The imports of live animals were valued at Rx 367,458, and exports at Rx 177,967; imports of articles of food and drink at Rx 8,848,889, and exports at Rx 25,338,844; imports of hardware and cutlery at Rx 1,557,742, and exports at Rx 22,914; imports of metals at Rx 5,462,773, and exports at Rx 118,903; imports of machinery at Rx 3,510,190, and exports at Rx 1,027; imports of railroad materials at Rx 2,661,717, and exports at Rx 4,793; imports of chemicals, drugs, and colors at Rx 1,890,124, and exports at Rx 13,907,521; imports of oils at Rx 3,439,150, and exports at Rx 608,789; imports of raw materials at Rx 3,610,521, and exports at Rx 39,305,221; imports of yarns and textile fabrics at Rx 34,042,980, and exports at Rx 14,078,606; im-

ports of apparel at Rx 1,516,423, and exports at Rx 190,790; imports of all other articles at Rx 6,006,730, and exports at Rx 6,130,285. The imports of cotton manufactures were Rx 29,750,175 in value; of silk, raw and manufactured, Rx 2,242,157; of sugar, raw and refined, Rx 3,151,829; of woolen goods, Rx 1,692,535; of coal, Rx 979,022; of provisions, Rx 1,549,816; of salt, Rx 628,544; of spices, Rx 604,674; of glass, Rx 704,186; of drugs, Rx 772,097; of paper, Rx 384,280; of umbrellas, Rx 306,943; of grain and pulse, Rx 543,135; of dyeing and tanning materials, Rx 731,347. The exports of raw cotton were Rx 12,970,089 and of manufactured cotton, Rx 8,496,474 in value; of raw jute, Rx 10,550,577; of manufactured jute, Rx 5,213,930; of rice, Rx 11,947,586; of wheat, Rx 836,395; of seeds, Rx 8,011,630; of opium, Rx 8,022,923; of hides and skins, Rx 7,001,370; of tea, Rx 8,124,548; of indigo, Rx 4,370,757; of other dyes and tans, Rx 638,936; of coffee, Rx 1,585,039; of wool, Rx 1,241,497; of spices, Rx 497,056; of lac, Rx 1,399,862; of sugar, Rx 511,661; of raw silk and cocoons, Rx 511,661; of manufactured silk, Rx 159,841; of oils, Rx 608,789; of timber, Rx 798,686; of woolen manufactures, Rx 202,032; of provisions, Rx 949,743; of saltpeter, Rx 572,164. The extent of the trade with the principal foreign countries is shown in the following table, which gives the merchandise imports and the exports of Indian produce only:

COUNTRIES.	Imports.	Exports.
Great Britain	Rx 50,417,501	Rx 31,646,304
China	2,149,089	13,681,925
Germany	2,307,821	7,585,579
Straits Settlements	1,842,122	5,007,998
France	920,096	6,355,496
United States	1,466,949	4,813,561
Belgium	2,408,708	3,052,898
Egypt	199,723	4,853,561
Japan	547,856	4,075,886
Austria-Hungary	1,487,788	2,496,685
Italy	464,717	3,027,963
Ceylon	682,643	3,109,953
Mauritius	1,807,631	1,125,926
Russia in Asia	1,868,955	47,932
Australia	452,676	1,174,876
Arabia	494,690	783,931
East Africa	239,452	807,014
Persia	685,983	417,117
Netherlands	240,105	597,885
Spain	12,167	198,353
South America	126	1,436,149

As a consequence of plague and famine, imports in the year ending March 31, 1898, fell off Rx 2,520,000 and exports Rx 6,100,000. The total trade amounted to Rx 163,170,000, of which Rx 69,390,000 represent imports and Rx 93,780,000 exports. In the importation of piece goods there was a decline of Rx 3,460,000; in other manufactured articles, Rx 1,260,000; in raw materials, Rx 780,000; in machinery, Rx 780,000. In foodstuffs the imports increased Rx 1,890,000, of which Rx 1,630,000 was the increase in sugar. Metals, mineral oils, railroad materials, chemicals, and cotton yarn also showed large increases. The import of salt, which comes from Great Britain, increased over 100,000 hundred-weight. Sugar is imported in greater quantities from Germany and Austria and in less from Mauritius. The decline in exports was distributed throughout the list. Cotton decreased nearly Rx 4,100,000, and opium, indigo, tea, rice, and every article of food, except wheat, showed large decreases, also jute, cotton yarn, and piece goods, whereas oil seeds and other raw materials increased in the amount exported. In wheat the increase of Rx 500,000 lakhs was but small, following upon a famine year. The production of coal in India has increased so fast that the imports in 1896 had fallen to a fifth of the domestic production, which was 3,750,000 tons, against 2,750,000 tons in 1894. The imports of

treasure in 1898 amounted to Rx 20,530,000, being Rx 7,500,000 more than in the previous year.

Navigation.—The total number of vessels entered at Indian ports during 1897 was 5,006, of 3,883,989 tons, of which 1,989, of 3,086,971 tons, were British; 921, of 188,101 tons, were British Indian; 550, of 581,725 tons, were foreign; and 1,546, of 77,192 tons, were native. The total number cleared was 4,984, of 3,814,596 tons, of which 1,980, of 3,078,271 tons, were British; 926, of 137,856 tons, were British Indian; 484, of 521,341 tons, were foreign; and 1,544, of 77,128 tons, were native. The number arriving by way of the Suez Canal was 643, of 1,554,653 tons; and clearing, 787, of 1,823,784 tons. The number of vessels entered coastwise was 94,806, of 11,046,072 tons; and cleared 89,349, of 11,092,238 tons. The number of vessels built during the year was 81, of 2,975 tons; the number first registered was 86, of 5,112 tons.

Communications.—The total length of railroads in operation on March 31, 1897, was 20,390 miles, of which 10,238 miles were state lines leased to companies, costing Rx 34,721,121; 5,095 miles were state railroads, built at a cost of Rx 165,177,347; 2,588 miles were guaranteed railroads, which cost Rx 50,333,837; 428 miles were lines belonging to assisted companies, which cost Rx 8,749,590 to build; 893 miles were lines of native states worked by companies, 146 miles worked by the Indian Government, and 898 miles worked by the states, the whole having cost Rx 11,584,262; and 59 miles were foreign lines, which cost Rx 1,700,800, making the total capital expenditure, including Rx 497,351 for surveys and Rx 308,410 for coal mines, Rx 273,072,718. The gross receipts of all railroads during 1896 was Rx 25,366,043. The working expenses were Rx 12,197,688, being 48.09 per cent. of the gross earnings. There were 160,817,267 passengers carried, paying Rx 9,202,289, and 32,471,335 tons of freight, paying Rx 15,415,151. The net earnings in 1896 were Rx 13,168,355, which gave an average return of 5.20 per cent. on the invested capital.

The number of letters, post cards, and money orders that passed through the post office in British India during 1896 was 374,223,042; of newspapers, 28,928,622; of packets, 18,196,529; of parcels, 2,577,083. The receipts were Rx 1,712,961; expenditure, Rx 1,643,316.

The Government telegraph lines had a total length of 46,375 miles, with 142,926 miles of wire. The number of private messages forwarded in 1896 was 4,736,734. The receipts were Rx 1,085,940, and expenses Rx 897,853. In 1898 826 miles were opened, to be followed by 1,540 additional miles in 1899 and 2,522 miles in 1900.

The Plague.—In the winter of 1897-'98 the bubonic plague assumed the proportions of an epidemic once more in Bombay. The searching of female quarters, the compulsory removal, not only of plague patients, but of all persons who have come in contact with them, to the sanitary camp, and the loss or destruction of household goods were so resented by the people that cases were concealed as far as possible, and dying people were frequently turned into the streets. Poona was visited with the disease shortly after it appeared in Bombay, and a malignant type broke out here and there in the rural villages throughout western India. The powers of segregation and enforced medical treatment, which the epidemic diseases act conferred upon the authorities all over India, were no longer violently resisted in Bombay as they had been at first. The sanitation of dwellings, however, could not be enforced, and the municipal authorities were sullenly indifferent to the sanitary condition of the streets. Hence the Government obtained power to tear down and rebuild Bombay as far as might be

necessary, and to spend Rx 5,000,000 for this purpose. From the first outbreak of the plague in September, 1896, to the beginning of February, 1898, there were 71,000 deaths from the disease in the Bombay Presidency, one fourth of them in the city of Bombay. Among Europeans there were only 26 deaths. In Bombay city the pestilence reached its lowest point in August, 1897, and then gradually increased until the deaths reached 1,250 a week in the middle of February, 1898, a rate 50 per cent. greater than in the previous year. Dr. Haffkine's inoculation was not put in practice, and in experimental trials it seemed to have no effect in preventing infection, although it did in reducing mortality. The natives were willing to carry out only one of the preventive regulations of the Government, that of forbidding the ingress of strangers into uninfected villages. In many places the villagers were too ignorant or callous to observe even this precaution, which in larger towns it was impossible to apply. The difficulty was met in a measure by establishing inspection stations on the railroads, at which every passenger was examined by medical officers and no train allowed to proceed without a certificate showing that all on board were free from suspicion. Owing to a lack of medical officers, it was impossible to carry out this plan thoroughly. Quarantine barriers were erected in all directions to prevent the exodus from Bombay. The plague committee in Bombay was opposed by the municipal authorities in its action, and the failure of the municipal administration there and in Calcutta to provide for sanitation led to new legislation abrogating in a great measure the right of native self-government and transferring to the Provincial Government powers and duties that had been intrusted to the municipality.

The system of hospital treatment, which the British authorities considered indispensable, was so repugnant to Hindus and Mohammedans alike that, whatever their degree of education, they would prefer to see their women die of the plague rather than have them taken to a public hospital. British private soldiers were employed in searching Hindu houses up to March 5, when the popular indignation rose to such a dangerous pitch that the practice was discontinued after numerous attacks on search parties. Four days after this riots occurred, occasioned by the measures which the plague committee had ordered and the distress resulting from the penning of the people in the city when trade and industry were prostrate. In the previous year the exodus reduced the population to 450,000, but now there were 800,000 people confined in the city. Outside of Bombay city deaths from plague decreased from 2,000 a week in November, 1897, to 750 in February, 1898. A new rule, ordering the examination of corpses when no death certificate was produced, angered both Mohammedans and Hindus. The municipal corporation refused to supply more money to the plague committee. When the Mohammedans and Hindus, no attention having been given to their petitions, closed all their shops and places of business, and all laborers struck work, the authorities began to devise a means of harmonizing their plague measures with native susceptibilities, especially after an armed uprising of the people had resulted on March 9 in the death of four British soldiers and five other Europeans. The attempt of a plague party to remove a Mohammedan woman to a hospital led to the riot, which, after the police had killed a number of the mob, spread to the whole population, Mohammedans and Hindus, who assailed Europeans and attacked their houses and the public hospitals until the military took possession of the streets. After a change of policy was inaugurated, the brothers Natu, who had been de-

ported without trial from Poona in July, 1897, and since kept in close confinement, were released from jail, but still were interned at Belgaum. Mr. Tilak, the native member of the Provincial Council of Bombay, who was sentenced in 1897 for seditious articles in his paper, the "Kesari," published in Poona, was released in September.

Medical opinion was already convinced that the drastic regulations, which could never be enforced in a European city and were tenfold more obnoxious to a people holding Oriental sentiments regarding family life, had no effect in arresting the progress of the plague. This was not a filth disease as was at first supposed, and still less a disease propagated by drains and sewers or water pipes. The infection was believed to be conveyed either directly from the sufferers or by clothing, bedding, and other things brought into contact with them. Certain animals, particularly rats, were found to be subject to the disease, and were active agents in spreading it. The officials did not relax their oppressive and inquisitorial methods, although these had been proved ineffectual, until the tumults in Bombay, Calcutta, and other places compelled them to relax their regulations. The native press which gave warning of the outraged feelings of the people was treated as seditious. The search parties were given up in Bombay, the use of spies and detectives abandoned, and segregation made practically voluntary, as well as inoculation. The idea of stamping out the plague was abandoned. It had proved more virulent on its recurrence than during the first outbreak, and the authorities adopted the view that it must run its course. Even the safeguards demanded by the Venice conference to prevent its introduction into Europe it was decided to adapt to the religious requirements and domestic habits which had proved themselves in India to be stronger than the fear of death. In April the mortality in Bombay city, which in March had continued to exceed 1,200 weekly, suddenly abated. In March the plague was introduced into Calcutta. A panic fell upon the population and 250,000 of them fled. The Government did not attempt to carry out the rigid system of visitation and segregation that had failed in Bombay, but even milder rules provoked resistance. Inoculators for the plague were murderously assailed and ambulances removing suspected cases were mobbed. On May 21 a serious riot broke out in the suburb of Bhowanipur, caused by a doctor who shot three members of a mob that threatened him when he was selecting a site for a hospital. Cases continued to occur in Calcutta through the summer, but in October, the period of its recrudescence in Bombay and the northwest, the plague disappeared. In the Bombay presidency and Sind the total number of deaths reported for the two years amounted in August to more than 100,000. This includes no estimate for concealed cases nor 2,000 reported deaths in the Punjab, 1,000 in Hyderabad, and smaller numbers in Baroda, Cutch, and Palanpur. The mortality in Calcutta was only 150. In the second epidemic the disease was more virulent, and it attacked Europeans who were exposed, as readily as natives.

In October the pestilence again began to rage in Bombay and other places in western India. The Provincial Government decided that it would not again lock up the people and arrest the activities of that great commercial and industrial hive. Detention camps and passes were discontinued, their place being taken by a strict medical examination of all persons passing the cordon, with disinfection of their clothing when necessary, and a surveillance over persons entering Bombay from infected localities. The third epidemic was more widespread, extending into Madras and Hyderabad and

over wider districts in Baroda, Mysore, and northern India. In the Bombay Presidency the deaths rose to 4,300 a week in the middle of October.

New Sedition Law.—The proposed amendment to the code of criminal procedure, granting powers to first-class magistrates to try cases of sedition with the sanction of the local or the Imperial Government, was opposed by nearly all classes of the native population; by the Hindus more generally than by the Mohammedans. The sweeping character of the measure was toned down so as to allow comments expressing disapprobation of the action of the Government without exciting or attempting to excite hatred, contempt, or disaffection. The punishment for sedition is transportation or imprisonment, the term of which was reduced from ten years to three. Attempts to promote enmity or hatred between races or classes were made punishable with two years' imprisonment. Statements conducive to public mischief were also penalized. Disaffection was defined as including any words calculated to bring the Government into hatred and contempt and any expressions of disloyalty or of feelings of enmity. The bill was passed by the Legislative Council on March 12. It permits proceedings to be taken against native Indians for words spoken in England or anywhere outside of as well as in India. Magistrates are empowered to demand bonds from editors of newspapers and in default to imprison them without trial.

The Frontier War.—The campaign against the Afridis and Orakzais, which cost £4,000,000 and 2,000 men, ended in the evacuation by the British of Maidan and Tirah in December, 1898, when severe cold weather set in. The tribesmen, armed with Martini-Henry rifles and with Lee-Metfords also, captured or stolen from the British, harassed the troops at every step of the retreat. To convince the hill tribes that for them to carry on war against the British was like flies attacking the lion, as Sir William Lockhart said in his farewell proclamation, a winter campaign in the lower valleys and passes was necessary. Gen. Sir Bindon Blood, who had conducted the operations against the Mohmands, and on the Malakand, took possession of the Tanga pass in the beginning of January, 1898, and advanced into the country of the Bunerwals, who showed little hostility to the invaders and paid their fines, allowing the British troops to withdraw at the approach of bad weather. Meanwhile the Zakka Khels abandoned the Khaibar pass, but returned when it was occupied by the British, and attacked the garrison at every opportunity until the troops retired. The Akka Khels and other Afridi tribes sued for terms and began to pay the money and rifles demanded of them after making their submission at Jamrud on Jan. 17. In the middle of January the forces stationed in Makran, in Baluchistan on the border of Persia, far from the former disturbances, were attacked, and reinforcements were dispatched to punish the tribesmen, in co-operation with the troops of the Khan of Kelat. Sir A. Power Palmer succeeded Sir William Lockhart in the command of the Tirah field force when the latter was appointed commander-in-chief of the Indian army. While negotiations were proceeding at Jamrud the delegations of the tribes suddenly departed, and at the same time the Akka Khels began to raid British territory. Several flying columns entered their country, but found the villages deserted. Four British brigades marched from Ali Masjid, Jamrud, Bara, and Mamani to attack the Afridis in their winter pastures in the Bazar valley and on the Kajural plain, thus carrying out Sir William Lockhart's threat. On Jan. 29 Gen. Westmacott's brigade was surprised in a gorge at Shin Kamar and lost 5 officers and 60 men. This

reverse, followed by the retreat of the British columns without their reaching the Kajurai plain, made necessary a spring campaign. The Afridis had lost about 4,000 killed, and wherever the British troops marched their villages, their crops and household goods, and even their fruit trees were totally destroyed, and yet their spirit was not broken. Sir William Lockhart returned to take charge of operations. An army of 50,000 men was massed on the frontier. Four of the eight Afridi tribes, afraid of a fresh invasion of their country, paid their fines and tale of rifles before the spring. The casualties during the previous operations were 44 British and 6 native officers and 136 British and 320 native soldiers killed, 93 British and 36 native officers and 404 British and 845 native soldiers wounded, and 10 British officers and 250 soldiers and 220 natives of all ranks dead of disease. The casualties among the Afridis were greatly increased by the use of the *dum-dum* bullet, which flattens on striking, shattering bones. This was adopted when it was found that the ordinary small-caliber bullet failed to stop the fierce onsets of the tribesmen. The question was raised whether its use was consonant with international law, and the Government affirmed that it was, though it would be improper in dealing with civilized foes.

The Khaibar pass was reoccupied on March 27, and on April 1 most of the Zakka Khels paid their fine. The Akka Khels and other recalcitrant tribes surrendered the required number of rifles or gave hostages a few days later, completing the submission of the hillmen. Dissatisfied Zakka Khels sent a deputation to the Ameer of Afghanistan, which was turned back at Jelalabad. They had not yet complied with the Government demands in September, and were waiting to see whether their money allowances for guarding the Khaibar pass were to be renewed. The Khaibar rifles were finally again placed in charge of the pass, the British garrison being restricted to Landi Kotal. The Mullah Saiyid Akbar, who fomented the original rising, lost all his influence, and the chiefs who led the rebellion were fugitives in Afghan territory. After the war many Afridis enlisted in Indian regiments. The Khaibar, Bazar, Bara, and Tirah districts brought under British control by the war have an area of about 1,000 square miles. The tribes inhabiting these valleys were made to surrender 764 breechloading rifles and pay 50,000 rupees in cash. The whole frontier involved in the struggle has a length of about 1,000 miles, with a width of from 50 to 100 miles. There was no attempt at a general disarmament or an occupation of the hill country. The tribes had acquired a knowledge and dread of the power of the English, who had invaded their mountain fastnesses where no foeman had trod before. But the English, on the other hand, had learned what a costly enterprise they had undertaken in attempting to subjugate these marksmen who fired down on them from cliffs, not with Afghan muzzle-loaders, as formerly, but with modern long-range rifles. The political officers on the frontier had warned the Government of the difficulties of the undertaking, and the most experienced Indian military men considered it to be worse than useless to establish posts and lock up garrisons in this country as a precaution against a Russian invasion, for no army could cross these mountains, and, besides, the 200,000 fighting men of the tribes would defend their independence against any invader. The Government, however, was committed to the forward policy too far to relinquish the country entirely. Hence it was decided that the defense of the Khaibar pass, the commercial route to Cabul, would be assumed by the imperial forces. George Nathaniel Curzon, who was created Lord Curzon of Kedleston,

was appointed Governor General on Aug. 10. Mr. Curzon was known as an adherent of the forward school, and therefore his appointment to the viceroyalty was received with misgivings in India. The Afridi militia were still employed in guarding the pass under the new arrangement, and they received money allowances as before, but they were organized and commanded by British officers. The banished headmen were allowed to return, and the material position of the tribes was the same as before, or was improved in the case of some of those that had received no subsidies under the old arrangement.

INDIANA.—A Western State admitted to the Union Dec. 11, 1816; area, 36,350 square miles. The population, according to each decennial census since admission, was 147,178 in 1820, 343,031 in 1830, 685,866 in 1840, 988,416 in 1850, 1,350,428 in 1860, 1,680,637 in 1870, 1,978,301 in 1880, and 2,192,404 in 1890. Capital, Indianapolis.

Government.—The following were the State officers during the year: Governor, James A. Mount; Lieutenant Governor, W. S. Haggard; Secretary of State, William D. Owen; Treasurer, F. J. Scholz; Auditor, Americus C. Daily; Attorney-General, W. A. Ketcham; Superintendent of Instruction, David M. Geeting; Statistician, John B. Conner; Geologist, W. S. Blatchley; Adjutant General, Gen. Gore; Labor Commissioners, B. F. Schmid, L. P. McCormick; Fish Commissioner, Z. T. Sweeney; Tax Commissioners, I. N. Walker, T. B. Buskirk; Factory Inspector, D. H. McAbee—all Republicans; Chief Justice of the Supreme Court, Timothy E. Howard; Associate Justices, Leonard J. Hackney, James McCabe, L. J. Monks, and James H. Jordan—the two last named are Republicans, the other three Democrats; Clerk, Alexander Hess, Republican; Justices of the Appellate Court, W. D. Robinson, W. J. Henley, James B. Black, D. W. Comstock, and U. Z. Wiley—all Republicans.

Finances.—The report of the Auditor, completed in November, shows that the public debt has been reduced \$1,200,000, making an annual saving of \$38,300 in interest. The Auditor recommends that the present tax levy of less than 30 cents on \$100 be retained, and that legislation be enacted giving greater powers to assessors in the discovery of personal property. During twenty years land values have increased \$65,503,740, while improvements have increased in value \$10,026,218. Lot values have increased in the aggregate \$57,109,228, while the increase in the value of improvements on them has been \$81,184,175. There was a decrease in personal property values from 1891 to 1897 of \$11,663,421. In 1877 corporate property—such as railroads and telegraph companies—was assessed at \$37,760,460, while in 1897 it was assessed at \$161,238,163, or a percentage of 11.56 of the whole taxable property of the State. The total taxable property in 1897 was \$1,295,965,056, an increase of \$421,043,994 in twenty years. The estimate of State expenses for 1898 is \$1,952,850, and for 1900 \$1,852,000.

The report of the Printing Board for the two years ending Oct. 31 shows that the bills for State printing, stationery, and advertising for the first year amounted to \$53,081.77, while for the second year they aggregated \$42,301.32. The legislative printing for the 1897 session cost \$12,778.08, making a total for the year of \$108,161.17. The printing, stationery, and advertising for the State institutions cost \$15,189.73 for the first year and \$12,907.24 for the second year, making a total of \$28,096.97 for institutional printing. The grand total on all accounts was \$136,258.14.

Education.—During the year there was an average daily attendance in the public schools of 434,836, a gain of 32,089 over 1897. Of this gain 21,447 pupils were brought into school under the provisions

of the compulsory law by truant officers. The superintendent shows that, while the direct benefits of the law have been made apparent in the number brought into school by the truant officers, the indirect results of the law are quite as worthy of mention. In many instances children attended school who have never done so before, because they knew this year there was a law which would compel them to attend. Of the total number who were compelled to attend school by the truant officers 1,339 attended private schools.

The number of schoolhouses in the State in 1897 was 10,053, an increase of 753 over 1896.

The apportionment to schools in January was \$960,033.62, and that in July \$1,064,472.45. In November the superintendent forwarded \$738.50 to Washington as part of the amount collected in the public schools of the State for the Lafayette monument fund. Several of the larger cities had not reported.

Changes have been made in the United States school history used in the State in accordance with suggestions made by a committee of the Grand Army.

The standard of admission to the State Normal School has been raised, so that only those who are graduates of colleges or commissioned high schools or who hold a three years' license to teach in the common schools may attend. This does away with entrance examinations. It is also decided to make a certain amount of work in the gymnasium compulsory. There were 113 graduates at the twenty-seventh annual commencement of the school in June. The summer school will hereafter be free, and the work done in the six weeks during which it is held will be credited on the regular course.

The State University had an attendance this year of 1,049, of whom 124 were graduated.

Rose Polytechnic Institute graduated in June 18 students in electrical engineering, 4 in civil engineering, and 1 in chemistry.

Purdue University, which sent out its first graduate in 1887, the only one of that year, graduated in 1898 a class of 57. It has had 4,425 students, more than 80 per cent. of whom are engaged in industrial pursuits, for which the technical training of the university has fitted them. An unusual number of young women entered the freshman class in September. The experiment station connected with the university has given much attention to experiments with beet sugar, with the result of showing that much of the land in the State is adapted to its cultivation.

The senior class at Wabash College numbered 20, that at De Pauw University more than 60, and that at Earlham College 36. At the twenty-eighth commencement of the Indiana Medical College in April, 79 were graduated.

Charities and Corrections.—The condition of many of the county almshouses is reported to be very bad, especially in the southern part of the State. "The houses usually are old buildings, seldom repaired, and some of them are not fit for human habitation. The State Board of Charities has been bending its efforts for years to have these conditions remedied. The State Board of Health has succeeded in doing a great deal of good by forcing changes in county poorhouses which would bring about better sanitary conditions."

The record for 1898 shows that there are 4,300 insane persons in the State, a ratio of 1 to 675. On Sept. 30, of the 4,300 insane, 3,300 were in the hospitals. During the year 322 were refused admittance to the hospitals on account of lack of room, 424 were placed in the county asylums, and 38 were in county jails.

The report of the School for the Feeble-Minded

at Fort Wayne shows the number of inmates, Nov. 1, to have been 570, about half of whom were girls. There are on file at this time 153 suspended applications for admittance which can not be acted upon because of the crowded condition of the school. Fully 15 per cent. of the inmates are now entirely self-sustaining, while about one half of the others are engaged in useful work. During the year the industry of brick making was established in the school, and over 250,000 bricks were produced. This brick was all used in the institution, the principal improvement being the construction of 280 feet of tunnels for steam piping.

A report of the Board of Charities on the State Prison states that the present appropriation of \$90,000, instead of \$100,000, as before, is not adequate to the needs of the institution. Improvements have been made in the building, especially in the sanitary arrangements.

The first biennial report of the management of the Indiana Reformatory at Jeffersonville shows that there are but 536 cells in the institution, while the daily average population for the year ending Oct. 31, 1898, was 909, an increase over the preceding year of 98. The report speaks favorably of the parole law, and shows that 162 men have been released under its provisions. Men in the reformatory are required to earn their own living. The net cost to the State in 1897 was about \$25,000. The cost *per capita* was \$113.30. A school for the convicts is held twice a week. About 200 of them are unable to read and write.

The annual report of the Reform School for Girls and Women gives the number of girls, Oct. 31, as 206, and of women 43. The expenditures for the year were \$40,499.01, and the net maintenance cost to the State was \$21,572.94. There have been 1,125 girls and 614 women received in the institution since it was established in 1873. The girls are crowded into quarters intended for only 60.

At the Reform School for Boys, at Plainfield, a new building was completed in March at a cost to the State of \$4,000, which was the price of materials. The boys made and laid the bricks and did all the other work, even to the steam fitting.

Militia.—A new State militia is to be organized, for whose equipment \$35,000 was available Jan. 1, 1899.

Labor Interests.—The State has had a Board of Labor Commissioners since June 17, 1897. Their first report covers the period from that date to Nov. 1, 1898. During this time the commission "has investigated and reported on 39 strikes and lockouts. Of this number failure to adjust differences occurred in 7 instances, and in 2 of these the contestants on one side were nonresidents of the State, over whom, consequently, the commission could have no jurisdiction. In 4 instances the commission simply investigated and reported the conditions of settlement made between the parties of their own volition. In 28 contests satisfactory agreements were reached through the mediation of the commission, and in 19 of these settlements the workmen secured either advance in wages or other improved conditions." The number of strikers in the whole 39 cases was 13,815, and the number of days lost 539,264. "The commission was also instrumental in having 2 boycotts declared off, and in 5 instances prevented strikes by timely negotiations."

The report says the most formidable obstacles to settlements have usually come, not from the employer or the employed, but from intermeddling third persons—politicians and labor agitators. It says also: "No propositions involving settlements of labor controversies present as great obstacles as those in which trusts are parties to agreements. In every encounter with labor, the workingmen, how-

ever just their cause, emerge from the conflict the greater sufferers. The opportunities of trusts in regard to wage reductions are exceptional, and their desires are always equal to their opportunities. They are not trammelled by State laws, and they defy Federal authority."

On Nov. 14 another strike ended at Hartford city, where more than 600 window-glass workers had gone out; they resumed work without the advance they had demanded, pending arbitration. In regard to this industry the following details are given: "Indiana is the greatest window-glass producing State in the West and one of the greatest in the United States. In it are 40 window-glass concerns; 20,000 skilled workmen and more than 80,000 laborers are affected by the resumption."

From a compilation of statistics by the State statistician it appears that in 21 industries in regard to which he has made comparison the wages in every one were higher in 1898 than in 1897. The largest advance was shown in the business of iron and steel castings, where the average daily wage was 17 cents higher in 1898.

Complaint is made in behalf of factory employees against the practice of many companies in "employing a firm of physicians to attend the medical needs of their employees, and for such services deducting a stated monthly amount from all employees' wages, the company paying the physicians a salary and retaining all left as a commission."

Banks.—Following is a summary from the Auditor's report:

"The 94 State banks of discount and deposit show resources as follows: Jan. 11, 1898, \$16,715,669.10; April 12, \$16,659,572.55; July 21, \$17,257,156.86, and Oct. 31, \$17,803,861.74. The item of "cash on hand," in the aggregate, shows a much better financial condition throughout the State than ever before in years. Last January it aggregated \$1,703,070.52, while on Oct. 31 it had increased to \$1,839,593.42. There was also a much heavier holding of Government bonds by the banks apparent than at the first of the year. On Jan. 11 the amount aggregated \$119,165, while on Oct. 31 the amount rose to \$316,381.

The statement of the liabilities shows that the amount of "individual deposits on demand" has increased over a million and a half during the time covered in the report. On Jan. 11 there was \$9,372,257.44 in the banks subject to demand of depositors. This had risen Oct. 31 to \$10,986,882.88.

One peculiar feature of the report is that the banks and trust companies of the State have gained over \$3,000,000 in business during the year, while the building associations of the State have lost about the same amount of business.

The assets of trust companies were \$3,647,228.79 in 1897 and \$4,413,273.97 in 1898, while the cash belonging to the company's funds rose from \$150,714.58 to \$225,689.26, and the cash in trust funds from \$224,102.61 to \$281,311.55.

The resources of the savings banks increased from \$4,882,638.11 to \$5,651,879.11, the cash on hand or deposit from \$871,873.35 to \$1,178,184.74, and the United States bonds from \$97,000 to \$122,000. Following is the statistical account of the savings banks for 1898: Open accounts first of the year, \$19,707; deposits made during the year, \$5,225,840.83; withdrawn during the year, \$4,473,068.16; interest earned, \$258,602.33; salaries and expenses, \$38,437.74; amount of dividends, \$168,785.91.

Building and Loan Associations.—There were in November 488 of these in operation. During the year 30 retired and 20 liquidated under the law. Thirteen were consolidated, while 9 new ones were incorporated. The report shows a decrease in volume of business done by the associations during the

year of \$2,735,803.60. The reduction of expenses during the year was \$103,027.98. The holdings of real estate increased \$506,025.08, and the fund for contingent losses increased \$100,503.49. The membership decreased 9,748, and the number of shares was reduced 83,947.

Insurance.—For the year ending June 30, 1898, the people of Indiana paid \$8,179,241.93 to insurance companies belonging in other States or foreign countries. This does not include premiums paid to assessment and fraternal associations doing business in the State. In addition to this, several companies are operating under special charters granted prior to the adoption of the present constitution, which make no reports to the department, and a number of fraternal societies take advantage of the exemption of the law and make no reports; so that \$10,000,000 is believed by the Auditor to be a safe estimate.

Railroads.—The increase of mileage in the State reported for 1897 was but 7 miles.

In February the Supreme Court rendered a decision upholding the constitutionality of the co-employees' liability law of 1893, and affirming a judgment by the Cass Circuit Court to William J. Montgomery for \$300 damages against the Pittsburgh, Cincinnati, Chicago and St. Louis Railway Company on account of injuries received by reason of the negligence of an engineer of a freight train on which Montgomery was a brakeman. Besides overruling all the claims of the railroad attorneys as to the law's constitutionality, the opinion also ruled that an employee could not waive his title for damages for injuries by signing an agreement before the injury was incurred. Montgomery had signed such an agreement by the terms of which he became a participant in the benefits of the railroad's relief fund on condition that he released the company from all claims for damages.

By another decision the Supreme Court sustained the three-cent fare law in a case where the Citizen's Street Railway Company of Indianapolis was concerned.

Products.—The crop yield of the year is thus reported by the statistician: Wheat, acres 3,012,332, bushels 51,001,080; corn, acres 3,915,131, bushels 145,501,404; oats, acres 1,162,451, bushels 33,490,424; rye, acres 62,084, bushels 948,056; barley, acres 11,397, bushels 136,234; buckwheat, acres 3,733, bushels 61,206; Irish potatoes, acres 66,205, bushels 4,379,044; sweet potatoes, acres 2,215, bushels 150,062; acres of timothy hay, 1,375,390, tons 1,802,579; acres of clover hay, 1,033,407, tons 1,695,629.

The yields of wheat, corn, potatoes, hay, and buckwheat as given here are considerably larger than those of 1897, when the total value of farm products was more than \$250,000,000. The manufactured products from materials furnished by the farms of the State amounted in value to \$142,621,839.

The report of the State Geologist says the State now ranks second in natural-gas production, fourth in petroleum, and seventh in coal. The report further says:

"The citizens of Indiana are drawing upon their resources with a lavish hand. They not only waste them in their furnaces, their grates, and their stoves by burning them at all hours and in over-abundance, but they also allow 20,000,000 or more cubic feet of gas to escape daily because they are too indolent to plug or cap the wells which have been bored for oil. The natural-gas field of the State originally embraced almost 3,000 square miles. To-day the productive area is less than half that size. The average rock pressure was in the beginning 325 pounds; to-day it is less than 200 pounds."

In March the Supreme Court decided that the law providing penalties for the wasting of natural gas is constitutional and may be enforced.

The Versailles Lynching.—Two grand juries in Ripley County examined witnesses in regard to the lynching of five men at Versailles, Sept. 15, 1897 (see "Annual Cyclopædia" for 1897, page 411), but found no indictments. The Attorney-General then took up the matter, but witnesses would not tell what they knew. Local public sentiment was on the side of the lynchers. One of the accused, Hezekiah Hughes, was among those examined before Justice Craig of Cross Plains. The man was not bound over, and a Methodist minister of the county delivered a sermon in Versailles on "How God delivered Hezekiah Hughes," in which he said: "God showed 'Squire Craig, in answer to prayer, that Hezekiah Hughes was innocent. He showed 'Squire Craig he held the destiny of a human being in his hands. God answered: 'Squire Craig, if you bind him over to court, you bind me over to court. Put him in the Ripley County jail, you put me in the Ripley County jail. What you do unto me or my children, even so you do it unto me.' What did it mean when 'Squire Craig said the evidence was not sufficient to convict him? It meant glad hearts, a happy home, a wife's embraces, children's kisses, and the approbation of almost the population of Ripley County. It meant joy unspeakable to all. I felt like saying, 'All glory to God for the release of Hezekiah Hughes.'"

The Attorney-General made a report to the Governor, in which he said that the only hypothesis left to him by the evidence was that one of the five prisoners named Levi broke jail without being detected, broke into a store and got a certain revolver that figured in the killing, broke back into jail again without being seen, shot himself and then killed two other men whom he hanged, then hanged the two remaining men and himself, and, further: "It is clear that, except as to Levi, nobody was abroad that night. It is clear that everybody, especially in Versailles, Osgood, Napoleon, and Milan, condemns, in the strongest language, the conduct of Levi in thus summarily putting an end to the lives of his companions in crime, imprisonment, and death. Every one in the county, especially the men (other than Levi) suspected of the crime, the lawyers, the officials, and the justices, condemns in unmeasured terms the unlawful taking of life. I know of no crime that they regard as worse than that, unless it be the crimes of which these five men were suspected, and on account of which they were incarcerated. It will doubtless be a great relief to your mind, as it is to mine, to know that the sentiment of Ripley County is a unit, outside of the five men who were hung, and I had no opportunity to discover what their sentiments on that subject were, against the commission of any such crimes as the community outside of Ripley County has heretofore, without any just cause, charged upon the good citizens of the county. In this feeling the Methodist minister in charge at Versailles measurably coincides, but only within limits."

Another lynching was reported as having taken place at Scottsburg, Dec. 24. The victim was in jail awaiting trial for an attempt to kill his wife. The sheriff was overpowered by a mob and forced to give up the keys.

Political.—No Governor was elected this year, but other State offices were filled at the election Nov. 8.

The Democratic State Convention was in session at Indianapolis, June 22. The resolutions declared allegiance to the National Democratic platform of 1896, and favored a vigorous prosecution of the

war and a permanent strengthening of the navy and coast defenses.

The following also was adopted: "We express our undiminished confidence in William Jennings Bryan, our peerless leader in the national campaign of 1896, and we note with much gratification his patriotic course in leading to the defense of his country a regiment of citizen soldiers."

The ticket follows: For Secretary of State, Samuel M. Ralston; Auditor, John W. Minor; Treasurer, Hugh Dougherty; Attorney-General, John G. McNutt; Clerk of the Supreme Court, Henry Warrum; Superintendent of Instruction, W. B. Sinclair; Statistician, James S. Guthrie; Geologist, Edward Barrett; Judges of the Supreme Court, Leonard J. Hackney, James McCabe, and Timothy E. Howard; Judges of the Appellate Court, Edwin Taylor, C. J. Kohlmeier, Edgar A. Brown, W. S. Diven, and Johanna Kopelke. Judge Hackney declined the nomination.

The State Republican Convention was held in Indianapolis, Aug. 3 and 4. The platform declared for the gold standard, approved the national administration in its conduct of the war, approved the revenue law, the issue of bonds, and the annexation of Hawaii, and recommended early construction of the Nicaragua Canal, and restriction of immigration. On State affairs it said:

"We commend the administration of Gov. Mount and the Republican State officials, under which, with a reduction of 25 per centum in the State tax rate within the last eighteen months, \$920,000 of the State debt has been discharged; an army of over 7,000 men has been equipped and placed in the field at an expense of over \$200,000; the laws have been enforced and the name of Indiana honored throughout the land.

"Believing that there is need of reform in county and township government, and that a vast saving of the public money can be made by better methods, we favor early and thorough revision of the laws upon this subject, to the end that the people of Indiana may have the best and most economical management of local affairs.

"We favor, as a supplement to our present election law, the enactment by the next Legislature of such a primary election law as will secure to the people a full and free expression in the selection of their candidates for office."

Following are the nominations: For Secretary of State, Union Banner Hunt; Auditor of State, William H. Hart; Treasurer of State, Leopold Levy; Attorney-General, William L. Taylor; Clerk of the Supreme Court, Robert A. Brown; Superintendent of Public Instruction, F. L. Jones; State Statistician, John B. Conner; State Geologist, Willis S. Blatchley; Judges of the Supreme Court, Second District, Alexander Dowling; Third District, J. V. Hadley; Fifth District, Francis E. Baker.

The Populists, in convention Feb. 22, declared against fusion by a close vote, and condemned government by injunction; favored free silver, woman suffrage, prohibition, and abolition of the issue of money to national banks. The candidates were: For Secretary of State, Dr. H. H. Morrison; Auditor of State, W. H. H. Parks; Treasurer of State, Frank M. Brown; Clerk of the Supreme Court, Robert W. Todd; Superintendent of Public Instruction, Edward Packard.

The Prohibitionists also had a ticket in the field. The election gave all the State offices to Republicans. For Secretary of State, Hunt, Republican, had 286,641, and Ralston, Democrat, 269,125 votes. The Legislature will have a Republican majority which will elect a United States Senator. The 4 Democratic members of the Fifty-fifth Congress were re-elected; the other 9 are Republicans.

IOWA, a western State, admitted to the Union Dec. 28, 1846; area, 56,025 square miles. The population, according to each decennial census since admission, was 192,214 in 1850; 674,193 in 1860; 1,194,020 in 1870; 1,624,615 in 1880; and 1,911,896 in 1890. By the State census of 1895 it was 2,058,069. Capital, Des Moines.

Government.—The following were the State officers during the year: Governor, Leslie M. Shaw; Lieutenant Governor, J. C. Milliman; Secretary of



LESLIE M. SHAW,
GOVERNOR OF IOWA.

State, George L. Dobson; Treasurer, John Herriott; Auditor, C. G. McCarthy; Attorney-General, Milton Remley; Superintendent of Public Instruction, Richard C. Barrett; Railroad Commissioners, G. W. Perkins, E. A. Dawson, and C. L. Davidson, the last-named of whom died and was succeeded in March by David J. Palmer; Labor Commissioner, W. E. O'Brien; Adjutant General, Melvin H. Byers; Dairy Commissioner, L. S. Gates, who died Oct. 11 and was succeeded by Com. Norton; Board of Control for State Institutions, William Larrabee, L. G. Kinne, and John Cownie; architect for the board, Henry Liebbe; secretary, J. G. Jordan, succeeded by L. A. Wilkinson; Chief Justice of the Supreme Court, H. E. Deemer; Associate Justices, Scott M. Ladd, C. T. Granger, Josiah Given, Charles M. Waterman. All elected officers are Republicans.

Finances.—The Treasurer's statement to the Legislature in February gives the following details: The total revenue in 1897 amounted to \$2,167,993.24. This was \$134,150.61 more than was received in 1896. This year (1898) another $\frac{1}{10}$ mill is being collected, the total State levy being 2.8 mills, so that the State's income for 1898, considered solely from the point of view of the State levy imposed on the taxable property of the counties, will be greater by \$180,000 to \$200,000 than in 1896. This estimate excludes the special levy of $\frac{1}{10}$ mill for the State University. There will be increases in the revenues from other sources. The new revenue law will augment the taxes to be obtained from insurance companies. The increase from this source will be from \$30,000 to \$40,000. The State will also receive revenue from the tax on collateral inheritance. The entire increase in the revenues will be absorbed in the redemption of interest-bearing warrants now unpaid because of lack of funds.

At the close of February the State was in debt, above all cash on hand, \$852,748.88.

The valuation for 1898 showed a decrease of \$9,979,186 from that of 1897, the loss being in valuations of land and personalty. That of railroads increased. The total was \$544,247,782.

The tax levy was fixed at 3.2 mills, besides the $\frac{1}{10}$ mill for the University.

The assessment of telegraph and telephone companies was placed at \$930,338, an increase of about 25 per cent., and the levy $3\frac{1}{4}$ per cent.

In September it was announced that the floating debt had been nearly half paid, all the 6-per-cent. warrants having been redeemed. Others were outstanding at an average of about 4 per cent.

Charities and Corrections.—The Legislature at its special session in 1897 appointed a committee to examine the State institutions and report at the regular session this year. The committee reported in January, charging upon the management looseness of methods, unbusinesslike ways, open disregard for many statutes, diversion and intermingling of funds, speculation on State warrants, lack of uniformity in bookkeeping, purchase of supplies and construction of buildings, accumulation of State funds for the sake of interest, and a general lack of economy. Their conclusion was that the institutions were costing the State at least \$150,000 a year more than they would under proper management. Following are the statistics of the institutions as given in the report: The Independence Insane Hospital contained 986 patients and 176 employees besides the officers and medical staff. The pay roll was \$40,000 a year, and \$14 a month was drawn for the support of each inmate. A large proportion of the bills were paid without having been audited by any member of the board of trustees.

The Mt. Pleasant Hospital for the Insane had 884 patients, an increase of 49 for the biennial period. Within four years salaries were increased by \$5,000.

The Clarinda Hospital for the Insane had 658 patients, with capacity for 300 more. Its construction and equipment have cost about \$930,000.

Within two miles of Cherokee \$24,000 has been used in the purchase of 600 acres as a site for a Hospital for the Insane. "Of the entire appropriation of \$460,000, \$75,000 was expended in the construction of the foundation for a building planned to accommodate 600 patients. The balance has been expended in constructing walls, inclosing, and roofing. The appropriations available have been exhausted and certificates have been issued by the building commissioners against the appropriations available for 1898 and 1899."

The inmates in the Soldiers' Home at Marshalltown in July, 1897, were 644; those actually domiciled were 563. "The commissioners have drawn per diem, although it is doubtful if they are entitled to it. None of them have observed the limitation of 5 cents a mile for expenses. The increase in the commissioners' expenses for 1897 was at least \$2,500 over that of 1891. The statute allows \$10 a month for each inmate. Since the home was established this has been drawn upon the number of inmates on the books and not on the number actually in the home. Drugs are purchased exclusively of one house at Marshalltown, the bill last year amounting to \$3,600. A part of the year the whisky bill was \$100 a month. The physician at the home informed us it was the practice to give whisky to many inmates at the physician's office for rations at specified hours during the day. The drug bill has been about ten times that of the Illinois home for last year."

The Glenwood Institution for Feeble-Minded Children has 700 inmates, 350 of whom received no educational or remedial treatment. The salary of the superintendent, \$2,400 per annum, is larger than that paid by other States.

"The compensation for mileage and per diem for the three trustees of the Knoxville Industrial Home for the Blind, for the biennial period ending June 30, 1897, was \$2,107.65, equal to one seventh of the total expenditure for support of the inmates of the institution for the same period, there being 47 inmates, and 7 others given employment. It is the home for the adult blind."

There are 493 children enrolled at the Orphans' Home and Home for Destitute at Davenport, about 300 of whom are soldiers' orphans. "Nearly all

supplies are purchased by competitive bids in large quantities. Coal is bought in Illinois, railway rates preventing it being purchased as cheaply in Iowa. The cost *per capita* is \$9.35 a month. There is no institution more economically conducted in the State."

There were 625 inmates in the Anamosa Penitentiary June 30, 1897. The convicts are constructing buildings and carrying on State improvements.

"There is practically no system of accounting for the materials bought or furnished. There is no method by which the committee was enabled to ascertain whether materials that were bought were actually brought within the prison walls and used in the work of construction. There never have been any specifications or details for the construction of any of the buildings built by the State. The purchase of materials is left to the master mechanic and architect. No one supervises the action of the architect."

The Industrial School for Boys at Eldora, with 500 inmates, and the one for Girls, at Mitchellville, with 160, were under the same board, who have drawn less compensation than any other governing board. There was a lack of thorough bookkeeping, and supplies were furnished as in most of the other institutions.

At the School for the Deaf at Council Bluffs there were 300 pupils. "The school is in a bad financial condition. On June 30, 1896, the outstanding indebtedness was \$10,286.21. June 30, 1897, it was increased \$8,000. The annual wages are about \$10,000 in excess of the annual appropriation by the Legislature of \$21,000."

There were 167 pupils in attendance at the College for the Blind at Vinton. The annual cost per capita is \$219. The annual cost at the school for the deaf is \$210. In view of this report, the boards of trustees were abolished, and the institutions were placed under a board of control, as given under "Legislative Session" in this article. The Governor appointed ex-Gov. William Larrabee, ex-Justice L. G. Kinne, and John Cownie as the board, and the institutions passed under their control July 1. Among the changes in the regulations was one requiring that the dietary furnished by the State for officers and employees must be the same as that for inmates. It is intended also to have the employees, so far as is practicable, live outside the institutions and furnish their own board. Reductions have been made in many of the higher salaries; and a rule is made that there shall be no discrimination in point of salary against women in places where similar work is done by men and women. A ratio of employees to inmates has been fixed for each class of institutions.

The Official Register for 1898 gives the total net cost of the State institutions of Iowa as \$24,812,498.48; and the present value of the property owned by the State as \$11,758,136.

Education.—The report of the committee of the Legislature appointed to examine State institutions says, "The liberality of the State in providing for its public charities is not exhibited in the appropriations made for its educational institutions."

"There were 1,331 students enrolled in the State University, at Iowa City, in 1897; in 1887 there were 571. In 1897 there were 101 professors. In 1887 there were 49. The cost per student in 1897 was \$105. In 1887 it was \$139. The salary list for the year ending June 30, 1898, is \$102,000. The income for 1897 was \$148,000. About \$300,000 has been expended in the construction of buildings. The secretary keeps no books that are checks upon the treasurer. He makes all loans without approval. The treasurer keeps no books showing the sources of revenue." Charles A. Schaeffer, President of the University, died Sept. 23.

The Agricultural College at Ames graduated a class of 85 in November. The report of the legislative committee gives the attendance as 573. "About \$20,000 worth of creamery product is manufactured annually by the creamery department, at an annual loss of about \$1,100, looking at it from a commercial point of view. Relatives of four members of the board are on the pay roll, a practice not to be commended. The statute providing that no member of the board shall receive compensation for more than thirty days in each year is not complied with."

"The number of students in the Cedar Falls Normal School is 1,312. There are 33 teachers receiving salaries aggregating \$34,000. In 1887 there were 435 students, taught by 9 teachers, who received \$10,050. The school is crowded to its full capacity."

Drake University received \$26,390 this year from ex-Gov. Drake. He has given in all about \$150,000 to the institution. The enrollment for the first three days of the eighteenth year reached almost 800 in the college of letters and science, normal, oratory, business, music, and pharmacy departments. Besides these, 113 are enrolled in the law department and about 95 in the medical department, making a total of 508.

The Legislature of 1896 provided for traveling libraries, which may be sent to any incorporated school or college library desiring them; or a club of 25 taxpayers may receive one on application.

The school children of the State contributed about \$1,500 to the Lafayette monument fund.

Military.—The expenses for Iowa troops in the war amounted to about \$125,000. More than half is for the pay of soldiers. They were all uniformed and paid before they left the State.

The report of the State Sanitary Commission shows the following: Voluntary contributions from 10,305 Iowa citizens through the chain letter, \$1,080.50; Grand Army Post, Women's Relief Corps, Daughters of Rebekah, and individual contributions, \$614.34.

The Adjutant General issued a statement in November giving his plan for reorganizing the National Guard after Jan. 1.

Products.—The general crop statement for 1898 gave the aggregate value as \$187,455,376. The yield of corn was 289,214,850 bushels, and that of oats 139,915,346 bushels.

The Dairy Commissioner's report shows the gross number of pounds of butter shipped to have been 92,299,211, which is 7,243,473 pounds less than in 1897. There were 946 creameries, as against 891 in 1897.

The value of the total mineral production of the State in 1897 was \$7,447,800.42, distributed as follows: Coal, \$5,098,108.84; clay, \$1,591,866; stone, \$587,144.58; gypsum, \$195,000; lead and zinc, \$5,616; iron, \$250.

Insurance.—The fire and casualty insurance companies in Iowa in 1897 wrote a total insurance of \$224,832,965, received \$4,306,756.76 in premiums, and paid \$1,594,301.11 in losses. The percentage of losses to premiums was 37, a decrease of 10 per cent. over the previous year.

The Iowa Mutual Tornado Insurance Association reports more than \$55,000,000 of risks now in force. Two new companies were organized at the capital in November, one for insuring against damage by hailstorms, the other against damage by windstorms.

Banks.—The statement of the Auditor on the condition of the 207 State and the 177 savings banks on Sept. 20 shows an increase in deposits during the three months just preceding of over \$2,170,000, and of more than \$16,000,000 in the preceding fifteen months. The amount was \$61,506,858.

Loan Associations.—The number of these in 1897-'98, as reported to the United States League at its annual session in July, was 87; the membership, 25,000; and the assets, \$6,594,778.

Railroads.—The gross earnings of railroads in Iowa in 1898 were \$45,944,244.90, an increase of 19.4 per cent. over those of 1897; the expenses of operation, \$29,812,088.55, an increase of 18.8 per cent.; the net earnings showed an increase of 21.6 per cent.; the employees, including general officers, increased from 26,690 to 30,009; and the salaries paid from \$15,157,519.49 to \$17,280,215.01.

The assessment of railroads in the State in 1897 was \$44,494,431; and this was increased in 1898 by about \$45,000.

Legislative Session.—The twenty-seventh General Assembly was in session from Jan. 10 to April 1, the Republicans numbering about two thirds on joint ballot. J. H. Funk was chosen Speaker of the House. Gov. Drake's message was received Jan. 11, and Gov. Shaw was inaugurated Jan. 13.

Ninety-seven bills were passed, not including all the appropriation bills, the legalizing acts, the support-fund bills, and the five joint resolutions; 55 were Senate bills and 42 House bills.

The most important act was one providing for a board of control for State institutions. It is to consist of three members appointed by the Governor and confirmed by a two-thirds vote of the Senate. They are to receive salaries of \$3,000 each, to give bonds of \$25,000 each, and to serve six years. They are to have control of all State institutions except the three educational institutions, and the boards of trustees of all institutions coming under their care are abolished. The new board supervises the entire management, fixes salaries of officers and employees, approves all contracts for supplies and for buildings, and appoints a State architect to prepare plans for its approval. A complete set of books must be kept at each institution and a record of each inmate. The superintendents and wardens must meet with the board quarterly at Des Moines. Terms of present superintendents are not disturbed. Employees must not pay political assessments or contribute to election expenses in any way, on pain of dismissal.

A law to regulate primary elections provides that when any political party holds a primary election for nomination of candidates for office, it shall be unlawful for any person not a qualified elector or not at the time a member in good faith of such political party to vote in such primary. Nothing in the law is to apply to the conventions held under the caucus system.

Of laws affecting railroads, one called the Temple amendment provides that railroads and other corporations shall not be exempt from liability for accidents to employees by reason of any contract of insurance, relief, benefit or indemnity entered into prior to the injury or death between the person so injured and such corporation, nor shall the acceptance of any such insurance or benefit by the person injured, or his widow, heirs, or legal representatives after the injury be a bar to any cause for action for damages against such corporation.

The Legislature appropriated \$1,165,088.95, including \$500,000 which was to be placed at the disposal of the Governor as a war fund in case war was declared with Spain, and \$50,000 for an emergency fund for the State institutions. The amount provided for the expenses of the Statehouse and all the departments was \$167,000.

The extraordinary appropriations for State institutions were as follow: Industrial School, Mitchellville, \$2,900; Industrial School, Eldora, \$5,500; Anamosa Penitentiary, \$42,825; Fort Madison Penitentiary, \$14,120; Institution for Feeble Minded,

Glenwood, \$9,000; Hospital for Insane, Clarinda, \$24,865; Hospital for Insane, Independence, \$14,875; Hospital for Insane, Mt. Pleasant, \$10,500; Industrial Home for Blind, Knoxville, \$19,000; Orphans' Home, Davenport, \$5,800; State University, library and repairs, \$11,000; School for Deaf, Council Bluffs, \$9,650; College for Blind, Vinton, \$7,000; State Normal School, Cedar Falls, \$14,000; Hospital for Insane, Cherokee, \$100,000; Agricultural College, Ames, \$5,000; Soldiers' Home, Marshalltown, \$16,000; Benedict Home, Des Moines, \$5,000; total, \$317,035.

Increases in the permanent-support funds were made as follows: State Normal School, Cedar Falls, from \$11,000 to \$23,500; State Normal School, Cedar Falls, contingent, from \$3,000 to \$9,000; Glenwood Institution for the Feeble Minded, from \$10 to \$12; State veterinarian, from \$6,000 to \$10,000 biennially; traveling library, \$2,000 annually; State University, \$10,000 annually.

The following reductions in the support funds were made: Hospitals for Insane, Independence and Mt. Pleasant, from \$14 to \$12 a month; Hospital for Insane, Clarinda, from \$14 to \$13 a month; Industrial School, Mitchellville, from \$11 to \$10 a month; Industrial School, Eldora, from \$10 to \$9 a month; College for Blind, Vinton, from \$40 to \$35 a quarter; School for Deaf, Council Bluffs, from \$21,000 to \$18,000 annually and allowing for only three quarters because of vacation.

The amount appropriated is smaller than in other recent years. The executive board was authorized to make a levy for State purposes sufficient to raise \$1,600,000 in 1898 and \$1,500,000 in 1899.

Other enactments were: Apportioning the State into representative districts, fixing the ratio at \$22,000.

Making transfer of real estate by partition a matter of record in the offices of the county recorder and county auditor, so that it may be listed for taxation to the person to whom it belongs.

Requiring every landowner in the country to cut the weeds on the highway bordering his land.

Giving the State entomologist authority to examine with paid assistants any nursery in the State or any fruit trees or other nursery stock shipped into the State, to ascertain whether or not they are infested with the San José scale. All nursery stock shipped into the State must be accompanied by a certificate from the entomologist of the State from which it comes, showing that the stock has been inspected and found free from the scale.

Authorizing the Agricultural College to purchase 40 acres adjoining the present college farm for experimental purposes.

Making it unlawful to kill grouse or pheasant, wild turkey or quail between Jan. 1 and Nov. 1.

Giving the State fish and game warden authority to search for and seize fish and game taken in violation of law.

Prohibiting adulteration of candy.

Exempting beet-sugar corporations from paying the incorporation fee to the Secretary of State.

Providing for the destruction of thistles.

Requiring all applicants for teachers' certificates to pass an examination in didactics.

Extending the jurisdiction of Iowa courts in counties along the Missouri river to the middle of the channel of that river, wherever it may be.

Allowing cities under special charter to levy a one-mill tax for library purposes, and requiring library trustees to report to the city council.

Reducing interest on State warrants from 6 to 5 per cent.

Providing that a fraternal beneficiary society must have 250 active members before receiving a certificate to do business in the State.

Imposing upon life insurance associations the same penalties as are imposed upon fire insurance companies for giving rebates and making discriminations.

Requiring weeds to be cut in parking along streets in cities and towns, the cost to be charged to the abutting property.

To keep girls in the reform school until twenty-one years of age, if necessary to complete reformation.

Requiring husband and wife to testify in cases where they are accused of fraudulent transfer of property, one to the other, to prevent collection of debts.

Prohibiting manufacture and sale of adulterated linseed oil, unless it is branded adulterated.

Providing that a pharmacist's permit to sell liquor can not be revoked on account of a violation of the law occurring more than two years before the action is begun.

Providing that the cost of transcribing testimony in cases of appeal from the District to the Supreme Court shall be taxed as costs in the case, to be paid by the losing party.

Raising the taxes of express companies from 1 to 2 per cent. upon the gross receipts for business done within the State.

Making valid and legal all the contracts by building and loan associations prior to the passage in 1896 of the new law.

Prohibiting killing, maiming, or trapping any deer, elk, or goat, under penalty of \$25 fine or one month in jail.

A joint resolution which had passed two Legislatures provided for submission to the people at the general election in 1898 of a new plan of representation in the lower House of the Legislature. It was proposed that the ratio of representation should be fixed by dividing the total population of the State according to the last State or Federal census by the number of counties, giving each county one representative, and each county having a population of one and three-fifths times the ratio or more, two representatives; but not more than two. This was defeated at the November election by a vote of 33,872 for, to 76,391 against it. It would have increased the number of representatives from 100 to 115.

Another constitutional amendment was proposed by a resolution which passed this Assembly and must pass the next before it is submitted to the people. It provides for biennial elections.

A joint resolution proposing an amendment to the constitution giving the elective franchise to women was defeated by a vote of 49 to 48.

Judicial Decisions.—In a case involving the constitutionality of the Iowa law rendering void any contract with a railroad limiting the liability in cases of loss, the United States Supreme Court affirmed the opinion of the State court that the law did not interfere with interstate commerce, and the regulation attempted was within the province of the States.

The law taxing collateral inheritances was pronounced unconstitutional in a district court at Council Bluffs in February, on the ground that it was in contravention of the fourteenth amendment to the Constitution of the United States in that it took property without due process of law, and also because the law contained no provision for annuities. The law provides for a 5 per-cent. tax on all bequests other than to direct heirs. An appeal will be taken by the State.

The United States Supreme Court gave a decision in May involving the construction of the law forbidding the sale of liquors in the State and making it a crime to transport them, and dealing with construction of the State law under the Wilson act

of Congress, which it was claimed would render the State law valid. The decision reversed the verdict of the State Supreme Court. T. H. Rhodes was a railroad agent at Brighton, Iowa, and was convicted of participating in the transportation of a package of goods shipped from Dallas, Ill., to Brighton, his part of the transaction being the removal of the package a distance of six feet from the platform to the warehouse. The United States court held that Rhodes's act was a part of the act of shipment from one State to another, and therefore not subject to question. The State could control the sale of liquor in the State, but it could not, the justice said, extend its jurisdiction beyond the State's borders.

Justices Gray, Harlan, and Brown dissented, on the ground that the State law was valid as a police regulation.

In a decision at Sioux City in February it was held that when a voter marks a cross in a square opposite to a blank space on an Australian ballot it does not invalidate his vote, and it can not be construed as a mark of identification.

Political.—The State convention of the Middle-of-the-Road Populists was held at Des Moines, June 2, with 84 delegates. The resolutions declared that fusion with other party organizations had been productive of only confusion, distraction, and destruction to the People's party, and said:

"Therefore, be it resolved, that a high sense of honor demands that all true and earnest members of the People's party in the State of Iowa do henceforth refuse to fuse or swap votes for offices, great or small, either in matters of national, State, or local importance, with any other party.

"We deny that the platform of any other leading political party is in harmony with the principles enunciated in the platform of the People's party adopted at Omaha and St. Louis on the subjects of money, land, transportation, Government ownership of public utilities, monopolies, bonded indebtedness and coin, or gold redemption."

They declared in favor of the initiative and referendum, and approved the war, but opposed the acquisition of conquered territory; opposed bond issues and favored free silver for foreign commerce; urged that money should be issued solely by the Government; favored Government ownership of public utilities.

The nominations were: For Secretary of State, R. M. Daniels; Auditor of State, C. A. Wicks; Treasurer of State, A. M. Hutchinson; Supreme Judge, L. H. Weller; Attorney-General, J. A. Lowenberg; Railroad Commissioner, Joseph Ash; Clerk Supreme Court, Alli Reed.

The Prohibitionists in State convention at Des Moines, June 28 and 29, besides reiterating prohibition principles, said:

"We declare that the so-called regulation by license, mulct or taxation whereby a revenue is derived from this traffic, is contrary to good government, is complicity with the liquor crime, and corrupting the public conscience. Therefore, we demand the repeal of the mulct and the manufacturing laws, and that a prohibitory constitutional amendment should be submitted to a direct vote of the people.

"Experience teaches us that any political party not openly opposing this traffic will court the favor of the liquor interests, and will shape legislation to secure or retain its support. We therefore declare for prohibition with a Prohibition party back of it."

The resolutions also declared in favor of a free ballot and Sabbath observance. The candidates named were: For Secretary of State, Malcolm Smith; Auditor of State, Edgar Brintnall; Treasurer of State, J. C. Reed; Judge of the Supreme

Court, H. F. Johns; Attorney-General, Samuel Holmes; Clerk Supreme Court, Bertha J. Bowers; Reporter Supreme Court, Benjamin Radcliffe; Railroad Commissioner (full term), R. M. Diehl; Railroad Commissioner (to fill vacancy), A. M. Johnson.

The National Democrats put out no ticket; but the chairman and national committeeman for Iowa advised the party to vote and work for the Republican congressional candidates, in the interest of sound money.

The Republican convention met at Dubuque, Sept. 1. The platform declared for the gold standard, reciprocity, and protection, and favored "the upbuilding of the American merchant marine, the speedy construction of the Nicaraguan Canal, the securing of naval and coaling stations, and the protection of American rights in every quarter of the world with an adequate navy"; and said, further:

"That the Republican party under whose policies and administration prosperity has been restored, and a foreign war successfully conducted, has earned the right to be further intrusted with the task of solving the territorial, colonial, and commercial problems that have resulted from the war.

"That it is due to the same cause of humanity and civilization for which the war with Spain was fought, that no people who have in consequence thereof been freed from oppression shall, with the consent or through the indifference of the United States, be returned to such oppression or permitted to lapse into barbarism."

The soldiers and sailors were commended, and the administration of Gov. Shaw was approved; but State matters were not touched upon further. The ticket follows: For Secretary of State, George L. Dobson; Treasurer of State, John Herriott; Auditor of State, Frank F. Merriam; Attorney-General, Milton Remley; Railroad Commissioner (full term), Welcome Mowry; Railroad Commissioner (short term), David J. Palmer; Clerk of the Supreme Court, C. T. Jones; Judge of the Supreme Court, Horace E. Deemer; Reporter of the Supreme Court, Ben I. Salinger.

Conventions were held Sept. 7 by the Democrats, silver Republicans, and one wing of the People's party, at Marshalltown. They united upon a ticket with a platform emphasizing their devotion to the policy of free coinage. It said: "We impeach the Republican party of criminal insincerity in declaring for bimetalism in its national platforms of 1888 and 1892 and for international bimetalism in 1896, and now in its latest State platform unequivocally committing itself to the gold standard. And we denounce as being dangerous to the public welfare its proposal for legislation involving the conversion of the 500,000,000 silver dollars and the \$348,000,000 of greenbacks, first into exclusive gold obligations and next into an interest-bearing bonded debt, and filling the vacuum created by the obliteration of the nearly \$1,000,000,000 of legal-tender money with non-legal-tender bank notes."

Following were the nominations: For Secretary of State, Claude Porter; Auditor, E. H. Gillette. Treasurer, Nils Anderson; Attorney-General, J. M. Parsons; Judge of the Supreme Court, W. A. Spurrer; Clerk of the Supreme Court, E. R. Perkins; Reporter of the Supreme Court, W. A. Ferren; Railroad Commissioners, (full term) Anthony Hanson, (short term) H. E. Wills.

The candidates of the Socialist-Labor party were: For Secretary of State, A. C. Swanholm; Auditor, Claude Bronner; Treasurer, Augustus Westphal; Attorney-General, M. J. Kremer; Judge of the Supreme Court, John Wellendorf; Clerk, Augustus Lelonech; Reporter, Charles Schernickau; Railroad Commissioners, (full term) Peter Lohse, (short term), C. Hostrup.

The Republican candidates were elected by pluralities averaging about 65,000. Following was the vote for Secretary of State: G. L. Dobson, Republican, 236,524; Claude Porter, Democratic, 173,000; Malcolm Smith, Prohibition, 7,559; R. M. Daniels, Peoples', 3,372; A. C. Swanholm, Labor, 1,081; Dobson's plurality, 63,524. All the eleven districts elected Republican representatives in Congress.

The constitutional amendment was defeated, as stated under "Legislative Session" in this article.

ITALY, a kingdom in southern Europe. The throne is hereditary in the line of Savoy by male descent in the order of primogeniture. The reigning King is Umberto I, born March 14, 1844, the eldest son of Vittorio Emanuele II of Sardinia, the first King of United Italy. The heir apparent is Vittorio Emanuele, Prince of Naples, born Nov. 11, 1869. The legislative power is vested in a Parliament consisting of a Senate of 372 members, nominated for services in public employment or eminence in science, literature, or other pursuit tending to the benefit of the nation, and a Chamber of Deputies containing 508 members, 1 to 57,000 of population, elected, according to the electoral law of March 28, 1895, by the ballots of all adult male citizens who can read and write or who pay a minimum amount of direct taxes. The number of registered electors in 1896 was 2,120,909, of whom 1,241,486 voted in the election of March, 1897.

The Council of Ministers constituted on Dec. 14, 1897, was composed as follows: President of the Council and Minister of the Interior, Marchese Antonio Starabba di Rudini; Minister of Foreign Affairs, Marchese Emilio Visconti-Venosta; Minister of the Treasury, Prof. Luigi Luzzatti; Minister of Justice and Ecclesiastical Affairs, Signor Zanardelli; Minister of Finance, Ascanio Branca; Minister of War, Gen. di San Marzano; Minister of Marine, Benedetto Brin; Minister of Commerce, Industry, and Agriculture, Signor Cocco-Ortu; Minister of Public Instruction, Signor Gallo; Minister of Public Works, Signor Pavoncelli; Minister of Posts and Telegraphs, Emilio Sineo.

Area and Population.—The area of the kingdom is 110,623 square miles. The population was computed to be 31,479,217 on Dec. 31, 1897. The number of marriages in 1897 was 229,041; of births, 1,148,980; of deaths, 742,734; excess of births, 406,246. The number of permanent emigrants in 1897 was 165,429, and of temporary emigrants 134,426; total, 299,855. The Italian immigration into the United States was reported to be 59,431; into the Argentine Republic, 44,678; into Uruguay, 3,651. The population of Naples on Dec. 31, 1897, was estimated to be 536,073; of Rome, 487,066; of Milan, 470,558; of Turin, 351,855; of Palermo, 287,972; of Genoa, 228,862; of Florence, 209,540; of Venice, 155,899; of Bologna, 153,206; of Messina, 152,648.

Finances.—The receipts of the treasury for the year ending June 30, 1897, were 1,745,497,676 lire, and the expenditures were 1,745,370,744 lire, leaving a surplus of 126,932 lire. For the year ending June 30, 1898, the ordinary receipts were estimated at 1,661,456,980 lire, and the extraordinary receipts at 35,384,375 lire, making a total of 1,696,791,355 lire. The ordinary expenditures were estimated at 1,573,235,729 lire, and the extraordinary at 113,557,680 lire; total, 1,686,793,409 lire. The revenue from railroads and other state property was set down as 93,869,647 lire; direct taxation, 431,499,000 lire, comprising 286,249,000 lire from income tax, 106,750,000 lire from the land tax, and 88,500,000 lire from the building tax; 216,125,000 lire from taxes on transactions, including 67,900,000 lire from stamps, 58,000,000 lire from registration, 19,800,000 lire from railroad receipts, 11,400,000 lire from com-

mercial companies and banks, 37,500,000 lire from succession duties, 6,300,000 lire from mortmain revenues, 7,300,000 lire from the duty on mortgages, 7,250,000 lire from various concessions, and 675,000 lire from consular fees; from customs, monopolies, and excise, 672,615,000 lire, including 188,250,000 lire from the tobacco monopoly, 74,000,000 lire from salt, 48,000,000 lire from duties on the manufacture of beer, spirits, mineral waters, gunpowder, and sugar, 65,500,000 lire from the lottery, 51,865,000 lire from excise duties, and 245,000,000 lire from customs; from public services, 89,711,600 lire, including 55,000,000 lire from the post office, 14,500,000 lire from telegraphs, 1,400,000 lire from the cadastral survey, 2,500,000 lire from assay stamps, 7,200,000 lire from scholastic fees, 5,408,000 lire from prisons, 1,460,000 lire from fines, and 2,243,600 lire from various services; from repayments, 22,263,184 lire; from various departments, 20,342,500 lire; from rents of domains, 15,510,555 lire; from interest on invested funds, 18,913,388 lire; from communal contributions of Rome and Naples, 27,950,947 lire; miscellaneous receipts, from railroad construction account, 565,465 lire; effective extraordinary receipts, 9,858,046 lire; from sales of domains, 1,907,172 lire; from sales of ecclesiastical lands, 2,810,000 lire; from redemption of lands, 325,500 lire; from sales of property, etc., 9,217,842 lire; from recovery of debts, 4,000,000 lire; miscellaneous extraordinary receipts, 6,646,350 lire. The expenditures were 474,593,831 lire for interest on the consolidated debt; 61,498,696 lire for extinguishable debts; 26,802,676 lire for the annuity for the purchase of the railroads of upper Italy; 118,407,646 lire for interest on floating debt, including 16,594,194 lire on Treasury bonds, 15,557,000 lire due to railroad companies, 82,262,452 lire on railroad guarantees, and 8,994,000 lire on accounts current; 16,050,000 lire for civil list and appanages; 5,720,000 lire for pensions; 2,201,200 lire for the Senate and Chamber of Deputies; 9,654,984 lire for general expenses of the Ministry of the Treasury; 1,001,260 lire for various services; 3,500,000 lire for a reserve for unforeseen expenses; 18,913,387 lire for the service of the amortizable debt 2,695,986 lire for interest, etc.; 37,660,794 lire for extraordinary expenditures of the Ministry of the Treasury; 28,724,917 lire for administration of the Ministry of Finance and the cadastral survey; 149,540,622 lire for the cost of collecting revenues, monopolies, lottery, etc.; 3,470,910 lire for extraordinary expenditures of the Finance Ministry; 12,830,000 lire for the Ministry of Foreign Affairs, 12,797,930 lire for ordinary, and 23,000 lire for extraordinary purposes; 40,200,718 lire for the Ministry of Grace and Justice, 40,175,798 lire for ordinary and 24,920 lire for extraordinary purposes; 45,064,889 lire for the Ministry of Education, 44,625,844 lire for ordinary and 439,045 lire for extraordinary purposes; 66,198,946 lire for the Ministry of the Interior, 64,198,946 lire for ordinary and 2,329,097 lire for extraordinary purposes; 75,142,641 lire for the Ministry of Public Works, 27,978,423 lire for ordinary and 47,164,218 lire for extraordinary purposes; 60,149,045 lire for the Ministry of Posts and Telegraphs, 60,089,029 lire for ordinary and 60,016 lire for extraordinary purposes; 279,344,783 lire for the Ministry of War, 263,306,783 lire for ordinary and 16,038,000 lire for extraordinary purposes; 105,963,646 lire for the Ministry of Marine, 101,843,646 lire for ordinary and 4,120,000 lire for extraordinary purposes; 11,367,523 lire for the Ministry of Agriculture, Commerce, and Industry, 9,139,838 lire for ordinary and 2,227,685 lire for extraordinary purposes. The total expenditure on account of the debt in 1898 was 589,519,598 lire for interest and 3,487,048 lire for amortization.

The Army.—The military forces consist of 96 regiments of infantry, including 2 regiments of grenadiers, each formed of three battalions of 4 companies, the strength of the regiment being 54 officers and 1,374 men, besides a depot of 5 officers and 31 men; 12 regiments of *bersaglieri*, each having a complement of 53 officers and 1,346 men, with a depot; 7 regiments of alpine troops, comprising 22 battalions, containing 75 companies, each regiment having its depot; 24 regiments of cavalry, of 6 squadrons, including 10 regiments of lancers, each regiment containing 36 officers and 1,008 men, besides a depot of 7 officers and 60 men, with 4 additional depots for remounts; 24 regiments of field artillery, the 12 regiments of corps artillery having 2 brigades of 4 batteries, one with 6-centimetre and the other 7-centimetre guns, while the 12 regiments of divisional artillery have both brigades armed with 9-centimetre guns and only 1 company of train, instead of 2 companies, every regiment having its depot; 1 regiment of horse artillery, consisting of 6 batteries of 6 guns, with 4 companies of train and a depot; 11 brigades of fortress artillery and 11 of coast artillery, with 5 companies of artificers and 1 of veterans; 5 regiments of engineers, 2 of which consist each of 12 companies of sappers, with 2 companies of train and a depot, 1 of 8 companies of pontonniers, besides 2 companies for lagoons, with 3 companies of train and a depot, 1 regiment of 12 companies of telegraphists and 2 companies of specialists for carrier pigeons, electric lighting, signal service, balloon service, etc., with 2 companies of train and a depot, and 1 brigade of 6 companies of railroad troops: 11 legions of carbiniers, or gendarmes, comprising 43 divisions, and numbering about 3,900 mounted men and 21,000 foot, with 1 legion in training and a depot; 12 companies of sanitary troops, 12 of commissary, 1 company of invalid, and 12 companies of disciplinary troops. The peace effectives in 1898 were 290 officers of the general staff, 8,017 officers and 143,750 men in the infantry, 960 officers and 23,590 men in the cavalry, 1,739 officers and 34,980 men in the field artillery, 597 officers and 8,969 men in the engineers, 585 officers and 2,593 men in the sanitary corps, 325 officers and 2,036 men in the commissary corps, 1,183 administrative officers, 551 officers and 23,945 men in the carbiniers, 1,388 men in the military schools, and 191 officers in the veterinary service; total, 14,438 officers and 241,151 men, with 49,304 horses and mules. The war strength was 36,425 officers, 241,151 men of the permanent army with the colors, as enumerated above, 501,527 men of the permanent army on leave, 349,204 men in the mobile militia, and 296,386 men in the territorial militia, making a total of 1,424,693 men of all ranks. This does not include the second category, numbering 368,898 men who have only had from two to six months of training, nor does it include 1,506,774 men who are in the third category, who have had practically no instruction.

The Navy.—The Italian navy in 1898 comprised 12 battle ships of the first class, 2 of the second, 6 of the third, 5 of the fourth, 9 of the fifth, 13 of the sixth, and 3 of the seventh; 6 torpedo craft of the first class, 94 of the second, 38 of the third, and 6 of the fourth; 2 auxiliary vessels of the first class, 8 of the second, 11 of the third, and 18 of the fourth; 30 vessels for post service, 24 tugs, 9 dredging vessels, 6 gunboats for the lagoons, 16 torpedo launches, 2 submarine boats, and 8 auxiliary cruisers. There were building 3 first-class battle ships, 2 armored cruisers, and 1 protected cruiser, and 4 torpedo boats had been ordered. The navy was manned by 1,546 officers, 18,174 seamen, marines, firemen, gunners, mechanics, etc., on the fleet and 5,455 on the shore; total, 25,175 officers and men.

Commerce.—The value of the special imports of merchandise in 1897 was 1,192,100,000 lire, and of exports 1,092,700,000 lire. The imports of precious metals were 8,700,000 lire, and the exports 23,100,000 lire.

Navigation.—The merchant marine in 1897 comprised 351 steamers, of 237,727 tons, and 6,002 sailing vessels, of 527,554 tons.

Communications.—There were 9,714 miles of railroad in operation on Jan. 1, 1898. The telegraphs on July 1, 1896, had 27,100 miles of line, with 99,612 miles of wire. There were 7,616,658 internal, 1,937,482 international, 352,731 service, and 126,413 transit messages transmitted in 1896.

Session of the Chamber.—The Chamber reassembled on Jan. 25 and elected Signor Biancheri president in the place of Signor Zanardelli, who had been appointed Minister of Justice. The reduction of the wheat duty was approved by 198 votes to 37. The question of reorganizing the state banks, which were loaded down with real estate, taken under foreclosure at the time of the late financial crisis, and had not metallic reserves sufficient to secure the bank-note circulation, was the next thing to occupy the attention of the Chamber. Minister Luzzati stated that the Bank of Naples was solvent, but must have twenty years to realize on its assets. The relations of Francesco Crispi to the Bologna branch was investigated by a commission, which reported on March 18 that there was no law permitting the impeachment of the ex-Premier, as his acts did not constitute a crime in common law, but that these, nevertheless, were deserving of the censure of the Chamber. He had received 500,000 lire, which he professed to have used for the secret service, that Luigi Favilla, the director of the branch, had embezzled; but there was no evidence that he was a knowing party to the defalcation. He had committed irregularities, not only in obtaining the money from the chartered bank, but in repaying the advances partly with money furnished by a political supporter and partly with police funds appropriated for the suppression of the Sicilian disturbances, and also by interfering repeatedly to prevent the examination of the condition of the Bologna branch bank and the prosecution of his friend Favilla. Signor Costa, the late Minister of Justice, had on his part sought to strain the law, and coerce the tribunals in order to secure Crispi's conviction as a common criminal. The report of the commission was approved by 207 votes to 7, Crispi's own friends to the number of 65 not voting. The ministry proposed to extend a state guarantee to the provincial and communal debts, amounting to 1,000,000,000 lire, so as to enable them to be converted from 5-per-cent. to 3½- or 4-per-cent. loans. The project was opposed as endangering the financial stability of the Government and affording opportunities for parliamentary corruption, but the Finance Minister got a bill passed establishing a separate department of the State Loan and Deposit Bank in order to facilitate the conversion of such loans as have been contracted at unreasonable rates of interest. The Chamber accorded to the Minister of Marine the right to sell the cruisers "Varese" and "Garibaldi," but only the votes of the Republican Deputies saved the Cabinet from a defeat on this question.

Bread Riots.—Owing to the rise in the price of bread, riots, incited by anarchist agitators, occurred during January, 1898, in Ancona and other towns in the Marches. The Government took severe military measures of repression, and proposed at the same time concessions for the relief of distress and a bill for the reform of public safety. The stringent provisions of this bill provoked so much criticism that it was withdrawn. A royal decree was issued on Jan. 24 reducing till April 30 the import duty on

grain from 7½ lire a quintal to 5 lire. The peace footing of the army, instead of being reduced in the winter to 140,000 men, was, on account of the unsettled state of the country kept up to 180,000 men. A Radical Socialist mass meeting in favor of the total abolition of the duty on breadstuffs was not only forbidden to be held, but the streets of Rome were patrolled by eight battalions of infantry to prevent any demonstration. The Government promised to start public works and to remit the most onerous of the taxes for the alleviation of the general misery. On Feb. 18 the troops fired on a mob of bread rioters at Strofina in Sicily, killing two peasants.

When the Chamber voted 100,000 lire to aid the poor the King gave 150,000 lire. Toward the end of April, when bread mounted to a famine price, collisions took place between the *carabinieri* and the populace at Bari, Rimini, Parma, Ravenna, and other places, and quiet was only temporarily restored when the price was reduced to 35 centimes a kilogramme by the public authorities. Rioting occurred on May 2 at Faenza, Bari, and Foggia, and in Neapolitan districts and at Ravenna and Leghorn manifestations of discontent. The municipal authorities promised to reduce the price of bread at the public expense, and the Government gave a pledge that railroad rates should be lowered. Three classes of reserves of the *carabinieri* were summoned to the colors. On May 3 the troops fired on the people at Piacenza and Bagnacavallo. After more demonstrations at Palermo, Florence, Leghorn, and other places the Government on May 4 decreed the entire suspension of the duty on wheat. The *octrois* were also abolished. These tardy concessions, granted only to stop dangerous tumults, only emboldened the revolutionary spirits. On May 5 several thousand rioters disputed the possession of the streets in Pavia with the police and troops, many of whom were injured before they fired, killing a son of Signor Mussi, the Radical Vice-President of the Chamber. Barricades were erected and wires stretched across the streets to stop cavalry. At Leghorn also the disturbers could not be driven away by several charges of the military, and at Sesto Fiorentino the soldiers, after being stoned severely, fired a volley, killing four rioters. The disturbances extended throughout the southern and central parts of Italy. The people coupled their demand for bread with the cry for social revolution. The riots assumed, more and more, a political character.

Disturbances at Milan, which began on May 6, became an insurrection. The trouble began with the rescue of a man who was arrested for distributing Socialist leaflets in a great rubber factory. The rescuers were set at liberty through the intercession of Socialist Deputies. Nevertheless, soldiers who were sent to guard the works were stoned, and these, after first firing in the air, discharged a volley into the crowd, killing 2 and wounding 12. On the morning of May 7 the workmen of the factory, 2,000 in number, struck work, were joined by the men of the other factories of the city, and began rioting simultaneously at several points. The street cars were overturned to form, with other material, no fewer than 17 barricades. Telegraph wires were cut and strung across the streets to impede cavalry charges. Breaking into palaces and other large buildings, rioters mounted to the roofs and hurled down tiles and stones upon the soldiers until sharpshooters were posted on higher roofs to pick off the stone-throwers. Soldiers were fired upon from behind window blinds, and they lined up and fired at the windows and into the crowds, killing a great number of persons. At one of the gates the troops had to fight thousands of

peasants armed with scythes and hatchets, who tried to join the workingmen. Cavalry charges and volleys of infantry were used against the latter, but the barricades did not fall until cannon were employed. Some women and children were killed by grapeshot entering windows. The number of persons killed during the two days was 75, the number of wounded treated in the hospitals 70. In Pisa and Genzano were similar uprisings, and tumults occurred in Brescia, Treviso, Verona, and Padua. At Luino and Novara many lives were lost. On May 7 martial law was proclaimed throughout Tuscany. The insurrectionary elements were workingmen and students. A state of siege was proclaimed in Milan. The circulation of news and comments on current events were forbidden. The possession of weapons was prohibited, even to those having licenses. Public meetings of every kind were declared illegal. Whoever infringed the regulations of the Government was liable to be tried by court-martial. When the soldiers first charged the barricades many men and women were killed or maimed. One of the main squares, barricaded at every entrance, was held by the mob for a long time, and it was only by the utmost bravery that the *bersaglieri* finally forced their way in. On the outer boulevards several thousand rioters, after a company of *bersaglieri* had fired a volley and killed a number of them, advanced on the soldiers and with a shower of stones drove them into the river, and then returned to the barricade they were building with overturned wagons.

The workingmen, though lacking effective weapons, displayed remarkable tactical knowledge and a degree of discipline that indicated previous organization and preparation for an uprising. The fighting lasted two days and was of the most sanguinary kind. The women, instead of restraining their husbands, urged them on, and even rushed in front of the soldiers, calling them cowards and assassins. Trains bringing recruits who were called to the colors were stopped by rioters and turned back. Men and women threw themselves in front of railroad trains to prevent them from proceeding. In the evening of May 8 bands of students, arriving from Pavia with revolvers, were repelled by the soldiery as they attempted to enter the city. The students were received in the Capuchin convent in one of the suburbs, where they intrenched themselves and fired upon a detachment of soldiers that was marching by. The soldiers returned with cannon, made a breach in the convent wall, and entered, but the students had fled. All the Capuchin friars were arrested and taken to prison, from which Gen. Bava refused to release them at the request of the prefect. Archbishop Ferrari, who had left the city at the beginning of the disorders and had taken no notice of the events that were passing, in contrast with the conduct of the Archbishop of Cremona, who inveighed against the revolutionaries, both anti-Clerical and Clerical, interceded with Gen. Bava, only to receive a severe rebuke for deserting his post instead of restraining the inflammable element in his flock. Later the friars were given into the custody of the ecclesiastical authorities, who gave a pledge for their good behavior. The Government suspected the Clericals of being as deeply implicated and as active in the revolutionary conspiracy as the Republicans, and the Papal press contained as incendiary matter as the Socialist organs. The Milan insurgents were masters of the city on May 8, and had Gen. Bava's troops entrapped in a ring of barricades commanding every gate of the city. The Government only gained control of the situation when Gen. Leone Pelloux, with half an army corps, marched on Milan from Lodi and cleared out the rebels with round

shot. Workingmen and peasants, even laborers working in France and Switzerland, were then hastening to Milan to take part in the revolution. These disturbances, beginning in the south, had followed the railroad from Brindisi through Bari, Molfetta, Foggia, Chieti, Ascoli-Piceno, Pesaro, Rimini, and Ravenna, to Ferrara, and then by Cremona, Piacenza, and Pavia, to Milan, indicating some connection with the Socialistic organizations of railroad employees. Therefore the Government decided to place the railroads under the control of the military. Want of bread was the cause of the first outbreaks in Sicily and the Neapolitan province, but this was only a pretext in the richest parts of central Italy, in Tuscany, and in Lombardy, where the workmen in every instance struck work in order to engage in the uprising, which spread from town to town, each moved by local pride to equal or outdo its neighbor in revolutionary exploits.

In Milan, Deputies Turati, Bissolati, and Costa were arrested. In Venice and other cities where no disturbances occurred Socialist leaders were arrested as a precautionary measure. In the following week riots broke out afresh in Naples and cannon were used to prevent the building of barricades. The whole province was declared in a state of siege. At Potedera, in Tuscany, a detachment of troops, after repeated warnings, fired into a crowd with deadly effect, killing women and infants as well as men. Newspapers were suppressed all over Italy. On May 13, owing to student demonstrations, the Government closed the universities of Pavia, Naples, Bologna, and Rome. The fermentation still extended to new districts, but the outbreaks were simple manifestations of desperate misery, no longer a prearranged and organized insurrection, for the revolutionary leaders gave up their schemes and exerted themselves to calm the people after the troops gained the upper hand in Milan. A state of siege was declared on May 10 in the provinces of Leghorn, Pisa, Sienna, Massa, and Grosseto. Another class of recruits was called out, and to avert a railroad strike all the reserves of the railroad section of the army were ordered to report to their officers for duty. A general strike of railroad employees, paralyzing the whole system of military transport, was one of the main features in the revolutionary plan, but the railroad men, though imbued to a large extent with Socialist and Republican principles, were not prepared to strike when the outbreaks occurred prematurely. On May 11 Parliament was prorogued so as to give the ministry a free hand in dealing with the situation. Revolutionary clubs, including Clerical as well as Red Republican organizations, were disbanded and the Republican leaders in all parts of the country were placed under arrest. Large numbers of arrested rioters were tried by court-martial and sentenced to imprisonment with hard labor. Editors were condemned to prison for four and six years. Very many of the persons implicated in the uprising fled to Switzerland. Ticino was already swarming with Italian revolutionists, and the Swiss Government expelled the most active and notorious ones under the law that was passed in 1892 in order to preserve public safety.

Ministerial Crisis.—Before the reassembling of Parliament the ministry had to decide on what restrictive measures were called for to check the elements of disorder and prevent a recurrence of revolutionary outbreaks. The leniency which the Government showed in the beginning to the bread rioters was severely censured by the Conservatives, who had lost faith in the Premier since his dissolution of the Chamber in 1897 and his dependence in the new Parliament on Republican and Socialist support. The extraordinary development of Radi-

cal, Republican, Socialist, and anarchist organizations was believed to have been promoted and encouraged by the weakness of the Marquis di Rudini and his colleagues, who preferred to retain office by the favor of the extreme sections and to pay the price of their support in critical emergencies rather than resign. The aim of the revolutionary parties was to establish a federal republic, organized more or less on Socialist or anarchist principles. There was an active and influential element which has been working for years through bishops, priests, and religious orders to stir up and keep alive political discontent, and has secretly co-operated with the Republican and Socialist parties, hoping by the overthrow of the house of Savoy and the formation of the federal republic to pave the way to the re-establishment of the temporal power of the Pope.

The differences between the Conservative Minister of Foreign Affairs and the Radical Ministers of Justice and of Education had led to a crisis before the occurrence of the riots, and this became irremediable when the Cabinet came to discuss, on the one hand, the restriction of the liberty of the press and the right of association and public meeting, and, on the other, the remission of taxes and the drainage of extensive marshes and other public works designed to conciliate the turbulent working classes. Signor Zanardelli, the Radical leader, had agreed to restrictive measures and thereby angered his own group. He insisted, however, that any modifications in the laws of association and the press should be applied with the same rigor against Clericals as against Republicans or Socialists. The Marquis Visconti Venosta, unwilling to countenance a Radical campaign against the Church, insisted on resigning, rendering the resignation of the whole unavoidable. When the Marquis di Rudini on May 28 handed in the resignations of the ministers, King Umberto commissioned him to form a new ministry. The Cabinet was constituted on June 1 as follows: President of the Council, Minister of the Interior *ad interim*, and Minister of Agriculture, Marchese di Rudini; Minister of Foreign Affairs, Marchese Raffaele Capelli; Minister of Justice, Signor Bonacci; Minister of Finance, Signor Branca; Minister of the Treasury, Signor Luzzatti; Minister of War, Gen. di San Marzano; Minister of Marine, Admiral Canevaro; Minister of Public Instruction, Signor Cremona; Minister of Public Works, Gen. Afan de Rivera; Minister of Posts and Telegraphs, Signor Frola.

The new Cabinet adopted the restriction of municipal suffrage which was a part of the legislative programme of the retiring ministers, who proposed also to postpone for a year the elections for fear that the increasing discontent caused by bad harvests, dear bread, and lack of employment would result in a larger contingent of revolutionaries being elected to the local bodies. To counterbalance the changes in the press law and in the right of association the Government proposed to improve and drain different parts of the country, to abolish *octrois* in the smaller communes, and to restore the lands of peasants which had been seized for nonpayment of taxes. Other items of the ministerial programme were provision for the annual cost of railroad construction by a loan, the diversion of a part of the sinking fund for current expenses, a state monopoly of matches, and an increase in the state allowances to parish priests. Parliament reassembled on June 16. The Marquis di Rudini, not the new ministers who had taken office in his fifth Cabinet, was now deserted by Signor Zanardelli and the Left, and was attacked from all quarters for the confusion, the tergiversation, the alternate weakness and violence of his administration, the policy of expedients and

compromises that he had followed for two years, using up more than a score of ministers and abandoning four or five programmes. Foreseeing a crushing defeat, the Marquis di Rudini on June 19 placed the resignations of the ministers and his own in the hands of the King, "in order not to prejudice a grave question of public order," he explained.

On June 29 the crisis was ended by the advent of a ministry composed of members of the various groups of the Left, which was formed by the former Minister of War under Signor Giolitti, as follows: President of the Council and Minister of the Interior, Gen. Pelloux; Minister of Foreign Affairs, Admiral Canevaro; Minister of Justice, Signor Finocchiaro-Aprile; Minister of the Treasury, Signor Vacchelli; Minister of War, Gen. di San Marzano; Minister of Marine, Admiral Palumbo; Minister of Public Instruction, Prof. Bacelli; Minister of Public Works, Signor Lacava; Minister of Agriculture and Commerce, Signor Fortis; Minister of Posts and Telegraphs, Signor Nunzio Nasi; Minister of Finance, Paolo Carcano. The new ministry presented no definite legislative programme. Gen. Pelloux described its policy as absolute maintenance of order, jealous protection of society and the institutions, and pacification of the public mind; its programme as one of administration, work, tranquillity, and justice. The Chamber sanctioned the prosecution of Deputies Turati, de Andreis, and Morgari, charged with complicity in the Milan uprising; postponed the local elections for a year; conferred upon the Government discretionary power to maintain, abolish, or limit the application of the state of siege and the extraordinary powers given to military commissioners at the time of the disturbances; revived a law regarding enforced residence of political criminals; and sanctioned the militarization of railroad, telegraph, and postal employees, with the object of placing them under martial law and thus preventing strikes. After approving these measures, combined in a bill for the preservation of public order, by a vote of 177 against 37, the Chamber adjourned on July 12, and the session, which had lasted fifteen months, was declared closed. Among its legislative enactments were bills establishing pensions for old and disabled workmen and regulating the liability of employers and Gen. Pelloux's army reform bill. The state of siege was abrogated in most districts before the end of July, but in Milan was continued a few days longer until the military courts, which had already convicted about 700 individuals, finished the trial of the accused Deputies. Of these Turati and de Andreis were convicted and sentenced to solitary confinement for twelve years. The sentences passed by the tribunals at Naples were extremely severe, like those of the Milan courts, which meted out over a thousand years of penal servitude to the condemned rioters. Gen. Pelloux enjoined upon the prefects the duty of hindering absolutely or energetically repressing every act and all propaganda of a subversive character, as well as all incitement to class hatred. In September suspected anarchists were arrested all over the kingdom, especially in the industrial centers of the north. Many who fled to Switzerland were expelled under the Swiss antianarchist law. After the assassination of the Empress of Austria Italians were arrested in Hungary and Austria and in Spain. The Italian Government proposed to hold an international conference to consider measures for the repression of anarchists, defined as a class of men animated by subversive principles, pursuing the avowed aim of sapping the bases on which society, as at present constituted, rests, and of overthrowing it altogether — fanatics, who do not recoil from any crime, how-

ever ferocious or insensate, profess principles which they themselves denominate as anarchistic, and carry on their propaganda by a secret press which extols odious crimes and deeds of violence as the most effective means of waging the war they had declared against society. Favorable replies were received at once from France, Austria, Germany, and Belgium. The Russian and other governments gave their adhesion also, England last, with a suggestion that a concrete basis of discussion be formulated in a circular. This was acceptable to the other governments, and the conference was appointed to meet at Rome on Nov. 25. The new Minister of Marine proposed a programme of naval construction involving the expenditure of 540,000,000 lire in eight years, but as the suspension of the wheat duties left a deficit, the other ministers would only agree to an increase in the credit for construction for 1899 to about 30,000,000 lire.

Signor Vacchelli's budget statement on Nov. 23 showed that the year 1898 had really closed with a deficit of 1,100,000 lire, instead of a surplus of 10,000,000 lire, and that, instead of the anticipated surplus of 37,000,000 lire in 1899, a deficit of 14,000,000 lire was to be looked for, while the cessation of various sources of revenue, with the outlay for railroad construction, would create in the next two years a deficiency of 46,000,000 lire. This he proposed to cover by using the fund destined for the redemption of debts and proceeds of the sales of the property of suppressed religious corporations. The floating debt, which should be reckoned at 560,000,000 lire, and not at 410,000,000 lire, the Government intended to convert into 4½-per-cent. consols. The Minister of the Treasury rejected the proposal of his predecessor to create a sinking fund for the relief of small taxpayers, but intended to abolish *octrois* on bread and flour, amounting to 30,000,000 lire a year, indemnifying the communes by imposing other taxes. The state would be in-

demnified by changes in the taxes on buildings, on business transactions, and on persons exempted from military service. Other reforms were promised for the relief of agriculture and industry from taxation. If the revenue of the state should diminish in consequence of these changes, the wealthier classes would be compelled to contribute more largely to the expenses of the state by means of a progressive income tax.

Colonies.—The Italian possessions on the Red Sea coast, extending from Cape Kasar to the southern limit of Raheita, on the Strait of Bab-el-Mandeb, embracing an area of 88,500 square miles, with a population estimated at 450,000, were organized in 1894 as the colony of Eritrea, having an autonomous civil administration and the management of its own finances. By the treaty of peace signed at Adis Abeba on Oct. 26, 1896, Italy renounced the protectorate claimed over Abyssinia and relinquished all the territory occupied south of the rivers Mareb, Belesa, and Muna. Kassala, a post in the Egyptian Soudan that was occupied by Italian troops, was restored to Egypt in December, 1897. The expenditure of the colony for 1898 was estimated at 19,800,000 lire, of which only 1,900,000 lire could be raised from local resources, leaving for the Italian Government to supply the sum of 17,900,000 lire. The total cost of the colony to the Italian treasury from 1882, when Massowa was first occupied, to the end of 1896 was 303,950,926 lire, of which 123,738,064 lire were spent during the warlike operations of 1895 and 1896. The port of Massowah has 7,775 inhabitants, of whom 600 are Europeans and 480 Asiatics. Trade is mostly carried on by Banians from India. The imports in 1896 were valued at 28,442,551 lire. Meat, hides, butter, pearls, and mother-of-pearl are exported. There were 5,811 vessels, of 248,567 tons, entered, and 5,782, of 251,807 tons, cleared at Massowah in 1896. (See ABYSSINIA and EAST AFRICA.)

J

JAPAN, an island empire in Asia, east of the continent and extending from the Philippine to the Kurile Islands. The long and narrow archipelago includes 4,000 islands, of which about 500 are inhabited. The total area is 169,140 square miles. The extremities of the empire are in north latitude at 21° 48' and 50° 56', and in east longitude at 156° 33' and 119° 20'. For administrative purposes the empire is divided into 47 districts, 705 *gun* or sub-districts. There are 44 *shi* or large cities, and 14,782 cities and villages. The Emperor, Mutsuhito, is the one hundred and twenty-second in the line of Mikados. The heir apparent, Yoshihito, was born Aug. 31, 1877. The imperial throne is succeeded to by imperial male descendants. The Emperor exercises the rights of sovereignty, but shares legislative power with the Imperial Diet, which he has the right of proroguing or dissolving. In the upper house of the Imperial Diet are 316 peers and imperial nominees. In the lower house are 300 members, elected by male voters, who must pay national taxes to the value of \$15 annually. His Privy Council is composed of 20 veteran statesmen, and his Cabinet of the 10 heads of departments. Besides this central administration there are the 4 provincial governments subordinate to the Emperor—the prefecture of the police of Tokio, department of colonization for the island of Yezo, the Fu and Ken (prefectures and districts), and the government of the island of Formosa. The total number of salaried employees in the National Government in 1896 was 57,502, whose

salaries amounted to 14,516,262 silver yen. (A yen is worth 50 cents.) Since Oct. 1, 1897, Japan has used the gold standard.

The total population of the empire, Dec. 31, 1897, was 46,000,000. On Dec. 6, 1898, the Imperial Diet unanimously voted to the Emperor \$20,000,000 out of the Chinese indemnity fund, because "the victory over China in the late war was absolutely due to the power and glory of the Emperor, and the gift is in accordance with the will of the people."

Finances.—The budget for 1897-'98, as officially published and digested in that annual publication by the Imperial Cabinet, shows a total revenue of 288,709,484 yen, of which 121,428,570 yen are under the head of ordinary, and 117,280,914 yen are extraordinary receipts. The chief items of revenue are from the land tax, the manufacture of *sake*, patent rights, imposts and customs, and various state enterprises. Under extraordinary receipts are the Chinese indemnity, 50,509,121 yen, and bonds, 61,329,500 yen. The total expenses were 249,547,286 yen, of which 112,310,798 yen were ordinary and 137,236,488 were extraordinary expenses. In the former the chief items were: Interest on the public debt, 22,828,942 yen; for the War Department, 29,129,378 yen; and for communications, 11,671,749 yen. In the latter 66,994,126 yen for the navy and 31,484,591 yen for the army are noted. Japan's public debt in 1897 was 419,380,217 yen, most of it bearing interest at 5 per cent. In the same year there were 289,322,349 yen of metal money in circula-

lation, of which 70,000,000 yen were in gold and 200,000,000 yen were in silver; while of the 196,129,826 yen of paper money in circulation, 9,045,082 yen were in treasury notes, 13,610,995 yen were in national bank notes, and 173,473,749 yen were in silver certificates. During the past year, which has seen the rise of four cabinets and the fall of three, the great problem has been to find the agreement upon the method of taxation, in order to meet the deficit which the great military and naval expansion since 1895 has called for. The burning point of politics is upon the question of raising the land tax from 2.5 to 5 per cent., which was finally done almost unanimously by the Imperial Diet at its twelfth session Dec. 20, 1898. The expenditures for the army and navy on their increased footing are estimated at 40,000,000 yen, against 16,000,000 before the war with China; and for this, with various other enterprises, the yearly payments of interest alone must amount to 17,000,000 yen, which, with the Formosan expenses, means an increase of nearly 65,000,000 of annual expenditures. To meet these, two new taxes—a registration tax and a trade tax—and two increases of tax upon tobacco and *sake* were necessary. The budget for 1898-'99, compiled by Premier Matsukata, showed a deficit of 23,000,000 yen, but that prepared by Count Monye in March reduced expenditures to the extent of 46,000,000 yen. Germany takes in direct taxes from her subjects 7.50 yen per head, Japan takes but 2.30 yen.

Navy.—On March 1, 1898, the Japanese navy, afloat or building, included 4 first-class and 2 second-class battle ships; 18 cruisers, 4 being in the first, 9 in the second, and 5 in the third class; 10 coast-defense ships of the third class; 17 gunboats, 2 of the first and 15 of the second class; 4 dispatch vessels; 1 torpedo-depot ship; 8 torpedo destroyers and 30 torpedo boats, 6 of the first, 4 of the second, 23 of the third, and 1 of the fourth class, making a total of 92 war ships. There are navy yards at Yokosuka, Kure, and Sasebo, with dry docks and most of the appurtenances of first-class naval stations, while on all the newer ships are the fullest resources known to the modern science applied to naval war. The "Shikishima" and "Asahi," to be completed in October, 1899, are the largest war ships in the world, of 15,037 tons, carrying 50 guns each. On Dec. 31, 1896, Japan had in her active navy and in the naval reserve 353 superior officers, 950 officers, 837 naval cadets, 2,221 noncommissioned officers, and 15,597 sailors and marines, a total of 20,028, besides 1,172 functionaries in the Navy Department.

Army.—On Dec. 31, 1896, Japan had in her military establishment 88 generals, 947 superior officers, 5,618 officers, 5,054 cadets, 25,855 noncommissioned officers, and 250,341 soldiers, a total of 287,858, with 3,413 employees in the Department of War. The Imperial Guard, of 12,781 men, is in Tokio, where also is the First Division, and there are large barracks at Sendai, Nagoya, Osaka, Hiroshima, and Kumamoto. In these places there is a division numbering from 12,000 to 16,000 men. The garrisons in Formosa numbered 13,569. Of the total given above, 119,478 men are serving with the colors, 99,454 are in the reserve, and 68,926 belong to the territorial army. In 1895, of 449,834 young men before the recruiting officers, 394,811 had just attained the age of conscription, and 55,023 were above the age of twenty years. Of the total, 80,208 were put into active service or under military instruction in the reserves. In every thousand inhabitants there are 9.39 conscripts twenty years old; 19.87 out of every hundred conscripts are taken into the army; 5.48 in every hundred capable of military duty plead excuse; and 8.94 in every hundred conscripts are freed from duty.

Religion.—The chief religions are Shinto, Buddhism, and Christianity. In 1895 there were 101,142 Shinto priests, pupils, or preachers, and 134,242 shrines and temples. There were 104,738 Buddhist priests or preachers, with 9,286 pupils, monks, or nuns, and 118,324 shrines and temples, divided among the 10 large sects and numerous smaller ones. Of adherents to the Roman Catholic Church there were 52,796 in September, 1897, and to the Russo-Greek Church 23,856. Of members of Protestant churches there were 40,578. The native Protestants contributed 81,552 yen, and the Greek churchmen 5,658 yen for religious purposes. Of Protestant missionaries there were 652, of Roman Catholics 315, and the Russo-Greek Church 2. Of organized churches there were: Protestant, 364; Russo-Greek, 168; Roman Catholic, 208. Of native churches wholly self-supporting there were: Protestant, 72; Russo-Greek, 1. Of churches partly self-supporting there were: Protestant, 312; Russo-Greek, 167. Of adult converts baptized there were, Protestants 3,062, besides 1,348 children. In the Russo-Greek Church there were 992 adults and children, and in the Roman Catholic church there were 2,031 adult and 3,083 infant baptisms. The number of schools and colleges of all communions was 231, with 12,642 pupils, besides Sunday schools, hospitals, dispensaries, and most of the appliances of Christianity in America and Europe.

Foreign Trade.—The total value of the foreign trade of Japan in 1897 was 382,485,848 yen, against 289,517,234 yen in 1896, an increase of 92,918,614 yen, or over 32 per cent. Against 1888, the corresponding figures were 181,160,744 yen, showing that the foreign trade has trebled in a decade. These figures also show that Japanese merchants are invading the domain formerly monopolized by foreigners; for in 1888 the direct exports by Japanese traders represented only 7,061,824 yen out of a total of 65,704,510 yen, whereas in 1897 they rose to 44,244,286 yen, in a total of 163,135,077 yen. In imports the increase has been 36 per cent., or 79,560,939 yen in 1897, out of a total of 219,300,771, as compared with 8,483,739 yen in a total of 65,455,234 yen in 1888. The Japanese have labored to get rid of the foreign middleman, and they have succeeded; but the foreigner as an agent holds his own. The trade movement shows also that Japan is becoming more and more a manufacturing country, increasing in her imports of machinery and raw material, and decreasing in the quantity of manufactured goods. In 1897 she imported 67,167,342 yen: of raw cotton, 43,630,214 yen; of machinery, 12,291,037 yen; of steel, iron rails, and railway equipments, 10,188,609 yen; and of wool, 1,057,482 yen. Her imports of manufactured stuffs amounted to 28,018,431 yen. These were in the form of cotton yarns, cotton goods, muslin, shirtings, flannel, and woollen cloth. Her own exports of manufactured stuffs amounted to 29,232,247 yen, in which three prominent items were cotton yarn 13,490,196 yen, and *habutai* (light summer silks) 9,530,676 yen, and silk handkerchiefs, 3,890,145. The growth of the *Habutai* industry is almost wholly from the year 1891, when 42,377 pieces, valued at 818,537 yen, were exported, compared with 642,801 pieces in 1897, valued at 9,530,676 yen. In the making of cotton yarns nearly a million spindles are now at work. All the exports show a general increase, that of silk amounting to 27,000,000 yen. The chief items in the net increase of 48,000,000 yen of imports are: In machinery and raw materials, 21,750,000 yen; and in sugar, rice, peas, and beans, 24,500,000 yen. The latter owing to the bad harvest of 1896. In sugar there has been an increase from 7,000,000 in 1888 to over 20,000,000 yen in 1897. In paint the increase from 1,206,313 pounds in 1888 to 3,085,062

yen is noticed. The growth of the tea trade has been very steady, from 8,595,450 caddies to 36,674,548 caddies in 1896; and 206,402 families are engaged in this industry.

Politics and Events.—The "Nara Maru" was wrecked with the loss of sixty lives. Prince Shimadzu of Satsuma died. A new Cabinet was formed by Premier Ito, and general elections were ordered for March 15. The Government issued \$10,807,350 worth of loan bonds bearing interest at 5 per cent. Rev. Guido F. Verbeck, D. D., the most influential of all the foreigners that ever came to Japan, long the adviser of the Government, died in Tokio, March 10, after forty years of life among the Japanese. The Red Cross Society's report shows 455,638 members who subscribed 1,262,171 yen. New treaties with France and Austria were ratified. On April 30 the Emperor issued a proclamation of neutrality in the Spanish-American war. Three war ships had been sent to Manila to watch operations. The promoters of the Formosa Railway scheme secured a loan of \$15,000,000 in England. The Diet was formally opened by the Emperor May 19, but neither the Government nor the Opposition had a majority, and, as the lower house refused to pass the bill for increase of the land tax, it was dissolved (for the fifth time in twelve sessions) on June 10, after passing the new civil code which comes (with the new treaties) into operation July 1, 1899. On June 25 the Cabinet was dissolved. Half-yearly reports show that Kobe, opened in 1869, exceeds Yokohama in total volume of exports and imports. Early in July a new coalition Cabinet, in which were Okuma as Premier and Itagaki as head of the Home Department, with a majority of untried men, yet the first real "party" (instead of a "clan") Cabinet, was formed. Prince Cyril Vladimir, from Russia, arrived July 7, and had audience of the Emperor. The general elections showed a large majority for the Government. A great discussion on prison reform occupied the press for several months. The first "party Cabinet," owing to the unfortunate allusion in a speech by the Minister of Education to Japan's possibly becoming a republic centuries hence, was dissolved, and Marshal Yamagata, with other of "the elders," was called to form another Cabinet. An alliance with the Liberals was made, the latter promising to support the land-tax bill and the former agreeing to the newer principle of a cabinet governed by a party. The Diet was opened Dec. 3. A superb bronze statue of Saigo Takamori (military leader of the revolution of 1868 and also of the great Satsuma insurrection of 1877) was unveiled in Ueno Park in Tokio, Dec. 28. Thus closed the year of greatest commercial and manufacturing expansion known to Japan.

JEWS. The Dreyfus case formed the leading subject of discussion during the year, and the shifting scenes that led to the movement for revision were watched with feverish interest. With M. Zola's advocacy and the personal participation of so many Protestant leaders in France, it ceased to be a Jewish question and became inextricably involved with French progress or reaction. The new stages of the movement for a fresh trial indicate the spread of a more favorable sentiment. It is felt that only revision will satisfy both France and the civilized world that justice is maintained. While in the early part of the year slight excesses against the Jews were the order of the day in Paris, in connection with the trial of M. Zola, greater calm prevailed toward the close, and the new year's record is awaited with more hope. The success of Mme. Dreyfus in securing a hearing for her petition for revision is the climax of her efforts for her husband's release. It is significant of the general weakness of anti-Semitism that the wave of agitation due

to the Dreyfus case has spent itself in Europe. The riots in Algiers have been followed by social proscription of the Jews; but the anti-Semitic leader was displaced, and the Government is showing a firmer hand. In Germany the anti-Jewish crusade appears to have lost its virulence—the retirement one by one of its parliamentary or journalistic advocates into the solitude of the convict's cell or the gloom of the bankruptcy court indicates the character of its most notorious followers. Local ordinances in Berlin, however, and occasional diatribes in the press, prove that the agitators are still at work, even if they have failed to influence the great body of the nation, as was proved by the June elections. In Austria-Hungary riots in Galicia were the order of the day, chiefly in the remote villages where the peasantry are still dominated by mediævalism, and where the elections were made a pretext for pillage of Jewish shops and homes. The disorder was quelled by the Government, who were more successful in checking the socialistic excesses in Galician towns than in restoring sanity to Bürgermeister Lueger and his friends in Vienna. The Jews of the empire participated actively in the Emperor's jubilee.

In Russia, the tide of justice and toleration seems to be rising; the young Czar's appeal for disarmament, due largely to a pamphlet on the expenses of war, written by a Jewish banker, is perhaps only the first step in a movement to assume a more modern attitude toward dissenters. The absence of any riots or fresh restrictions, and the fact that slight concessions are made from time to time, with less harsh rulings by the courts, are hopeful signs. The Government, to a certain degree, is hampered by the Russian people, who can not be expected to countenance rapid reforms, while a large majority of the Russian Jews are still indisposed to meet the modern current and adapt their education and habits to the approaching twentieth century. That Turkey should receive the Hon. Oscar S. Straus, of New York, as United States minister, shows that the Sultan is more civilized than some other contemporary rulers.

The second Zionist Congress was held in Basel, and was more largely attended than its predecessor. It resolved, as the goal of its efforts, to secure "a legally assured home" for Jews who suffer from persecution, and to establish a bank to raise funds for buying land and concessions in Palestine. The project of establishing a Jewish state, while not directly asserted at the Basel congress, has been so tenaciously affirmed by Drs. Herzl, Nordau, and other leaders, that the whole scheme has failed to receive any wide support among the great body of Jews in England, France, Germany, Italy, and Austria, Russia and Roumania furnishing the chief contingent. One result of the agitation is to close Palestine, by order of the Sultan, to Jewish immigration, and to check the further growth of existing colonies—about twenty in number—many of which are supported by Baron Edmund de Rothschild. There were signs toward the end of the year that the movement was to be changed to an effort to organize agricultural and industrial colonies in Palestine on the plan of existing settlements, and that concessions might be secured from the Sultan. It is possible that more practical sympathy will be thus secured. During the German Emperor's visit to Jerusalem he received a Jewish deputation, and he is said to have expressed himself favorably toward the Jewish colonies. Meanwhile, numerous Zionist societies have been founded in Russia, Galicia, Roumania, and elsewhere, which are principally composed of the Russian element, with here and there a sprinkling of the native born. In England large meetings of Zionists have been held. It is significant that the

most eminent European rabbis hold aloof from the movement and regard it as unpatriotic, visionary, and mischievous. It has spread, however, with much rapidity. It appears to appeal to large numbers as the one hope in their distress, and if it is conducted with due caution and earnestness may compel recognition, so its adherents imagine. It will disappear like the snows of late winter, its opponents affirm, when civil and religious liberty is assured to the Jew in lands that still suffer from the mediæval spirit.

Continued activity in benevolent and educational work marked the year in the United States. The new Baron de Hirsch Trade School was opened in New York, \$600,000 was subscribed for the new Mount Sinai Hospital in the same city, the tenth anniversary of the Jewish Publication Society was held in Philadelphia, and a union of Jewish congregations was organized in New York—the first attempt in many years to unite synagogues of varying ritualistic tendencies. A gift of £150,000 for a new building was made by Mr. J. H. Schiff to the New York Young Men's Hebrew Association. A fair in Chicago for its United Hebrew Charities realized \$100,000. Mr. Zangwill's visit to America gave rise to lively discussion as to the modern drama and modern Judaism, and spread a number of witty epigrams on both subjects. Baroness de Hirsch gave \$7,500 to the B'nai B'rith Orphan Asylum in Atlanta, Ga. The Zionist movement is being actively pushed by Prof. Richard Gottheil, Rev. S. S. Wise, and a few others; but, except by the Russian emigrants, very little general interest is evinced in the movement. The Spanish war aroused much enthusiasm. It is said that 4,000 Jews enlisted,

and a large number were among the killed and wounded.

Among the books of the year was Mrs. Annie Nathan Meyer's "My Park Book"; Morris Rosenfeld's "Songs from the Ghetto"; Zangwill's "Dreams of the Ghetto"; Rev. Dr. Berkowitz's "Sabbath Sentiment"; the tenth part of Rev. Dr. Jastrow's "Talmudic Dictionary"; a further installment of Mr. Rodkinson's Talmud in English; "Services in Synagogue and Home," by Lewis N. Dembitz; the sixth volume of Graetz's "History of the Jews," containing a memoir of the historian by Dr. Philip Bloch, and a complete index to the entire work by Miss Henrietta Szold.

The Jewish Chautauqua held its second summer assembly at Atlantic City. The Union of American Hebrew Congregations, at its convention in Richmond, expressed its disapproval of the Zionist movement. At the session of the Central Conference of American Rabbis, in Atlantic City, in July, steps were taken in reference to issuing a Jewish cyclopædia. A similar work was announced as in course of preparation by Dr. Singer, assisted by numerous Jewish and Christian scholars.

The Jewish Sabbath-school Union of New York continued its regular schedule of lectures, and similar work to improve Sabbath-school instruction was carried on in Chicago, Baltimore, and Philadelphia. A conference of orthodox Jewish congregations was held in June in New York, favoring Zionism. Rev. Dr. Kravskopf, of Philadelphia, went to Cuba in July as one of the National Relief Commission. The Union Hymnal was published under the auspices of the Conference of American Rabbis, to accompany the Union Prayer Book.

K

KANSAS, a Western State, admitted to the Union, Jan. 29, 1861; area, 82,080 square miles. The population, according to each decennial census, was 107,206 in 1860; 864,399 in 1870; 996,096 in 1880; and 1,427,096 in 1890. By the State census of 1895 it was 1,334,688; and from a tabulation made by the Board of Agriculture from reports of township assessors, in March, 1898, it appears to be 1,389,777. Capital, Topeka.

Government.—The following were the State officers during the year: Governor, John W. Leedy; Lieutenant Governor, A. M. Harvey; Secretary of State, W. E. Bush; Treasurer, D. H. Heflebower; Attorney-General, L. C. Boyle; Auditor, W. H. Morris; Superintendent of Education, William M. Stryker; Bank Commissioner, J. W. Breidenthal; Insurance Commissioner, Webb McNall; Adjutant General, Hiram Allen—all Democrat-Populists; Secretary of the Board of Agriculture, F. D. Coburn, Republican; Oil Inspector, E. V. Wharton; Grain Inspector, W. W. Culver; Labor Commissioner, Lee Johnson; Railroad Commissioners, William M. Campbell, W. P. Dillard, and L. D. Lewelling; State Printer, J. K. Hudson; Librarian, James L. King, succeeded in March by Annie L. Diggs; Chief Justice of the Supreme Court, Frank Doster, Populist; Associate Justices, S. H. Allen, Populist, and W. A. Johnston, Republican.

Population.—The returns from assessors and county clerks in 1898 show that the State has 103 cities and towns with 1,000 or more inhabitants, against 100 in 1897; 68 municipalities have together gained 21,227, while 35 have lost a total of 5,414. Kansas City made the largest gain, 4,879, and now has 46,028. The other 7 having more than 10,000 are: Topeka, 32,651; Wichita, 20,745; Leavenworth,

20,657; Atchison, 16,266; Pittsburg, 12,323; Lawrence, 11,391; Fort Scott, 11,305.

Finances.—The eleventh biennial report of the State Treasurer shows the following summary and statements: Balance in treasury, July 1, 1896, \$606,926.72; receipts during fiscal years ending June 30, 1897 and 1898, \$5,188,548.25; total, \$5,797,474.97. Disbursements during fiscal years ending June 30, 1897 and 1898, \$5,385,323.34; balance in treasury June 30, 1898, \$412,151.63.

"On July 1, 1896, the State bonded debt was \$682,000. The State bonded debt at present is \$632,000, of which the State permanent school fund owns \$598,000, and the university permanent fund \$9,000. The \$25,000 held by individuals and corporations will fall due Jan. 1, 1899; the last Legislature provided that they be refunded at 4 per cent., and authorized the School Fund Commissioners to purchase them, provided there was not sufficient money on hand to pay them off out of the revenue fund. The general revenue fund became exhausted in October, 1897, and I was compelled for a short period to stamp \$142,629.90 warrants, 'Not paid for want of funds.' According to law these warrants drew 7 per cent. interest from date they were so stamped; they were carried by the banks at par. The amount of interest paid on them amounted to \$1,557.23. The total amount of delinquent taxes on July 1, 1898, was \$164,831.58."

Valuations.—The tax law of Kansas provides that each parcel of land or lots shall be assessed "at its true value in money," and the State Labor Commissioner has gone through the records of transfers of parcels of property in each of 10 counties in representative sections of the State to find the true money value of lands and lots.

For lands, which means farms, the Commissioner has tabulated 646 transfers of property aggregating over 70,000 acres at an actual selling value of \$1,199,447, or \$17.09 an acre, which may be taken as the average value of farm lands in Kansas under cultivation. These lands, the Labor Commissioner discovers, are assessed at \$333,004, or \$4.73 an acre. It is further shown in this tabulation that on lands of the lowest actual values the assessment is relatively highest, while on lands and lots of the highest valuations the assessment is relatively lowest. Lots are assessed at figures nearer their actual value. The Labor Commissioner reports that on the basis of these figures from 10 representative counties an investment of \$1,000 in farm land would pay an average of \$9.05 in taxes, while an investment of \$1,000 in lots would pay \$18.78. But there are great inequalities in valuations of lots also, properties worth less than \$250 being valued sometimes at three or four times their market value, while those whose actual value is \$5,000 and over are assessed at less than half their value in many instances. There are like differences in the valuations of other property. Some of the anomalies of the county returns are given as follows: "Rawlins County is absolutely devoid of silver plate or jewelry. Stevens County returns, under the head of moneys, but \$20. Seward County has no bonds of any sort, no stocks, no national bank shares, no moneys, no credits, but has a piano for every \$10,000 of its taxable personal property. Cattle compose two thirds of its taxable property. Haskell County has the smallest amount of taxable personal property. It is valued for taxable purposes at \$7,548. There are three gold watches in the county, valued at \$5 each, and five silver watches, valued at \$8 each. There is not a piano or musical instrument in the county. There are 20 pleasure carriages or vehicles, 35 wagons, and 82 farm implements."

In regard to assessment of industries the examples below are given: "In 15 reports from coal-mine operators, both the capital invested and the assessed valuation is given, the amount of capital invested being \$1,908,089 and the amount of assessed valuation is \$251,145, or, in other words, this industry pays taxes on 13.1 per cent. of its capital invested, a basis of assessment 86.9 per cent. less than the requirements of the law.

"In four reports from packing houses, the amount of capital is \$9,667,202, and the amount of assessed valuation is \$581,075, or, in other words, this industry pays taxes on 6 per cent. of its capital invested—a basis of 94 per cent. less than that contemplated by law."

Military.—The Governor was authorized to use his own judgment in organizing the State's quota of troops for the war. He decided not to send the militia as organized, a measure that caused much dissatisfaction. The captains of companies were directed to send all military equipments belonging to the Federal Government to the office of the Adjutant-General for the use of the volunteers, and recruiting offices were opened in the larger cities and towns. The number of volunteers sent was about 4,750. It was stated, Aug. 30, that 17 of these had died, all of disease. All the regiments but one had been in service about four months. About 600 of the volunteers are said to have been school-teachers.

Public Lands.—The Labor Commissioner finds that there are 2,485,319 acres of unoccupied land for sale or subject to homestead in Kansas. Of this 1,044,503 acres are Government land, and 1,221,558 acres are of Pacific Railroad land grants. There are 193,025 acres of school lands, and 26,235 acres of grants to the Atchison, Topeka and Santa Fé still untaken.

Education.—The biennial report of the Superintendent gives the following data: There are 9,100 organized districts in the State. This is 49 fewer than last year. Several of the western districts have been consolidated by act of the Legislature. The number of districts maintaining schools is 8,875. The total number of pupils actually enrolled in the State the past year was 370,240; last year the number was 367,690. The average daily attendance this year has been 256,934; last year it was 254,002. The number of teachers employed this year is 12,513; last year, 11,616. The report shows a slight decrease in the salaries. This year male teachers average \$39.03 a month, against \$39.26 in 1897. The average monthly salary of female teachers the past year was \$32.01; last year it was \$34.29. In 1898 110 school buildings and rooms were built. The total expenditures for school purposes during the year amounted to \$4,542,445; last year the amount was \$4,407,446.

The State Normal School at Emporia graduated in June the largest class in its history. Four completed the post-graduate course for the degree of bachelor of pedagogy, 24 the Latin course, 8 the English course, 74 the elementary, and 16 the academic course. The Normal School at Salina graduated 17 in August.

The Nickerson Normal College opened in August with an attendance of 74, which had increased to 114 when the building was dedicated Oct. 1.

The State University held its twenty-sixth annual commencement June 8, with 190 graduates in all departments. The number of students by the latest catalogue was 1,062, and of instructors 57. Of the students there were in the school of law 172, in the school of fine arts 162, in the school of pharmacy 61, and in the school of engineering 95. While the enrollment of students has increased 150 per cent. in eight years, the annual appropriations have increased 15 per cent. The boiler room of the university engine house was struck by lightning March 22, and the result was the destruction of the engine house and electrical engineering machine shops. The loss was about \$28,000, and there was no insurance. Mr. G. A. Fowler gave \$18,000 for a new building, and various citizens made up a loan of \$30,000 for its equipment.

Baker University, at Baldwin, the first college founded in Kansas, celebrated its fortieth anniversary May 30.

Garfield University, at Wichita, was sold for \$50,000 in March to J. M. Davis, of St. Louis, who gave it to the Society of Friends, and it was opened in September as the "Friends' University," with about 12 instructors.

At the commencement of Bethany College, at Lindsborg, in May, a thanksgiving service was held, commemorating the paying off of the mortgage on May 7, when the subscription committee paid the Massachusetts Mutual Life Insurance Company \$20,000, and thereby availed themselves of a voluntary reduction of a similar amount by the



WILLIAM E. STANLEY,
GOVERNOR OF KANSAS.

company. There were 10 college graduates, 2 normal, 1 music, and 12 commercial.

A class of 18 took the degree of M. D. at the Kansas Medical College in March.

The State Supreme Court in June granted a peremptory writ of mandamus to compel the city of Topeka to use the series of text-books adopted by the State School Text-book Commission. It was the city's contention that the law did not apply in cities of the first class where there were existing contracts for a number of years.

Charities and Corrections.—A sensation was caused in October by the resignation of the superintendent of the State Asylum for the Insane, at Topeka, Dr. C. H. Wetmore, which was accompanied by serious charges against physicians and others holding important places at the institution; incompetency, neglect of patients and brutality toward them, drunkenness, and immoral conduct were among the accusations. The Governor accepted the resignation without investigation. The Board of Charities elected Dr. L. D. McKinley to succeed Dr. Wetmore.

Similar charges were made against the asylum at Ossawatimie by a former attendant, but nothing appears to have come of them. For current expenses the Topeka Asylum received \$118,790 for the year; the appropriations to the Ossawatimie institution for 1898-'99 was \$313,528.

The total cost of maintaining a child at the Soldiers' Orphans' Home is \$118. The average number in attendance is 185. The institution is for homeless, neglected, or abused children, and was called the Soldiers' Orphans' Home because there is a provision giving preference to such children. All but 4 are orphans of soldiers.

The second biennial report of the State Industrial Reformatory shows that there have been 277 inmates in the reformatory since its foundation. Of this number 186 were in prison June 30, 1898.

There was an average of 911 prisoners in the State Penitentiary during the year ending June 30. The average cost of maintenance was 44.8 cents a day. The United States and the Oklahoma prisoners are not included in the number given.

A mutiny broke out among the convicts in the United States Penitentiary at Fort Leavenworth, June 1, and 15 escaped. Two hours later James Musgrove, an Indian Territory desperado, who was the leader, was shot down, struck by 8 bullets.

Railroads.—The assessment of railroads for 1898 amounted to \$60,305,466. In 1897 it was \$59,380,194, and in 1896 it was \$59,279,346. There was \$106,000 worth of track taken up during 1897.

The Government lien on the Union Pacific Railroad in Kansas was sold in February to the reorganization committee for \$6,303,000.

Banks.—The fourth annual report of the Bank Commissioner gives a record of his department for two years. During that time 65 State banks, with an aggregate capital of \$784,600, have been organized. Of this number, 23 were reorganized private banks, 8 reorganized national banks, 4 reorganized State banks, and 30 were new organizations. During the same period, 48 State and 15 private banks, with a capital of \$1,049,150, went into voluntary liquidation, and 13 State and 2 private banks, with a capital of \$409,500, were closed by the department.

The annual statement of receipts and disbursements for 1897 shows that the banks charged off the following items of loss: Bad paper, loans, \$452,716.21; depreciation in value of real estate, \$168,518.12; depreciation in value of furniture and fixtures, \$41,580.94; total, \$662,815.27.

A comparison is made of the condition of the banks at the present time with 1892, the year in which the State is supposed to have been more pros-

perous than at any time since. It shows that in 1892 the resources and liabilities of Kansas banks amounted to \$34,637,146.19; while in 1898 the amount was \$31,010,377.73. The report continues: "While there has been a nominal reduction of capital and surplus of over \$4,500,000, the actual capital is greater to-day than in 1892, for the reason that the present capital is unimpaired and is represented by assets worth par, whereas in 1892 none of the losses resulting from the 'boom period' had been charged off, and the impairment of capital at that time probably amounted to 50 per cent. Individual deposits increased nearly \$4,000,000, while demand and time deposits decreased \$1,660,000. The item of borrowed money, bills payable, and discounts has been practically wiped out, having been reduced from \$1,400,000 to less than \$300,000."

The report on the national banks of the State, Dec. 15, 1897, shows the total resources to have been \$35,518,104.62. The individual deposits were \$19,690,553.25.

Insurance.—The report of the Kansas Mutual Life Company for 1897 shows that the increase of new insurance for 1897 over 1896 was \$660,000, the new business the last six months being 83 per cent. more than for the corresponding six months of 1896.

Companies that were refused licenses by the Insurance Commissioner (see "Annual Cyclopædia" for 1897, page 433) continued to do business in the State, and suits were brought against them by the Attorney-General. In January the Supreme Court decided for the State against the Mutual Life of New York, whose license had been revoked; but the Federal court held that the law of 1889, which declared that an insurance superintendent had no right to revoke any company's license unless it was insolvent, was operative, and therefore issued an order restraining the State from interfering with the company in the transaction of its business.

Suits against the Commissioner by the Metropolitan Life, one for a restraining order to prevent him from interfering with their business, and the other for \$60,000 damages, were withdrawn, a compromise having apparently been made. There was also a suit by the Connecticut Fire Insurance Company to enjoin the Commissioner from preventing its agents from operating in the State. In March the Commissioner served notice on 15 life insurance companies that an association formed by them for the purpose of preventing any rebate on premiums was in violation of the antitrust law of the State.

The Commissioner required that the salaries of all officers of companies be made known to the department, a demand which was resisted by some of the companies.

Products.—The quantities and values of the principal farm products in 1898 were given as follow in December, by the secretary of the Board of Agriculture: Wheat, 60,790,661 bushels, \$32,937,042; corn, 126,999,132 bushels, \$30,298,094; oats, 21,702,537 bushels, \$4,268,861; rye, 2,153,050 bushels, \$761,970; barley, 2,771,514 bushels, \$620,872; buckwheat, 7,217 bushels, \$4,330; Irish and sweet potatoes, 6,383,680 bushels, \$2,768,017; castor beans, 68,679 bushels, \$55,798; flax, 1,598,539 bushels, \$1,278,831; broom corn, 13,411,600 pounds, \$299,638; millet and Hungarian, 735,288 tons, \$2,074,820; sorghum for syrup, 1,550,822 gallons, \$501,754; sorghums for grain and forage, \$7,795,753; tame and prairie hay, 2,096,075 tons, \$6,612,141; wool, dairy, and poultry products, \$10,293,491; animals slaughtered and sold for slaughter, \$49,123,517; horticultural and garden products and wine, \$2,010,690. The live stock was rated as follows: 862,051 horses and mules, \$28,868,798; 605,925 milch cows, \$19,389,600; 1,998,140 other cattle, \$51,951,640; 207,482 sheep, \$570,-

575; 2,766,071 swine, \$12,447,320; total value of live stock, \$113,237,933. From tables showing the values of farm products in the State for the twenty years ending with 1897, it appears that the total amounts to \$2,481,061,751.

The first station established by the Government for the production of sorghum sugar was at Fort Scott. After the bounty on sugar was discontinued the industry declined, and in February the last piece of sugar machinery was sold to be sent to Nebraska. It is said that the total amount spent on the experiment was nearly \$250,000.

The value of coal for 1897 is given as \$3,931,707; for the whole period of production since the mining of it began, \$51,335,808. Zinc closely approaches it with a value for 1897 of \$2,795,683.28. The grand total of zinc mined since its production began is estimated at \$35,000,000. The other minerals rank in point of value of output for 1897 as follow: Lead ore, \$914,963.89; salt, \$417,629.94; clay goods, \$265,320.27; gypsum, \$252,811; limestone, \$173,000; natural gas, \$155,500; lime, \$65,000; hydraulic cement, \$64,000; petroleum, \$54,000; sand, \$45,000; sandstone, \$23,180.

Labor.—From the Labor Commissioner's summary of statistics are taken the averages given below: In 9 occupations, and in 175 instances, the hour is the basis of the wage rate, the average being 20.5 cents an hour, ranging from the minimum average of 13.5 cents for the 12 barbers reporting to the maximum average of 23.9 cents for the 10 railroad blacksmiths reporting. With 807 reporting, comparisons with 1896, the wage rate is reported increased in 211, decreased in 128.

In a separate summary of reports on labor of women, it appears that in 5 occupations and in 71 instances, the week is the basis of the wage rate, the average wage being \$5.01 a week, ranging from the minimum average of \$2.09 for those engaged in domestic service to the maximum average of \$6.89 for those engaged in occupations classified as miscellaneous, in which it is found that in the occupations of milliners, tailoresses, and salt workers the highest wage rate is paid.

Mob Violence.—At Great Bend, June 12, a man who had been brought from Hutchinson for a preliminary examination on a charge of murder was taken from the sheriff and hanged in the public square. His crime was the murder of a girl of fifteen because she refused to marry him.

Destructive Storm.—A tornado almost entirely destroyed Cunningham, a small town 60 miles west of Wichita, May 18. Damage was reported also at Peabody, Newton, Halstead, and Lawrence.

State Laws.—The Governor made a proclamation, June 17, suspending the operation of the metropolitan police law, to take effect July 1, and revoking the appointments of the boards of police commissioners in all cities of the first class in the State.

The United States Supreme Court, March 14, affirmed the constitutionality and validity of the State laws of Kansas prohibiting transportation into the State of cattle affected with Texas fever, and providing for a civil action for damages in case of infraction of the law. These laws were attacked on the ground that they were repugnant to the Constitution of the United States, and also on the ground that domestic cattle were sufficiently protected by Federal laws and by regulations of the Agricultural Department.

In the district court at Garnett, June 21, a decision was rendered upholding the validity of the valued policy law, which provides for full payment of policy where loss on real estate is total. It was also held that section three of the same act, which provides for taxation of attorneys' fees against the

company, is unconstitutional in that it discriminates against a class of litigants.

The Court of Appeals decided in August that the "scrip law," prohibiting the issuing of scrip to miners in payment of wages, is valid. It was attacked on the ground that it interfered with the right of private contract.

The same court decided against the city poll-tax law at Fort Scott.

Political.—Municipal elections were held April 5 in first- and second-class cities. A light vote was polled in Topeka, where the Republicans elected all their candidates, except 2 councilmen, who were defeated by their Democratic opponents; and there was a like result in Wichita. In the following cities the Republican tickets were successful: Yates Center, Eldorado, Girard, Hutchinson, McPherson, Lawrence, Independence, Garnett, Fort Scott, Hiawatha, and Abilene. In Leavenworth the Republicans elected 4 out of 6 councilmen. The women's vote was light in Leavenworth. In the village of Uniontown the women put up a full ticket against the men, and were beaten 3 to 1. At Great Bend and several other towns the issue was license or prohibition, and the advocates of license elected their candidates for peace officers.

State officers were to be chosen in November, and four tickets were in the field: Republican, Fusion (silver), Prohibition, and Socialist-Labor.

The Republican convention was held at Hutchinson, June 8. The resolutions approved the national administration "in peace and in war," demanded the immediate strengthening of the navy, the building of the Nicaragua Canal, and the annexation of Hawaii. They favored a liberal construction of the pension laws and the preference of veterans in civil appointments; called upon the Governor and Secretary of State to afford facilities to the soldiers in the volunteer service for voting in the November election; called attention of the coal-miners to the fact that the Populists had not kept the pledges made in their platform of 1896 that convict-mined coal should not be offered in the open market, and that the last Republican administration had kept similar promises which had been made in the platform on which it was nominated; and said further: "In contrast with faithful performance of promises by the Republican party in the nation, we place the broken pledges of the Populist party in the State. Intrusted with power and given absolute control of every branch of the government, they repudiated the pledges by which they gained success at the polls. Their record of inconsistency is rounded out with incompetency and supplemented by corruption, proved by their own partisans in an investigation they made themselves."

Following were the candidates: For Governor, W. E. Stanley; Lieutenant Governor, Harry E. Richter; Secretary of State, George A. Clark; Treasurer, Frank Grimes; Auditor, George E. Cole; Attorney-General, A. A. Godard; State Superintendent, Frank Nelson; Associate Justice, William R. Smith; Congressman at Large, W. J. Bailey.

The Populist convention was called for June 15 at Topeka, and at the same time the Democratic convention met at Atchison. A conference committee from each convention was appointed to arrange the division of offices in case of fusion. The Populist platform commended the State administration and the acts of the Legislature, also the course of the Representatives in Congress who opposed the issuing of interest-bearing bonds and the "encroachments of corporate power upon the rights of the people." Other demands and recommendations were: A constitutional convention for the purpose of introducing into the State constitution the principle of initiative and referendum; public

ownership of public utilities; an open public market under control of the State for the purpose of preventing combinations of buyers and commission men from fixing and regulating prices; insurance protection furnished at cost by the State; the enactment of a freight-rate law giving to a court of railway commissioners, to be elected by the people, the power to fix rates and classifications of railways, and the further power to compel the railways to make full reports with reference to their business; a general text-book law; a law making county clerks' offices free public employment agencies; complete revision of mining laws; a law taxing as costs in actions for the recovery of wages a reasonable attorney's fee for the collection of the same, and providing that in case of an employer's assignment or insolvency, wages shall be a prior lien to all attachments and mortgages; a law confining the output of the penitentiary mine to the needs of the State institutions; and immediate suspension of the metropolitan police law—also its repeal by the next Legislature. On national issues the platform demanded free coinage, and the issue of legal tender notes good for all debts in preference to the issue of interest-bearing bonds; "opposed the issuance of all bonds and condemned the Republican party for its action in fastening upon the people a large bonded debt ostensibly for war revenue, but in reality for the perpetuation of the national banking system"; favored increase of pay to the volunteer soldiers, and service pensions for veterans of the civil war; denounced the Republicans in Congress for "voting against an income tax and the one fourth of 1 per cent. on railroad corporations which are being enriched by Government contracts, and also their refusal to tax Wall Street transactions."

The entire list of State officers was renominated. All are Populists except A. M. Harvey, Lieutenant Governor, who is a Democrat.

In the Democratic convention at Atchison a minority report of the resolutions committee demanding a straight Democratic ticket was voted down, and the candidates presented by the Populist convention were approved. The resolutions demanded free coinage, and favored "an amendment to the constitution of the United States if the same be necessary, such as will authorize Congress to levy direct taxes upon incomes, corporations, estates, and all forms of aggregated wealth." They also favored vigorous prosecution of the war, but not territorial aggrandizement or the establishment of a colonial policy; favored the resubmission of the prohibition amendment, and denounced the metropolitan police law; commended the State administration, and especially the stock-yards legislation and its vigorous enforcement, and said also: "We commend the course of Senator W. A. Harris in preventing the loss of millions of dollars to the people through the machinations of the Wall Street operators interested in the purchase of the Union Pacific Railroad; and we commend him and those Kansas congressmen who voted against the issuance of further interest-bearing bonds at this time."

The Democrats who were opposed to fusion with Populists decided to support the Republican ticket rather than make nominations of their own.

The Prohibitionists met in State convention at Emporia, June 8. The platform declared for prohibition and woman suffrage, and approved the action of the National Government in the war with Spain. One of the statements was: "We regard civil government as an ordinance of God, and recognize the Lord Jesus Christ as King of Kansas, and therefore believe that the administration of civil affairs should be in harmony with the law and in his spirit."

The ticket follows: For Governor, William A. Peffer; Lieutenant Governor, R. T. Black; Secretary of State, J. B. Garton; Treasurer, John Biddle; Superintendent of Public Instruction, Mrs. E. N. Buckner; Auditor, H. Hurley; Congressman at Large, M. Williams. For Attorney-General and Associate Justice no nominations were made, the intention being to support the Republican nominees.

The Socialists held a convention at Fort Scott, June 28. The platform demanded better pay for soldiers, the issuing of more paper money, the breaking of the land monopoly, and other reforms. A full State ticket was chosen, headed by Caleb Lipscomb for Governor.

The Republicans were successful at the polls in November. The vote for Governor stood: Stanley, Republican, 149,292; Leedy, Populist, 134,158; Peffer, Prohibition, 4,092; Lipscomb, Socialist Labor, 635.

The State Senate of 1899 will be composed of 26 Populists, 12 Republicans, and 2 Democrats; the House, of 93 Republicans, 19 Fusionists, 10 Populists, 2 Democrats, and 1 Independent.

Legislative Sessions.—A special session of the Legislature was called to meet Dec. 21. The reason was given in the following preamble:

"Whereas, assurances have reached me to the effect that if the Legislature shall be convened suitable legislation for the regulation of railroad charges can be enacted and, deeming such matters of sufficient importance to justify the convening of the Legislature in special session," etc.

The Republican Senators and Representatives signed a protest against the calling of the session, as violating "all the usages and precedents of the State and country, by interposing this Legislature in the last moments of its existence between the people and the Legislature they have just elected, and at the very moment it is about to convene to legislate as it has been commissioned to do." This protest was ruled out of order in the Senate.

The Governor's message gave the following in explanation of his action in calling the Legislature together to enact a law like the one passed at the regular session, which he had vetoed (see "Annual Cyclopædia" for 1897, page 435):

"Although the present executive and a majority of each House of the present Legislature were elected under a pledge to the people to enact a maximum-rate law, when the time arrived for fulfilling that pledge the menace of a judicial decision, by the highest tribunal in the land, which would make legislative regulation of railroad charges practically impossible, caused many to doubt the wisdom of attempting the promised legislation; and such difference of opinion prevailed that the executive felt called upon to withhold his approval from the compromise measure finally passed. There was then pending undetermined in the Supreme Court of the United States a case which involved the question whether, as to railroad legislation, the legislatures of theoretically sovereign States should be reduced to the level of city councils or school district boards, upon the reasonableness, as well as the authority, of whose acts courts may sit in judgment. The decision of that case, announced soon after the adjournment of the Legislature, fully justified the fears and anticipations of those who deemed it futile to pass a maximum-rate bill; for it rendered such an enactment a mere proposal of legislation, not a law, which must be submitted to the Federal court for approval or rejection.

"At the same time the court declined, though urged, to lay down any definite rule by which, in advance of its judgment in each particular case, a Legislature might be able to say whether suggested rates would be held reasonable or not.

"I, therefore, recommend that the Legislature confer upon the Board of Railroad Commissioners full judicial power to try, hear, and determine all questions as to the reasonableness and unreasonableness of every charge made by a railroad company for services rendered wholly within this State in the transportation of property; that they be authorized to try, determine, and enter judgment declaring what are at the time of rendering their decision reasonable charges for the transportation of property between different points over each and all of the railroad lines in this State; and also what are reasonable charges for switching, demurrage, and all other charges imposed by them from the time of the reception of each and every kind and class of freight to its delivery to the consignee; and that they be authorized either at stated times or on the complaint of any person, corporation, or municipality to hear, try, and determine any complaint made against the reasonableness of any charges then being collected for any service, and that they also be given power in like manner to establish full and complete classifications of freight to be used in the determination of all questions affected thereby; that the Legislature declare that the rates and charges so determined by them to be reasonable shall be the rate to be thereafter charged by the railroad companies, and the only rate which they shall be authorized to demand or receive until such time as the board upon a like hearing shall determine that the existing rate is unreasonable, and that another and different rate is the reasonable and proper one for the service."

Other recommendations in the message were the passing of a law to limit the amount of mortgage indebtedness that may be placed upon a railroad, and an appropriation to reimburse all corporations, counties, and individuals that contributed to the fund for making a State exhibit at the Omaha Exposition. The session was not finished at the close of the year.

KENTUCKY, a Southern State, admitted to the Union June 1, 1792; area, 44,400 square miles. The population, according to each decennial census since admission, was 220,955 in 1800; 406,511 in 1810; 564,135 in 1820; 687,917 in 1830; 779,828 in 1840; 982,405 in 1850; 1,155,684 in 1860; 1,321,011 in 1870; 1,648,690 in 1880; and 1,858,635 in 1890. Capital, Frankfort.

Government.—The following were the State officers during the year: Governor, William O. Bradley; Lieutenant Governor, W. J. Worthington; Secretary of State, Charles Finley; Treasurer, G. W. Long; Auditor, Samuel H. Stone; Superintendent of Public Instruction, W. J. Davidson; Attorney-General, W. S. Taylor; Adjutant General, D. R. Collier; Commissioner of Agriculture, Lucas Moore—all Republicans; Librarian, Mrs. E. G. Cromwell, succeeded in June by Miss Pauline Hardin; Mine Inspector, George W. Stone; Election Commissioners, William T. Ellis, W. S. Pryor, Charles B. Poyntz; Prison Commissioners, Henry George and Messrs. Fennell and Richardson; State Inspector, C. W. Lester; Chief Justice of the Court of Appeals, Joseph H. Lewis, Democrat; Associate Justices, James A. Hazelrigg, Thomas H. Paynter, and J. D. White, Democrats, and B. L. D. Guffy, George Du Relle, and A. Rollins Burnam, Republicans; Clerk, Samuel J. Shackelford, Democrat.

Finances.—The following statement, showing the condition of the State treasury May 31, was given out by the Auditor, June 4:

Sinking fund—balance April 30, \$565,751.37; receipts in May, \$6,298.38; total, \$572,049.75; expenditures, \$20,265.53.

School fund—balance deficit April 30, \$10,859.92; receipts in May, \$21,091.33; on hand, \$10,231.41; expenditures, \$554.34.

General expenditure fund—balance deficit April 30, \$427,201.33; receipts in May, \$79,323.03; total, \$347,878.30; expenditures, \$145,187.73; balance in treasury May 31, 1893, \$68,395.21.

Education.—A new building was dedicated at the State College at Lexington, Jan. 21. It is for the department of natural science. A bill was before the Legislature in February to change the name of the institution to Kentucky University, but it was opposed by members of the Christian Church, which has a denominational college at Lexington of that name, and a substitute bill was therefore passed, changing the name to State University.

Prisons.—There were 1,295 convicts at the State Penitentiary at Frankfort, March 17. A new method of discipline was adopted this year. Three kinds of clothing were provided for prisoners—a plaid black-and-white for newcomers, to be worn while they are on probation; then the well-behaved are put into plain gray suits, and the incorrigible into the usual striped garments. The Sinking Fund Commissioners, who had control of the prisons under the old law, put the woman's department in charge of women as guards in February. The prisons passed under control of the new Board of Prison Commissioners, Aug. 1.

Military.—The organized militia force of the State was reported in March as 1,371 men, and the number unorganized but available for military duty as 361,137. The State's quota for the war was 4,000 men.

Railroads.—The State has a total railway mileage of 3,042, with an increase of 31 miles in 1897. One fourth of the counties are without railway facilities.

Insurance.—In September the Franklin County grand jury returned a joint indictment against 74 foreign fire insurance companies doing business in the State. The indictment charged conspiracy to control the price of fire insurance and to prevent competition. It included all companies in the insurance combination known as the Kentucky and Tennessee Board of Insurance Underwriters.

Under a statute which provides that a man is legally dead after he has been missing for seven years, during which time nothing has been heard from him, suit was brought against insurance companies by the heirs of I. W. Tate (who was Treasurer of the State and ran away eleven years ago, leaving a deficit of about \$80,000) to recover the amount of insurance upon his life. The companies defended the case until January, when the attorneys for the Connecticut Mutual Life appeared in court and paid over \$4,100 on the \$5,000 policy which Tate carried in their company, indicating that the companies had agreed to give up the suits.

Banks.—The Comptroller of the Currency gave out in October an abstract of reports of the condition of the 69 national banks in Kentucky, Sept. 20, exclusive of Louisville. It shows that the total resources were \$30,871,740, the loans and discounts amounting to \$16,810,063, and the reserve to \$4,457,651, of which the gold held was \$837,305. The deposits aggregated \$14,794,157 and the average reserve held was 31 per cent. The average reserve Feb. 18 was 36.71 per cent. The Comptroller in June declared a dividend of 5 per cent. in favor of the creditors of the First National Bank of Newport, which failed in 1897.

The banks have been settling accounts for back city taxes under the decision of the Court of Appeals which made them liable for city and county taxes, and gave them back taxes illegally paid to the State.

Products.—The mine-inspector's report, rendered in February, said: "The year was one of unusual disturbances, but the output of coal was greater

than in any year except 1893, and is only 18,488 tons less than in any year. The report yet to come in will materially reduce these figures. The greatest hindrance of the year was the prolonged strike in the Jellico district. It commenced about May 1 and continued with most of the mines until late in the fall. There were numerous other hindrances that seriously retarded operations in different sections and prevented a much larger output. Not estimating the few missing reports, the State's products in 1897 was 3,283,762 tons, 100,284 tons more than in 1896.

The war in the Philippines, and consequent dearth of Manila cordage, will, it is believed, restore prosperity to the hemp industry of Kentucky.

The figures of the collector of internal revenue for the year ending June 30 give the total amount of whisky in bond in the district as 85,220,735.3 gallons.

Centenary Celebration.—The city of Nicholasville and Jessamine County celebrated their hundredth anniversary Sept. 16 with a parade, addresses, a dinner, and a ball. Excursions from Cincinnati, Louisville, Lexington, and other cities brought great numbers of visitors, and the procession which paraded the streets in the forenoon was a mile long.

Water Ways.—Work on Tradewater river is completed, but not permanently, as obstructions formed from drifts need constant removal.

Appropriations remaining Feb. 1 for work on the rivers were: For completing Green river improvements, \$15,272.23; Kentucky river, \$208,387.87; Cumberland, above Nashville, \$124,030; below Nashville, \$23,400.55; Louisville and Portland Canal, \$70,116.41; falls of the Ohio at Louisville, \$269,828.45.

The Lottery Closed.—The Kentucky lottery was closed Jan. 1. Following is an account of the litigation that ended its existence: "During Gov. Blackburn's administration indictments were found against some of the officials and employees, and true bills were drawn up against 140 men connected with the company. When the case came up for trial the attorney for the defense exhibited pardons for every one of the defendants. The company carried the case before the Court of Appeals and gained the decision. Thrice the State tried to take away the company's charter and thrice the Commonwealth was defeated in the courts. In 1891, after the adoption of the new constitution, *quo warranto* proceedings were instituted against the lottery. Judge Toney decided in favor of the company, following a former Appellate Court decision, but the latter tribunal reversed itself and Judge Toney. The company then carried it before the Supreme Court, which recently handed down the final decision, giving the death blow to the Frankfort Lottery."

The Toll-gate Raids.—These continued during the earlier part of the year. In January the State offered of \$200 for the apprehension and conviction of each of the mob that raided the toll gates in Nelson County on the night of the 24th inst. Jan. 28 a mob visited the toll gate, near the Fair Grounds, on the Louisville turnpike, and blew up the toll-house with dynamite. Four guards were in charge of the gate, but at the raiders' orders they left the scene. Three gates were destroyed near Shelbyville, Feb. 4, where, it was said, excessive tolls were collected. There was an encounter near Perryville, in Boyle County, March 20, between raiders and two guards who were on duty at a gate between that town and Harrodsburg, and both guards were shot; one of them, it was believed, would be crippled for life. A dispatch of Aug. 12 said: "The third raid was made last night on the toll gate

about one mile from town on the Eminence and Mulberry turnpike, the raiders using dynamite with telling effect for the second time."

Other Lawlessness.—A lynching and white-cap raids took place early in the year at Mayfield, and a colored man was taken from jail by a mob in Russellville, June 25, and hanged.

Legislative Session.—The Legislature convened for its regular session Jan. 4, and adjourned March 15. J. C. W. Beckham was chosen Speaker of the House.

The Governor's message recommended the repeal of the law requiring separate railway coaches for negroes; the enactment of a law to place the control of the charitable and penal institutions on a nonpartisan basis; amendment of the ballot law to prevent voters from losing their votes through mistakes; the abolition of useless offices; a law to make counties responsible for damage by raiders; the establishment of a higher standard for admission to the bar; and a tax of one half a cent for the better equipment of the State militia.

A resolution calling upon United States Senator Lindsay to resign, on the ground that he no longer represented his party, since he refused to support the Chicago platform, passed the House by a vote of 55 to 35, and the Senate by 25 to 10. Five Democrats in the House and one in the Senate voted against the resolution. Mr. Lindsay made a speech in the United States Senate in regard to this resolution, in which he said:

"The substance of the complaint is that I am opposed to the free and unlimited coinage of silver at the ratio of 16 to 1, and that I opposed the election of the nominees of the late Chicago convention, and by so doing betrayed the trust reposed in me by my constituency. I shall not discuss the presidential campaign of 1896. It is not necessary to do so to meet the charges that I betrayed the trust of my constituents by opposing the election of the Chicago nominees. My constituency is made up of the people of Kentucky, and that people voted against these nominees, and 12 out of 13 of the electoral votes of Kentucky were registered against them."

The most important act of the session, probably, was the election bill introduced by Senator Goebel, for creating a State election commission or board, to be elected by the existing Legislature and to hold office for four years; this board is to appoint annually three commissioners in each county, who in turn shall appoint all the elective and registration officers for their respective counties. If a vacancy occur in the State board when the Legislature is not in session, the other members have power to fill the vacancy. The State board can remove a member of a county board at any time without showing cause. The State board may be all of one party; but the county board is required to select the officers of elections from the two leading parties; the county board has the power to count the votes and issue election certificates. These certificates will be sent to the State board, whose duty it shall be, "when returns are all in, or on the fourth Monday after the election, whether they are in or not, to make out in the office of the Secretary of State, from the returns made, duplicate certificates in writing over their signatures of the election of those having the highest number of votes, one certificate to be retained in the office and the other sent by mail to the person elected." In the event of a tie in an election, the result is to be determined by lot, according to any plan that the State board may select. The bill makes election contests impossible, as there is no going behind the returns of county boards. After a long struggle the bill passed the House by a vote of 57 to 42 and also passed the

Senate. It was vetoed by the Governor, and was passed over the veto. The Legislature elected the board under the provisions of the bill; but the Auditor, under advice of the Attorney-General, refused to recognize it by honoring its bill for office supplies. The law was attacked before the Court of Appeals in November as being unconstitutional, since it made material changes in an existing law without re-enacting and publishing the law as amended; as contrary to the principles of a republican government; as destroying local self-government; as concentrating power so that one man might have full control; and as corrupt and dishonest in purpose. The court decided that the law does not conflict with the State constitution, by a vote of the four Democratic against the three Republican justices.

Another important measure was one providing for the taxation of franchises and intangible property of corporations, not including railroads, by cities of the first and second classes; the value is to be estimated by taking that of the tangible property from the capital stock. Shares of stock held by individual owners are exempt. All taxes against railroads are to be assessed by the State Railroad Commissioners. Many corporations resisted the enforcement of the law taxing their intangible stock, and indictments were found against 120 of the companies so resisting.

An act that was passed over the veto of the Governor provides that any foreign corporation engaged in the business of collecting and furnishing news to periodicals must, as a condition for operating in Kentucky, furnish its news to any or all newspapers in the State without discrimination in charges.

It was provided by another act that the prisons, which have been under control of the Sinking Fund Commissioners, shall be placed in charge of a board of three Prison Commissioners to be chosen by the Legislature, and to receive \$2,000 a year and their traveling expenses. The validity of this law was disputed before the courts.

A bill was passed, but was vetoed, giving the Railroad Commissioners power to fix the freight rates of railroad companies in the State.

A law requiring the Louisville authorities to take the school census annually, instead of once in five years as heretofore, was declared unconstitutional by the Court of Common Pleas.

The law to protect rights of owners of marked bottles and other receptacles for beverages was so amended as to make it apply to those used for medicines, perfumery, and other compounds.

A law regarding testimony provides that a husband acting as agent for his wife, or a wife for her husband, may testify concerning such agency. A person may testify for himself against another who is before the court only by constructive service of the summons; prisoners in the Penitentiary are competent witnesses, and may be testified against; and the provision that permits one party to compel the adverse party to testify as any other witness was repealed.

Cities of the second class may take or buy turnpikes controlled by private companies.

The State University may establish a course in mining engineering; the dean of the school is to act as inspector of mines, and to analyze mineral products that may be sent to him for the purpose.

Other enactments were:

Providing a penalty for dispensing intoxicating beverages in local-option districts.

Repealing the provision relative to the penalty when judgment is confessed for unlawful use of deadly weapons.

Allowing outstanding bonds of school districts to be refunded.

Providing that in cases of contests over election of Governor or Lieutenant Governor, a special board shall be drawn by lot from the Legislature to examine.

Imposing a penalty for manufacturing or selling food or drink, excepting liquors, for men, horses, or cattle, which is adulterated or falsely marked. The director of the agricultural experiment station is to make the analyses and enforce the law.

Providing that at least one woman physician shall be employed in insane hospitals that have women among the patients.

Amending the law regarding the practice of pharmacy and the sale of poisons.

Forbidding employers of miners to coerce them to buy at any store, and regulating monthly payments of wages.

Amending the law in regard to trust companies so as to require a capital stock of \$25,000 instead of \$15,000 in counties of less than 25,000 inhabitants.

Allowing children of slave marriages to inherit their parents' property.

Prohibiting the practice of medicine without a certificate from the State Board of Health.

Laws in Court.—The constitutionality of the law requiring separate coaches on railroad trains for the use of negroes was upheld by a decision of the Court of Appeals in October.

The general laws regulating government of cities according to their respective classes were declared unconstitutional so far as they authorize circuit courts to transfer a town or city from one class to another, that power belonging, according to the constitution, to the Legislature alone.

Political.—Congressional elections were held in November, the result giving 9 of the 11 districts to the Democrats, and the other 2 to the Republicans.

In the Third District J. P. Hobson, Democrat, was elected Justice of the Court of Appeals over W. W. Jones, Republican.

The total election figures for the State were given as follows: Democratic vote, 125,463; Republican, 116,329; Prohibition, 6,367.

KITCHENER, Sir HORATIO HERBERT, Baron Kitchener of Khartoum and Aspell, born in 1851. His father was the late Lieut.-Col. Henry Horatio Kitchener (Thirteenth Light Dragoons), of Ossington, Leicestershire, and his mother, Anne Frances, daughter of the Rev. Dr. Chevallier, of Aspell Hall, Suffolk. After receiving his education at the Royal Military Academy, Woolwich, he entered the army in 1871 as a lieutenant in the Royal Engineers. Three years later he accompanied Capt. Conder and assisted him in the survey of western Palestine. After a year's work he returned to England, and for three years (1875-'78) was engaged upon the Palestine exploration map. In 1878 he went back to Palestine and carried out the survey of Galilee. Having finished this, he was sent to Cyprus to organize the new land courts, and after a short absence (1879-'80), during which he resided at Erzeroum as vice-consul of Anatolia, he returned to the island and surveyed it. After eight years of civil employment he resumed his military career by volunteering for service in the Egyptian army, now in process of formation by Sir Evelyn Wood, and was appointed one of the two majors of cavalry. His first important piece of work in Egypt was performed at Debbeh, where as quartermaster general and deputy assistant adjutant he did his utmost to keep open communications with Gordon at Khartoum for the expedition which vainly tried to rescue him in the autumn of 1884. In the following year he acted as commissioner for the delimitation of Zanzibar, which had just been placed under the British protectorate.

Returning to Egypt in 1886, having now the rank of lieutenant colonel, he was made pasha in the Egyptian army and created C. M. G. For the next three years he was in active military service as governor of the Red Sea littoral and commandant of Suakim, then menaced by the Mahdi's lieutenant, Osman Digna. At the battle of Handoub (Dec. 21, 1888) he was severely wounded, and he greatly distinguished himself both in this action and in that at Gemaizeh soon afterward, where he commanded the Soudanese troops he had done so much to train. Besides receiving the Egyptian order of the Osmanieh, he was appointed an A. D. C. to the Queen. On Aug. 3, 1889, he took part in the action under Grenfell at Toski, and, having been specially mentioned in dispatches, was created C. B. When the operations in the eastern Soudan were concluded he returned to Egypt proper, where for four years he acted as adjutant general and second in command of the Egyptian army, being also inspector general of police. He attained the rank of colonel in the English army in April, 1888, and



SIR HORATIO HERBERT KITCHENER.

received the local rank of brigadier general, when, in 1892, he was appointed to the post of sirdar, or commander of the Egyptian troops. In 1894 he was created K. C. M. G. Two years later he commanded the expedition by which the province of Dongola was recovered for the Khedive of Egypt. On March 21 he left Cairo for Assouan, and during the spring he directed the construction of the railway and telegraph lines to Akasheh. When preparations were completed an advance was made, and at dawn on June 7, 1896, the dervishes were surprised and routed at Ferkeh. After a delay of three months the advance was resumed, and, the dervishes having been defeated in an artillery action on Sept. 19 at Haflr, Dongola was entered. For these services Kitchener was specially promoted major general, was created K. C. B., and received the grand cordon of the Osmanieh. A further period of preparation and organization having passed, he completed his work in 1898 by the defeat of the dervishes near Omdurman (Sept. 2) and the capture of Khartoum.

KOREA, an independent empire in continental Asia, between Russia and China; area, 80,000 square miles. It is separated from Russia by the Tumen river, and from China and Manchuria by the Long White mountains on the north and the Yalu river on the west. The population is estimated at 15,-

000,000, almost wholly agricultural. The peddlers and butchers form large and powerful societies, and all the special industries are organized into guilds. Above the great mass of the people are the *yang ban* (civil and military class), who, for the most part, live in idleness and successfully evade the payment of taxes and tolls. Beneath the middle mass are the seven degraded classes, which, since A. D. 1450, have suffered many disabilities, but are now improving in social status. They are the lower servants or runners of the magistrates, buffoons or traveling singers, butchers, basket makers, sorceresses, dancing girls, and handlers of leather. The Buddhist priests, hitherto (from A. D. 1392) forbidden entrance within cities, are now allowed this privilege, and the former serfs or slaves are practically free.

Government.—The direct royal line came to an end in 1864, but the present King was nominated, and during his minority the country was governed by the late Tai-Wen-Kun for nearly twenty years. Succession to the throne is hereditary, and the edict of the sovereign is law. Not until 1898 was Korea a free country. From the dawn of history she has been claimed as a vassal by China, and for nearly fifteen centuries has been tributary to Japan. By the Japanese treaty of 1876, and the convention between Japan and China at Shimonoseki in 1895, Korea was declared absolutely free. On Oct. 14, 1897, the King of Korea assumed the title of Emperor and changed the name of the country to Dai-Han (in contradistinction to the San-Han, or three ancient kingdoms of the peninsula). He is assisted to govern by a Council of State, consisting of a Chancellor, 5 Councilors, 6 Ministers, and a chief secretary. Nine ministers, those of the Royal Household, Finance, Home Affairs, Foreign Affairs, War, Justice, Agriculture, and Education, with a Premier, assist the Emperor in ruling the 14 provinces, over each of which there is a governor. In each of the 360 districts there is a magistrate. The army consists of about 5,000 men, but there is no navy. Seven ports are open to foreign commerce.

Finance.—The budget for 1898 was laid before his Majesty on Jan. 12. It was printed in a neat pamphlet, in mixed Chinese and Korean script. The total income is estimated at \$4,527,476, and the expenses at \$4,525,530. The income is from four sources: Government tax, \$3,779,316; miscellaneous income, \$40,000; mint seigniorage, \$200,000; surplus from last year, \$508,160. The chief items in the income are land taxes, \$2,227,758; customs returned, \$750,000; taxes in arrears, \$358,000; house registration, \$229,558; ginseng monopoly, \$150,000; gold mines, \$40,000; miscellaneous, \$24,000. The land tax is an assessment on the grain-bearing ability of the land under cultivation, all the farming lands being divided into 13 classes, according to the character of the crop and the fertility of the soil. Formerly the farmers' taxes were paid in kind, and the grain was stored in fire-proof storehouses, and often the Government made popular loans, at small interest, from the surplus money derived from the sale of the grain. The rule is now payment of taxes in coin. The scale of taxes graduated on the unit *kyel*, or heap of grain, is from \$6 for first-class land, which includes the rich rice swamps of the central and southern provinces, down to 40 cents for the rocky and sterile regions of the north. The central and southern provinces fall within the first 3 classes, while the 2 northern provinces are classed from the fifth down to the thirteenth grade. The total revenue from land should be \$4,876,475, but on account of crop failure and other causes the sum is reduced to \$4,455,516. Other causes, which reveal the difficulties of good government, are seen in the fact that the

actual amount expected to be realized from the land taxes is only \$2,227,758. Furthermore, instead of getting, as the Government ought to, \$688,674,206 on the house registration tax of the 13 provinces, only \$229,558 is placed in the budget, and the other two thirds are rejected as fictitious and unreliable assets. The reason why there are arrears of \$3,578,000, of which only one tenth, or \$358,000, are set down as collectible, is on account of the defective land survey, made three hundred years ago, and the ever-present *yang ban*. Hundreds of poor people pay taxes on land long ago washed away or ruined by flood or landslide, while many influential *yang bans* pay little or nothing for the use of their rich land. The miscellaneous taxes are from the sale of licenses to boats, butchers, salt makers, fishermen, seaweed gatherers, and raisers of ginseng.

In the expenditures, \$560,000 are for the Imperial House, \$182,296 for the Foreign Department, \$1,251,745 for the War Office, \$892,197 for the Finance Department, \$1,225,655 for Home Affairs, and the remainder for the other departments. In the extraordinary expenditures we note \$70,000 for sacrificial rites and \$30,000 for improvement of the roads and streets in Seoul. The new money of the Korean mint is steadily displacing the old perforated "cash." The Japanese silver *yen*, formerly in circulation, is giving way to the new coinage of Japan, calculated on a gold basis, and to the new native metal money.

Foreign Trade.—The total shipping for the 5 ports of Korea in 1897 amounted to 2,417 entries, with a tonnage of 601,275 tons; of this the Japanese flag covered 1,785 vessels and 462,904 tons, so that a very large proportion of Korean trade is carried in Japanese bottoms. The year was prosperous, the trade being almost double the highest figure it had reached at any time in the past. We give the figures in dollars for convenience, though the basis is the silver yen. The increase was from \$7,986,840 in 1893 to \$23,511,350. The total net trade in 1896 was \$12,842,509, the increase being due partly to the stimulus given to trade by the war of 1894-'95, the interest in public works, the suppression of smuggling, and the opening of the two new treaty ports. Instead of the imports being far in excess of the exports as before, there was something like a balance in 1897. The trade with the United States is mostly in petroleum, machinery, flour, provisions, household goods, and personal articles, amounting to at least \$400,000 in gold: petroleum, \$232,385; machinery for mines and railways, \$100,000; flour, \$25,000; household supplies, \$25,000. The English import trade amounted to about \$2,000,000 gold, of which three fourths was for cotton goods; Japanese cotton goods, \$500,000; piece goods of the United States, nearly \$25,000. Further possibilities and great promise are seen in the native paper, straw braid, tobacco, and the ree-plant fiber. The market appears to be open for foreign plows and agricultural implements. Wheat has appeared among the exports. The Japanese yarn has almost wholly displaced the British yarn, because it is twisted from left to right, which suits the Korean spindles, English yarn being twisted in the opposite direction, and thus getting loosened and tangled in the process of weaving. The imports of the Japanese yarn at Chemulpo in 1897 doubled in value over the previous year. The new seaports—Mokpo, in the rich province of Chulla, the most fertile in the empire, and Chinampo, on the Ping-Yang inlet, 15 miles from the sea and near a city of 40,000 people—have proved very successful. General foreign settlements, of 225 acres each, have been laid out, and colonies of about 200 Japanese settlers, each with consulate, post office, and other

accompaniments of Japanese civilization, have been formed.

Gold Mines.—The German gold-mining concession from the Government gives the firm the right to select "anywhere in Korea, a few places excepted, a tract 20 miles long by 18 miles broad, and of working all mines for a term of twenty-five years on payment of 25 per cent. royalty on net profits." The export of gold dust rose from \$1,390,412 in 1896 to \$2,034,079 in 1897. An estimate made by an American expert puts down the gold known to be annually obtained in Korea at \$3,000,000, but there is reason to believe that the amount leaving the country clandestinely is at least as large as that declared at the customs. The increase in export of gold dust in 1897 from Chemulpo is accounted for by the fact that a rich mine was discovered at Ho-Yang, where 40,000 people were working. Gold is a duty-free export, though coal and all other minerals are dutiable. An American company, employing about 20 men from the United States, with California machinery, obtained the concession for working twenty-five years an area of 25 square miles in Ping-Yang province, the richest district in Korea. They are able to do what the natives could not do—control the water and carry on shaft mining—and have been very successful.

Railways.—The railway between the capital and the chief seaport, begun under American auspices but sold to Japanese capitalists, is nearly finished, and the long steel bridge across the Han river is under way. This road will have 5 stations, the chief being at Yong-San, Orikol, and Pupyon, with 2 flag stations. It runs from the river bank at Chemulpo, near the English consulate, to the little west gate at Seoul. A French syndicate has obtained the concession to build a railroad from Seoul northward, to the Chinese frontier at Wiju on Yalu river, with also the right to open mines. This road is to be 500 miles long, run through the mining region, and connect with the Russian road to be built in Manchuria, while the Japanese are making their preparations to build from Seoul to Fu-san. The American Oriental Construction Company have begun the building of the Seoul Electric Street Railroad, which will be 6 miles in length, operated by the overhead trolley system, with cars half open and half closed to accommodate two classes of passengers. A Korean company has been formed to light the city with the electric light, using the trolley company's power.

Land Survey.—To supply one of the greatest needs of Korea, the King issued a decree on July 8, organizing a bureau of land surveying and clothing it with extraordinary powers. The ministries of Home Affairs and Agriculture, with a staff of assistants, some of whom must speak English and Japanese, are charged with the work. The chief surveyor must be a foreigner with at least 10 assistants in practical work, with 20 students from the English and Japanese schools, the chief surveyor's assistants being either foreigners or natives, and his employment is for five years.

Politics and General Events.—On Jan. 10 mourning for the King ended and black hats were seen on the street. On Jan. 22 an attempt was made to assassinate Kim, the native Russian interpreter. On Jan. 27 Tai-Wen-Kun, the greatest figure in Korean history since 1864, died. On March 8 the British consulate was raised to the grade of a legation. On March 10 began a great anti-Russian demonstration which ended in the total withdrawal of Russian influences from the peninsula. The Russian military commission and drill instructors soon afterward departed, and the Russo-Korean bank was closed. The correspondence of the Russian minister showed that Russia

henceforth considers Korea beyond her sphere of influence. Great improvements in cleansing, enlarging, and paving the streets of Seoul were carried out. On May 29 the new Roman Catholic Cathedral, erected at a cost of \$60,000, was dedicated. It is 202 feet long and from 60 to 90 feet wide. The rice crop this year was unusually large. The new national postage stamps are in four denominations—green, 5 poon or 1 cent; blue, 10 poon or 2 cents; brown, 25 poon or 5 cents; purple, 50 poon or 10 cents, with characters at the top in ancient Chinese, meaning "Cho-sen postage stamp," the same meaning being expressed in Korean at the bottom. The denomination is also given in English and Korean. The plum blossom, which is the royal flower of the dynasty, is in each corner, while the national emblem, in the center, is the ancient representation of the male and female elements of nature; the four characters at the corner of the center piece represent the four spirits that stand at the corners of the earth and support it on their shoulders. There are 200 Americans in Korea, 30 being on the railway or in the gold mines, 7 in Government employ, 3 in trade, and the rest missionaries or children. The year 1898 is a

notable one for missionary success in all lines of work, in the development of the native and foreign press, and in the advance of education. The budget provided for the organization in 1898 of 20 new Government schools, 1 in Seoul (where there are already several private, missionary, and foreign-language schools), 1 normal and 9 primary schools, 1 school in each of the provincial capitals, and 1 in each of the 6 open ports. On Sept. 10 the imperial birthday was celebrated widely throughout the country, with unusual demonstrations of loyalty, and Founder's Day and the five hundred and sixth anniversary of the dynasty was likewise honored with unusual demonstrations and illumination of the capital. The beginnings of modern parties are seen in the Independent Club and the Imperial Club, which represent respectively the progressive and the conservative tendencies in Korean politics. On Sept. 12 an attempt was made to kill the King and the Crown Prince by poison in coffee. On Aug. 31 George W. Lake, an American merchant, was murdered. Marquis Ito, of Japan, visited the capital late in August. On Oct. 21 the national holiday in celebration of the imperial coronation completed the first year of the Korean Empire.

L

LADRONES, THE, OR MARIANA ISLANDS, a group of small islands in the north Pacific Ocean, belonging to the United States. They lie north of the Carolines, between latitude 18° and 21° north and longitude 144° and 146° east, 1,200 miles east of the Philippines, which were also captured from Spain by the United States in the summer of 1898. This little group consists of seventeen islands, the largest of which, Guam, is nearly equal to the rest put together, and the combined area of all is estimated at a little more than 400 square miles. They are dotted along in line so as to form a nearly perfect arc, Farrallon dos Parajos, the northernmost, and Guam, the southernmost, being 600 miles apart. The islands are really a partly submerged range of mountains of volcanic origin, the highest of whose peaks rises 2,320 feet above the level of the sea. This is the summit of Alamagan, a living volcano. On Pagan and Asuncion islands there are craters whose fires are not yet extinct, and Farrallon dos Parajos has an active volcano 1,300 feet high. Some of the islands are of coralline limestone that has been built up on members of this range which fell short of reaching the surface of the water.

Magellan, in his attempt to voyage around the globe, in 1521, discovered these islands, and he gave them the name of Ladrones, or the robbers, referring to the supposed character of the natives. They were later explored by Byron, Wallis, and Freycinet, and by Anson, who, in 1742, found cyclopean ruins on the island of Tinian.

The Spanish queen sent missionaries to settle in the islands in 1667, and this little group, once the Ladrones, afterward called the Lazarus Islands, were named by them the Marianas, in her honor. At the time of the Spanish occupation of the islands the Chamorros, or aborigines, who were, in speech at least, akin to the Tagals, and whose few remaining members appear to be a mixture of the Papuan and Indonesian races, numbered about 40,000. They were reduced to slavery by the invaders, and so harshly treated that, by the close of the seventeenth century, less than half remained, many having perished, and some escaped to the Caroline Islands. Of the 180 native villages more than two thirds had been destroyed. Epidemics swept the

remaining native population from the island of Guam, and the Spanish authorities ordered an immigration thither from the island of Tinian, but this expedient proved worse than useless, as the immigrants soon died of inanition. The islands had been reduced in 1760 to a population of 1,654, and the Spaniards then re-peopled them with colonists from the Philippines. Mexican settlers also came, and, more recently, Polynesians from the Carolines were imported to work on the plantations. The island of Guam became an important station for Spanish ships plying between Manila in the Philippines and Acapulco in Mexico.

Agana, on Guam, is the chief settlement, containing a majority of the whole population of the islands, besides the political prisoners who have been banished to them. It has a good fortified harbor, and here the Spanish Governor resided, and the Spaniards maintained a small garrison, the islands being under military rule.

The Ladrones are picturesque, mountainous islets, most of them well-wooded. Rota, or Sarpan, containing Mount Tempingan, is rock-bound; Tinian, the next but one, is of gentler outlines, and is especially beautiful; Saypan, its neighbor, has a pearl fishery on its coast, and two extinct volcanoes at its northern end; Agrigan and Pagan also have each an extinct cone. The hills of Guam rise to a height of 1,500 feet; below them lie wooded and grassy plateaus, sandy plains, and a high and rugged margin next the sea. Just south of Guam lies the Rose Bank, which is the northern boundary of a cavity of 2,475 fathoms, being the deepest in that part of the Pacific; but about the islands there are shoals, and these and the many currents make navigation dangerous. The stretch of ocean between the Philippines and these islands has scarcely any reefs or islets at all, and the soundings show places of 1,200 to 1,500 fathoms in depth.

Although situated within the tropics, the Ladrones have a very agreeable climate: the north-east trade winds prevail during what is known as the dry season—from June to September—though there is moisture at all times. There is an abundant rainfall, and full streams everywhere, except where the calcareous soil absorbs the water. In

some places, through the destruction of the forests, freshets have been increased, and droughts made more common, the rainfall having been diminished in this way.

Finest specimens of the cocoanut, the bread fruit, and the banana may be found here. Sugar, rice, corn, wheat, arrowroot, the guava, figs, indigo, cotton, and tobacco are other products. The present growth has for the most part been transplanted here in recent times; new plants were brought by the colonists from the Philippines. The indigenous flora was mainly of Asiatic species, and has almost disappeared. Cattle, horses, and llamas were introduced by the Spaniards soon after

saluted. He sent out to apologize, saying that lack of ammunition prevented him from returning the salute, and learned then for the first time that his country and the United States were at war, and suddenly found his dominions captured by the enemy. The islands were occupied by the United States in July, 1898.

LIBERIA, a republic on the west coast of Africa, founded by emancipated American slaves, with a constitution copied from that of the United States. The Senate has 8, and the House of Representatives 18 members. The President is W. D. Coleman, who, as Vice-President, succeeded to the office on the death of President J. Cheeseman, Nov. 13, 1896.



VILLAGE OF SAYPAN, LADRONE ISLANDS.

they came to the islands, and there are many wild hogs which here grow very large. The keradren, a large bat, is the only indigenous mammal, and its flesh, though it has a very unsavory odor, is eaten by the natives. There are but few birds or insects, and one species of serpent and a few kinds of lizards are the only representatives of the reptiles. Fish swarm in the lagoons.

Guam contains six sevenths of all the population. The other inhabited islands are Rota, Tinian, Saypan, and Agrigan, the northern ones occupied only by a few fishermen. And in Tinian is a community of lepers.

When Anson visited Tinian he found there well-made houses, and outriggers that could make 20 knots an hour, but rude cabins and canoes have replaced these. The people have deteriorated, and though they have been baptized and taught to read Spanish, their agriculture and weaving are inferior to the former work of the natives, and the art of pottery, once practiced in the islands, has disappeared.

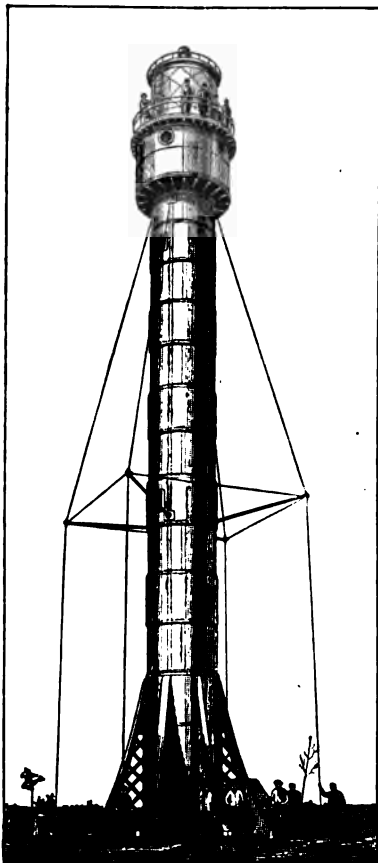
The Spaniards have maintained but one mail a year between Agana and Manila; so it is hardly surprising that the last Governor upon hearing, on May 20, 1898, the firing of guns from an American war vessel, could only conclude that he was being

The area of the republic is about 14,360 square miles, and the population is estimated at 1,068,000, of whom 18,000 are civilized negroes of Afro-American descent and 10,050,000 native tribal negroes.

The revenue, which is derived mainly from customs, for 1894 was \$158,861, and the expenditure \$151,975. A debt of £100,000 was contracted in 1871, but no interest has been paid since 1874. An internal debt has likewise been in default for many years. The chief exports are coffee, palm oil and kernels, rubber, cacao, sugar, arrowroot, ivory, and hides. The export trade in rubber was given to a syndicate, which undertook to take 200 tons a year for three years from 1896.

LIGHTHOUSES, RECENT PROGRESS IN. Development in lighthouses, during the past ten years, has taken the direction of steel construction in preference to stone for the structures, and the use of increased force and distinctness in the lights. Nearly all the recent towers built by the Lighthouse Board in the United States are of steel or iron, and Trinity House (a lighthouse board of Great Britain) has not erected any rock towers since 1887. This is owing partly to the lower price at which structural steel and iron can be obtained, and partly to the increased facility with which the material may be had in the desired shapes and sizes.

The total number of lighthouses and beacon lights maintained by the Lighthouse Establishment in the United States in 1898 was 1,179; but as this figure includes many insignificant lights on the seacoast and harbors, it may be safely assumed that only about 500 are lighthouses proper, and only a comparatively small number of these maintain lights of the first order. The increase in number in the past decade has been about 45 per



A MODERN STEEL TOWER, AT STURGEON BAY CANAL, WIS., WITH A LANTERN OF THE THIRD ORDER.

cent. In the United Kingdom the Admiralty list shows a total of about 1,100 lights, a gain of 200 in ten years. Eleven to 12 per cent. of these are sea lights of high power, and 6 to 7 per cent. are lightships. On the rivers of the United States the Lightship Board also maintains 1,739 post lights, which are shifted as required by changes in the channels.

In the United States mineral oil is preferred as an illuminant and is used almost altogether, though there are a few electric lights. In the United Kingdom either gas or petroleum are used for illuminating, according to convenience and local conditions, and in a few cases electric lights are used. While the arc light may be made to develop exceptional brilliance, it is not as acceptable for lighthouses as for illumination on land, because it is so much affected by atmospheric conditions. During foggy weather, when the strength and penetrating power of a light are most needed, the electric light is most liable to dim; hence its value on the water is much reduced, and although, when first introduced into lighthouse use, it was com-

mended, it is now generally regarded with small favor. In United States usage, six orders of lights are maintained: the first of 5 wicks, having 450 candle power; the second of 3 wicks, having 163 candle power; the third of 2 wicks, having 78 candle power; the fourth of 1 wick, having 32 candle power; the fifth of 1 wick, having 18 candle power; and the sixth of 1 flat wick, having 12.5 candle power. The light given out and the distance from which it can be seen vary so much under different conditions and with different observers that the candle-power statement hardly conveys a correct idea of the power of the lights. There is also a considerable difference in methods of estimating candle power. The experiments of the Lighthouse Board indicate that a white light of 1 candle power is visible at a distance of 1 mile, 2 candle power at 2 miles, 3 candle power at 3 miles, while at 4 and 5 miles the power has to be increased to 23 and 33 candle power respectively to be seen clearly. Of course, the conditions of the atmosphere as to dryness or humidity, dustiness or freedom from dust, are so varied that these figures can be taken only as approximate, giving a fair average in moderately clear weather. With colored lights the candle power requires to be increased enormously, as the colored glass absorbs a very large percentage of the light.

There has been a gradual tendency to increase the size of lanterns for sea lights, and 14 feet diameter has succeeded 12 in several instances. Circular galleries are provided both inside and outside for access and cleaning. The best plate glass, half an inch thick, is used, and there have been improvements in the ventilators. The use of mixed lights—that is, lights of both fixed and rotating sections—has materially decreased, and they are now regarded with disfavor. Colored lights also have been generally abandoned for sea lights, though still maintained in harbors. It was formerly thought to be an advantage to differentiate the colors of lights along a coast, in order that mariners might not mistake one light for some neighboring light; but this advantage has been more than offset by the loss in distance from which a colored light can be distinguished, and it is found possible to differentiate the lights of a coast equally well by giving a different time to the flashes. The flashing light not only proves the best safeguard against mistakes, but it increases materially the distance from which a light is perceptible. The general adoption of flash lights for sea use has been followed by a shortening of the period of the flashing. Whereas intervals of one minute were formerly employed between flashes, the periods are now commonly reduced to twenty, ten, or five seconds, and the tendency is toward an even greater reduction, as it has been demonstrated that the best results are obtained with the shortest appreciable intervals. Lord Kelvin has gone so far as to advocate the use of flashes separated only by fractions of a second.

The flashing of the light is obtained in the case of electric or other lights by regular occultation, as by a rotating annular lens bearing dark shades, and in the case of oil lights it is often obtained by regular raising and lowering of the wicks. In order that a light may be visible to the greatest distance, it is not only necessary to secure a short interval of flash, but it must also have the greatest intensity of beam. In other words, the greatest portion of the light must be turned in the desired direction, and this increased power has been sought by the substitution of annular for cylindrical lenses, and by rotating for fixed sections. Lenses have been given a longer focal distance and larger condensing surfaces. Variations and extensions of

the Fresnel refractors have been made to give a higher coefficient of beam. Charles A. Stevenson's improvements on the Fresnel lens have been introduced in several Scottish lighthouses, and are claimed to give an advantage of about 10 per cent. over the older forms.

There have been no important changes in burners within recent years. A mercury float carriage has been introduced with some of the new rapidly rotating lights erected in localities subject to seismic disturbances, the advantage being that the float is not disturbed by earth tremors.

The last report of the United States Lighthouse Establishment shows that 1,839 light keepers are employed, besides 1,226 assistants and 1,356 laborers. There are 50 light vessels, 439 day or unlighted beacons, and more than 5,000 buoys, of which 66 are electric or gas buoys.

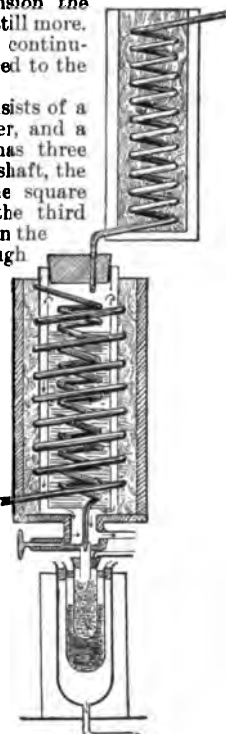
LIQUEFIED AIR. Atmospheric air reduced to liquid form by cold and pressure. Its boiling point is -191°C ., its freezing point -207° and its density 0.933. It is noteworthy as being the first gas to be liquefied in large quantities.

History.—Gases were first liquefied by Michael Faraday, who reduced to liquid form by pressure cyanogen, carbon-dioxide, and others. As he did not succeed with all, he concluded that oxygen, nitrogen, hydrogen, and some other gases were permanent, and this distinction was made for some time. The discovery by Andrews of the "critical point"—that is, the discovery that for every gas there is a temperature above which pressure alone can not liquefy it—made it probable that the "permanence" of these gases was merely apparent, and was due to the fact that their critical points are very low. Efforts were therefore made to attain very low temperatures, and these have been rewarded by the final liquefaction of all gases, and the consequent abolition of the distinction between liquefiable and permanent gases. The failure to liquefy certain gases is now seen to have been due to the fact that their critical temperature is mostly below -100°C . Oxygen was first liquefied by the French physicist Cailletet, who obtained it in the form of mist by compressing it in a freezing mixture and then suddenly liberating it, thus further lowering its temperature. Pictet, another French experimenter, obtained the liquid gas in quantities large enough to be experimented upon by using a series of gases that had successively lower boiling points. By first liquefying sulphurous acid and then accelerating its evaporation with a vacuum pump he reduced its temperature to -65°C . With this he cooled carbonic acid gas, which was then liquefied by pressure and connected with the vacuum pump in its turn, and its temperature was thus lowered so that it is solidified and reached a temperature below the critical point of oxygen. By using a similar series, of which oxygen itself was the final member, Olszewski solidified nitrogen and other gases. The first to obtain, or at any rate to exhibit, liquefied atmospheric air in considerable quantities was Prof. James Dewar, of the Royal Institution in London. Concerning priority in the liquefaction of certain gases and the use of certain apparatus for this purpose, there has been a bitter controversy between him and Prof. Olszewski, regarding the merits of which scientific men are divided. Prof. Dewar, by means of a series of successive operations of the type just described, obtained in 1894 about two quarts of liquefied air, which he said cost him about \$5,000. In 1898 Charles E. Tripler, of New York, made a machine in which, using only the atmosphere itself as a refrigerating substance, he achieved the continuous liquefaction of air, so that it can be drawn off through a faucet in any desired quantity. Similar

devices have since been operated in Europe. Mr. Tripler's machine works on the principle of intensive refrigeration. Every one is familiar with the lowering of temperature produced by the sudden release of a compressed gas. It is this that causes the fog about the mouth of a bottle of beer or soda water when it is opened. The cooling is due to the conversion of heat energy into the mechanical energy of expansion. In Mr. Tripler's machine condensed air is permitted to cool to the temperature of the surrounding atmosphere and then allowed to expand suddenly, thus lowering its temperature further. This cooled air is used to cool other condensed air, by whose expansion the temperature is then lowered still more. By repeating the operation continuously, the air is finally reduced to the liquid state.

Mr. Tripler's apparatus consists of a triple air compressor, a cooler, and a liquefier. The compressor has three pumps in line on one piston shaft, the first giving 60 pounds to the square inch, the second 750, and the third 2,000. After each compression the air is cooled by passing it through jacketed pipes surrounded by city water, and after the third compression it is cleaned. It then passes to the liquefier where, by means of a special valve of Mr. Tripler's invention, whose details are not made public, a portion of it is allowed to expand and passes into the space between two concentric tubes, through the inner of which the remainder of the air is flowing. The latter is thus greatly cooled, and by a repetition of the process it is finally liquefied and may be drawn off from the valve at the bottom of the apparatus. Tripler's original apparatus, based on this principle, was used in 1890, and is only 12 inches long and $1\frac{1}{4}$ in diameter. His present plant will produce 30 to 40 gallons of liquid air in a working day of ten hours, with an expenditure of 40 to 50 horse power. The liquid appears in less than fifteen minutes after the first pump has been started. The properties of liquid air may be classified under three heads—those due to its low temperature; those due to the high pressure developed by its evaporation in a closed space; and those due to the fact that it speedily becomes much richer in oxygen than atmospheric air, since its nitrogen boils away faster than its oxygen.

Temperature.—The usual temperature of liquid air is that of its boiling point at ordinary atmospheric pressure, -191°C . or -320°F . This, of course, can not be raised by applying heat at atmospheric pressure, which only makes the liquid boil away faster. It could theoretically be raised by heating the liquid under pressure, but the pressure developed by its own expanding vapor (ordinary air) is so great that it can not safely be confined. The boiling point can be lowered by lowering the atmospheric pressure by means of a vacuum pump, and thus the liquid can be reduced to a temperature of -210°C . Notwithstanding this low temperature the hand may be dipped into the liquid with impunity, being protected by the formation of a layer of vapor, although severe frostbites result from continued or



DEWAR'S APPARATUS
(1896).

careless handling. The most evident result of the low temperature of the liquid is the dense fog that surrounds it and proceeds from it, curling over the sides of the containing vessel and falling to the ground or floor where it gradually dissipates. In draining off the liquid from the compressor this fog accumulates in a cloud or bank on the floor, and its temperature is so low that the feet of the operator may be frozen if he is not careful.

The liquid is normally in a state of ebullition, whose violence varies with the surrounding temperature. On being poured, for instance,



FREEZING RUBBER BALL.

into an ordinary glass tumbler it begins by boiling violently, but soon the glass and surrounding air become cooled nearly to the temperature of the liquefied air, the glass is densely coated with hoarfrost, while the liquid becomes quieter and may be seen to be of a steel-blue tint. A tumblerful of it will boil away in a few minutes; a larger quantity—3 or 4 gallons—in a double-walled can, packed in felt, may last eight or ten hours. It must always be kept and transported in an open receptacle owing to the dangerously high pressure developed when it is confined; hence to keep it for any great length of time or to transport it to a distance is at present an impossibility. Prof. Dewar has invented a form of vessel known as the Dewar bulb, which reduces the loss by evaporation to a minimum, and in this about a gill of liquid air has been kept with great care for about forty hours. The Dewar bulb is a double-walled glass bulb having the air exhausted from the space between its walls and having one wall silvered. The vacuum prevents accession of heat by convection or conduction and the polished metal shuts off radiation.

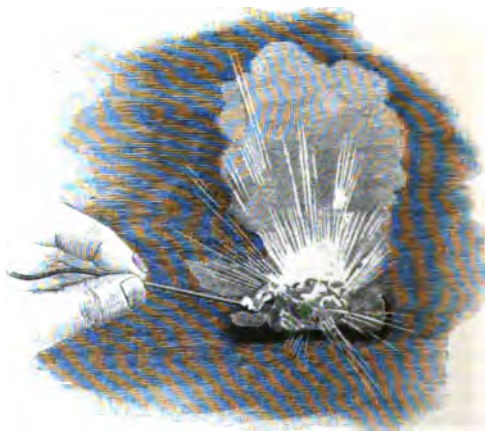
Vaporization when the liquid is agitated or divided is much hastened. When a cupful of it is tossed into the air it descends in a shower of drops like water, but most of these vanish as by magic before they touch the ground. Objects placed in the liquid are quickly frozen solid. India rubber becomes brittle and can be broken to bits with a hammer; bread, eggs, or meat become similarly brittle, and even paper can be crumbled in the hand as if scorched. Sheet iron or tin plate can be broken with the hand. Whisky and mercury are frozen solid. The latter has the appearance of silver and a piece of it can be used to drive a nail or to sustain a weight. If liquefied air be placed in a teakettle over a fire the vapor is expelled through the spout to a great height, and water poured into the kettle is frozen solid while it is still over the fire. The bottom of the kettle becomes covered with solid carbon-dioxide in the form of "snow" while almost close to the red-hot coals of the fire.

Pressure.—The boiling point of the liquid being so low, the pressure necessary to bring this point up to the ordinary atmospheric temperature—that is, to cause the evolution of vapor to cease—is enormous. If the liquid is confined, therefore, ebullition will continue with the consequent production of gaseous

air, until this enormous pressure is reached. In practice the liquid can not be confined. Enough pressure is developed in a small tube to project a tightly driven cork with violence in a small fraction of a second, and the pressure soon becomes dangerous. The liquid must be kept and transported in open vessels, as noted above.

Oxygenation.—The boiling point of nitrogen being 13° C. below that of oxygen, nitrogen is distilled out in the first boiling, so that the liquid becomes steadily richer in oxygen, whose proportion very soon exceeds 75 per cent. The liquid as ordinarily experimented with is thus practically liquid oxygen, and its vapor is gaseous oxygen. All the familiar combustion experiments with oxygen can be performed in the vessel in which it is boiling. A sponge saturated with the liquid explodes when lighted, paper soaked in it burns vividly, and a steel pen or a watch spring burns when the end is heated red-hot and dipped in it. If a rod of carbon, such as is used in the electric arc light be heated to redness and then plunged into the liquid, very vivid combustion takes place, yet, owing to the low temperature of the liquid air, the other end of the carbon may be held in the hand. In this experiment the carbon at a temperature of about $5,000^{\circ}$ F. and the air at -312° F. are in actual contact, and this whole range of temperature may be included within an ordinary glass tumbler. The richness of the liquid in oxygen makes some of the experiments with it dangerous. Thus the freezing of whisky, alluded to above, produces a very powerful explosive, and the bringing of a lighted match into contact with the frozen alcohol would be disastrous.

The rapid increase in the proportion of oxygen in the liquid is strikingly shown by pouring some of it into water. Liquid nitrogen is lighter than water, having a specific gravity of 0.885, while liquid oxygen is heavier than water, its specific gravity being 1.124. The preponderance of nitrogen in the mixture causes it to float at first, but, as the nitrogen boils away, drops of oxygen begin to sink into the water. As they do so they are partially vaporized, and the gaseous oxygen, tending to rise through



EXPLODING A SPONGE.

the water, communicates a peculiar whirling motion to the drop and drives it up again. This motion may be continuously repeated. The drops, which may be as large as an inch in diameter, have been called "oxygen divers."

The magnetic properties of liquid oxygen may be shown by filling a test-tube with it, allowing for the escape of the vapor by a side tube. The test

tube may be attracted by an electro magnet, as if it were a piece of iron.

Applications.—Liquid air is not yet manufactured commercially, and is not on the market. Mr. Tripler's laboratory in New York is probably at present the only place in the United States where it can be obtained in quantities sufficient to perform the experiments described above. But there seems no reason to doubt that it can be produced in as large amounts as desired, and that it will be for sale in the near future. All sorts of applications have been foreseen for it, but no one of them has yet been put on a practical basis. They depend chiefly on the three properties enumerated above—namely, the low temperature of the liquid, the pressure of its vapor, and its high proportion of oxygen.

The low temperature of the liquid naturally suggests its employment for refrigerating. It has been suggested that it may be distributed in pipes, or that an open vessel containing it may take the place of a huge lump of ice in refrigerators. The impossibility of confining the air and the rapidity of its evaporation seem at present obstacles to the practical realization of these plans. Another plan for utilizing the low temperature of the air depends on the fact that the resistance of metallic conductors to electricity decreases as their temperature falls. It has been stated that at the temperature of the liquid a copper conductor of moderate size could be used to transmit to New York the energy of Niagara. At this temperature pure copper becomes fifteen times and pure iron twenty-three times as good a conductor as under ordinary circumstances. The liquid is also a fine insulator, so that, if an induction coil were immersed in it, the resistance of the coil would become enormously smaller and at the same time its insulation would probably be improved. Very low temperatures have recently been used in a variety of applications, as in the purification of chloroform and similar liquids by freezing, the treatment of alcoholic liquors, and even in the cure of certain diseases; and liquid air may prove a convenient and economical means of obtaining the temperature desired for such purposes.

The great pressure developed by the liquid when confined seems to some to promise a great future for it as a motive fluid. The trouble is that this pressure is so high as to be almost uncontrollable and explosive. If the liquid is kept in a closed tank the tank must be fitted with a safety valve which shall not allow the pressure to rise above a certain degree, and this would involve continual "blowing off," with loss. As the product of the liquid's evaporation under such conditions is ordinary compressed air, which has long been used for motors, there is no doubt that it could be so used in this instance, but whether the liquid air would be the cheapest source of compressed air may be doubted. The "Engineering News" (New York, April 14, 1898) considers it possible that liquid air will have a large use for power storage, since, although its employment would be more expensive than present systems, and would return a smaller proportion of the power originally applied, it has the advantage of compactness. Liquid air occupies only about one fourth the space of air at 2,500 pounds' pressure. In a pound is stored 139,000 foot pounds of energy, the equivalent of $4\frac{1}{2}$ horse power exerted for a minute. The writer estimates that only one tenth to one twentieth this amount of energy to the pound can be stored electrically, and only one fourth by heated water. The estimates made by this writer suppose a high degree of perfection in methods, and represent future possibilities rather than present results. Others regard his figures as too sanguine, and are not inclined to believe that liquid air will

ever be used in the way he suggests. If it is, it will doubtless be so used only where small bulk is of paramount importance, as in motor carriages or in torpedo propulsion.

The richness of liquid air in oxygen may be utilized in two ways: 1. By allowing the nitrogen to boil off and then collecting the gas from the residue, very pure oxygen can be obtained, and it is possible that this method may at some future time be employed commercially. 2. The liquid mixed with a combustible forms a high explosive, and it has been proposed by Prof. Ewing, in a paper before the London Society of Arts (March 2, 1898), to use it practically in this way. He would pour the liquid, containing 40 to 50 per cent. of oxygen, on bits of wood charcoal 0.0001 to 0.0002 cubic inch in size. These are made into a sort of sponge by mixture with about one third their weight of cotton wool. In fifteen to thirty minutes all explosive power disappears by the evaporation of the liquid air, and it is only by inclosing the material in thick cartridge cases of paper that it is made to last as long as this. The explosive must therefore be mixed at or near the place where it is to be used. Satisfactory trials have been made near Munich, Bavaria, and it is claimed that even the fact that the mixture loses its explosive power so soon has the advantage that there can be no danger from unexploded charges, or from its use by criminals. If used, however, it will probably be found convenient chiefly where a considerable amount of blasting is to be done in one place, as in large quarries. It has also been proposed to employ the liquid air in diving operations, as a diver could easily carry a quart of the liquid, and this would furnish by evaporation 1,000 times its volume of gaseous air.

The effect of liquid air on living organisms does not seem to be as injurious as might be expected from its very low temperature. D'Arsonval (Paris Biological Society, June 9, 1898) says that, in experiments upon the action of liquid air on living tissues and membranes, he finds that actual contact does not take place, and that the liquid can even be swallowed. On drinking the liquid (about one tenth of a gill) mixed with champagne the stomach is at first distended, but is at once relieved by eructation. M. D'Arsonval kept bacilli in liquid air six days, and found that they were then still alive and capable of growth.

LITERATURE, AMERICAN, IN 1898. Only 42 fewer books were published during the year than in 1897, although the outlook for the publishing houses was far from favorable in the beginning of the year; thus 4,886 books are recorded, against 4,928 of last year, though it is to be taken into consideration that but 2,908 of these were by American authors, against 3,318 the work of native genius in 1897. Of books by English and other foreign authors (including new editions) 834 were manufactured in this country, compared with 495 last year, and the importations of books bound or in sheets were respectively 1,144 against 1,115. As a whole, the year showed a lower number of books published than any year since 1894, when 4,484 titles were recorded. The most marked increase shown in any department was, strange to say, in that of poetry. One hundred and eight more new books of poetry were sent out in 1898 than in 1897, and the number of new editions was considerably less. The quality, it may be observed, did not improve with the increase of quantity. More works



BURNING STEEL IN LIQUID OXYGEN.

of political and social science were also issued, more of history and general literature, and, especially, more juvenile books were sent out, while there was a marked increase in books on the fine arts and illustrated books, and a slight increase of fiction. The principal decrease shown was in law, theology, education, general science, biography, and mental and moral science. There were no really notable books in any department. The literature of the year was largely colored by the war with Spain, though few of the books called forth by it possess permanent interest or value.

Biography.—William Spohn Baker gave a minute presentation of "Washington after the Revolution, 1784-1799," supplementing his previous compilation, "The Itinerary of General Washington" during the Revolution, and from Sydney G. Fisher we had a glimpse of "The True Benjamin Franklin"; "Benjamin Franklin, Printer, Statesman, Philosopher, and Practical Statesman, 1706-1790," by Edward Robins, appeared in the "American Men of Energy Series"; Elbridge Streeter Brooks told "The True Story of Benjamin Franklin" for the "Children's Lives of Great Men," and "The Life of Benjamin Franklin, by Himself," edited by John Bigelow, went through a new fourth edition, revised and corrected, with additional notes, in three volumes. Abram English Brown gave us "John Hancock: His Book," a biography based upon the manuscript letters of the great patriot, and from Mellen Chamberlain we had "John Adams, the Statesman of the American Revolution," with other essays and addresses, historical and literary. "The Life of Charles Carroll of Carrollton, 1737-1832," with his correspondence and public papers, filled two volumes for which we are indebted to Kate Mason Rowland, and a second edition, revised and enlarged, appeared of "The Life of John Paterson, Major-General in the Revolutionary Army," by his grandson, Thomas Eggleston. Vol. I of "Letters to George Washington and Accompanying Papers," published by the Society of Colonial Dames of America, and edited by Stanislaus M. Hamilton, covered the period from 1752 to 1756. Vol. V was issued of "The Life and Correspondence of Rufus King," edited by his grandson, Charles R. King, M. D. Elbert Hubbard conducted us on "Little Journeys to the Homes of American Statesmen," and Thomas Allen Glenn edited the first of three volumes devoted to "Some Colonial Mansions and those who lived in them," with genealogies of the various families mentioned. The "Life and Administration of Sir Robert Eden," Governor of the Province of Maryland, 1768-'76, was the subject of a monograph by Bernard Christian Steiner, in the "Johns Hopkins University Studies." Much interest attaches to Charles A. Dana's "Recollections of the Civil War; with the Leaders at Washington and in the Field in the Sixties," and to James R. Gilmore (Edmund Kirke) we are indebted for "Personal Recollections of Abraham Lincoln and the Civil War." "Best Lincoln Stories" were tersely told by James E. Gallaher, and Hamlin Garland added to the biographies of Grant "Ulysses S. Grant: His Life and Character." The "Life and Letters of Thomas Kilby Smith, Brevet Major-General U. S. Volunteers, 1820-1887," came from his son, Walter G. Smith. "Reminiscences of the Old Navy," from the journals and private papers of Captain Edward Trenchard and Rear-Admiral Stephen Trenchard, by Edgar Stanton Maclay, in an edition limited to 750 copies, cover a period of eighty years and contain the inside history of the navy during that time. Martin I. J. Griffin wrote "The History of Commodore John Barry," in an edition limited to 200 copies, and from Admiral S. R. Franklin we have "Memories of a Rear-Admiral

who has served for more than Half a Century in the Navy of the United States." James Barnes commemorated "The Hero of Erie (Oliver Hazard Perry)." "Here, There, and Everywhere" was the title of delightful reminiscences of Mrs. Mary E. W. Sherwood. Col. Thomas Wentworth Higginson recalled his "Cheerful Yesterdays," and "Princeton, Old and New," by James W. Alexander, contained recollections of undergraduate life. "Autobiographical Reminiscences" of Henry Ward Beecher were edited by T. J. Ellinwood from sermons and lecture-room talks; "Recollections of a Nonagenarian," by John C. Holbrook, D. D., and "Led on, Step by Step," by Anthony Toomer Porter, D. D., belong to clerical autobiography, and contain the experience of well-known and representative men; while from Henry Clay Trumbull, D. D., we have "War Memories of an Army Chaplain," which made their appearance at a peculiarly fitting time. "Seven Months a Prisoner," by J. V. Hadley, belonged to the same period. In the "American Explorers Series" appeared "Forty Years a Fur Trader on the Upper Missouri," the personal narrative of Charles Larpenteur, 1833-'72, in two volumes, and "The Journal of Jacob Fowler," narrating an adventure from Arkansas through the Indian Territory, Oklahoma, etc., to the sources of the Rio Grande del Norte, 1821-'22, both edited, with notes, by Dr. Elliott Cones, in editions limited to 950 copies. "Anti-Slavery Leaders of North Carolina," were the theme of John Spencer Bassett in the "Johns Hopkins University Studies." "Passages from the Correspondence and Other Papers of Rufus W. Griswold" were edited by his son, W. M. Griswold; "Memoirs and Letters of James Kent, L.L. D., late Chancellor of the State of New York," by his great-grandson and namesake, James Kent; and "Early Letters of George William Curtis to John S. Dwight: Brook Farm and Concord," by George Willis Cooke. A "Life of Samuel Sullivan Cox" was written by his nephew, William Van Zandt, and his friend Milton Harlow Northrup, and "Samuel E. Sewall: A Memoir," was from the pen of Nina Moore Tiffany. "The Life of David Dudley Field," by Dr. Henry M. Field, was a remarkable tribute from one brother to another of a distinguished family. Little need be said to recommend "Charles Carleton Coffin, War Correspondent, Traveler, Author, and Statesman," by Dr. William Elliot Griffis, or "Joseph Jefferson at Home," by Nathan Haskell Dole. M. A. De Wolfe Howe published sketches of "American Bookmen," and Mrs. Hattie Tyng Griswold "Personal Sketches of Recent Authors," while Ida Comstock Below gave a charming portrait of "Eugene Field in his Home." "Horace Mann and the Common School Revival in the United States" was contributed by Burke Aaron Hinsdale to the "Great Educators Series." "Eighty Years and More" (1817-1897) is the title of reminiscences of Mrs. Elizabeth Cady Stanton, which are supplemented by "The Life and Works of Susan B. Anthony," in two volumes, by Ida Husted Harper; "Frances E. Willard" was a memorial volume by Anna A. Gordon, which had an introduction by Lady Henry Somerset, with character studies and memorial tributes from all parts of the world; and "Frances E. Willard: The Story of a Noble Life," came from Florence Witts. "Eminent Missionary Women" were the subject of a small volume by Mrs. Annie Ryder Gracey. "Tennyson: His Home, his Friends, and his Work" were carefully reviewed by Elizabeth Luther Cary. "Jerome Savonarola: A Sketch," was written by Rev. J. L. O'Neil in commemoration of the fourth centenary of the death of the famous preacher, and "Petrarch: The First Modern Scholar and Man of Letters," had a selection of

his correspondence with Boccaccio and other friends, designed to illustrate the beginning of the Renaissance, translated by Prof. James Harvey Robinson and Henry Winchester Rolfe, and accompanied with an historical introduction and notes. "Heroic Personalities" were recalled by Dr. Louis Albert Banks, D. D., while the always interesting and romantic "Buccaneers and Pirates of our Coasts" were a novel theme for the pen of Frank R. Stockton. "De Soto and his Men in the Land of Florida" were followed with spirit and accuracy by Grace King, while Noah Brooks told "The Story of Marco Polo" anew. "Tuen, Slave and Empress," by Kathleen Gray Nelson, traced the remarkable career of the dowager ruler of China, while "The Story of Evangelina Cisneros, told by herself," contained also the story of her rescue written by Karl Decker, and was illustrated by Frederick Remington, T. Fleming, and others. "The Life of Henry Bradley Plant," the founder and president of the Plant system of railroads and steamships, by G. Hutchinson Smyth, outlined a successful business man. "A Memorial of a True Life" was the title of a biography of Hugh McAllister Beaver, by Robert E. Speer, and another earnest worker in the cause of Christianity was chronicled in "The Setting of the Crescent and the Rising of the Cross; or, Kamil Abdul Messiah: A Syrian Convert from Islam to Christianity," by Henry Harris Jessup, D. D. "A Yankee Boy's Success," by Henry Steele Morrison, narrating his experiences as a boy reporter, had an introduction by Chauncey M. Depew, and Will M. Clemens edited "The Depew Story-Book." "Black-Belt Diamonds" was the title of gems from the speeches, addresses, and talks of Booker T. Washington to students of Tuskegee Institute, Alabama, selected and arranged by Victoria Earle Matthews. A compilation by William S. Pelletreau of "Early Wills of Westchester County, New York, 1664-1784," contained also genealogical and historical notes; "Early Germans of New Jersey" had their history, churches, and genealogies revived by T. F. Chambers; while a collection of sketches of "Representative Deaf Persons of the United States of America" was edited by James E. Gallaher.

Criticism and General Literature.—Under this head are to be recorded several volumes of essays, notably "Exotics and Retrospectives," by Lafcadio Hearn; "Essays on Work and Culture," by Hamilton Wright Mabie; "As it Seems to Me: Essays," by Elbert Hubbard; "Music and Poetry: Essays upon some Aspects and Inter-Relations of the Two Arts," by Sidney Lanier, and "Essays in Dramatic Criticism," with impressions of some modern plays, by L. Dupont Syle. "The Principles and Methods of Literary Criticism" were examined by Prof. Lorenzo Sears, and Charles F. Johnson entered into the "Elements of Literary Criticism." Harriet Noble prepared a handbook for the study of "Literary Art," and Henry Spackman Pancoast "An Introduction to American Literature" as a companion volume to his previous "Introduction to English Literature." "Emerson and Other Essays," by John Jay Chapman, display much originality as well as ability, and from William Cranston Lawton we have a careful study of "The New England Poets," and a review of the "Successors of Homer." "The Bibliotaph and Other People," by Leon H. Vincent, proved sympathetic and entertaining; Lillian F. Field wrote "An Introduction to the Study of the Renaissance"; John Scott Clark proposed a laboratory method for "A Study of English Prose Writers"; and Vida Dutton Scudder reviewed in graphic fashion "Social Ideals in English Letters." Rev. Greenough White edited papers of the English Club of Sewanee upon "Mat-

thew Arnold and the Spirit of the Age," and William G. Ward set forth "Tennyson's Debt to Environment" in a brief monograph. William H. Fleming told us "How to Study Shakespeare," and Frank M. Bristol advanced a theory concerning "Shakespeare and America." Kuno Francke proffered "Glimpses of Modern German Culture." Caroline Louisa White contributed a new study of the life and writings of "Aelfric" to the "Yale Studies in English," another issue of which was "Dryden's Dramatic Theory," by M. Sherwood. Caroline K. Sherman made a brief critical analysis of "Dante's Vision of God," and Walter Copeland, the author of "Greek and Roman Sculpture," treated exhaustively of "The Women of Homer." "Men and Manners of the Eighteenth Century" were described by Susan Hale for the "Chautauqua Reading Circle Literature"; "Home Life in Colonial Days" was from the practiced pen of Mrs. Alice Morse Earle; while Mrs. John King Van Rensselaer gave a picture of "The Goede Vrouw of Mana-hata at Home and in Society, 1609-1760." John C. Van Dyke wrote with subtle charm of "Nature for Its Own Sake," making what he termed first studies in natural appearances; Charles M. Skinner made us in love with "Do Nothing Days"; and from Dr. Charles Conrad Abbott we heard of "Clear Skies and Cloudy." "The Cross in Tradition, History, and Art" was the subject of an exhaustive study by Rev. William Wood Seymour. Mrs. Amelia Edith Barr treated of "Maid, Wives, and Bachelors" in the realm of reality, having so long successfully handled them in romance; Eliot Gregory, posing as "An Idler," dwelt on "Worldly Ways and Byways"; while Hamilton Wright Mabie contributed an introduction to "Our Conversational Circle," by Agnes H. Morton. "The Gentle Art of Pleasing" was suggested by Elizabeth Glover, and "Helps to Right Living" by Katharine H. Newcomb, while Mrs. Constance Cary Harrison (Mrs. Burton Harrison) discoursed of "The Well-bred Girl in Society." "Facts about Book Worms" as to their history in literature and work in libraries were vouchsafed by Rev. J. F. X. O'Connor, and the "First Report of a Book Collector," by William Harris Arnold, contained much specific information. "Myths and Legends beyond our Borders," by Charles M. Skinner, contained the folk tales of Canada and Mexico, while from Minnie Walton Myers we had a summary of "Romance and Realism of the Southern Gulf Coast," and from John Trotwood Moore "Songs and Stories of Tennessee." Collections of "Wit and Wisdom from many Minds" filled two volumes, and among other compilations are to be mentioned "Golden Thoughts from the Great Writers," arranged by Alfred J. Fuller, and "Treasure Bits," by Rose Porter; "Great Words of Great Americans," selected by Paul Leicester Ford, were supplemented by seven representative specimens of "Modern American Oratory"; "Choice Readings for Public and Private Entertainments," edited by Robert McLean Cumnock, went through a new revised and enlarged edition; while "A Century of Indian Epigrams," chiefly from the Sanskrit of Bhartrihari, were translated by Paul Elmer More. Nathan Haskell Dole offered a practical manual of corrections for "The Mistakes We Make" in history, language, and facts. The second annual volume of the "Cumulative Index to a Selected List of Periodicals," edited by the Cleveland (Ohio) Public Library, was issued, as was a second revised edition of the "American Library Association's List of Subject Headings for use in Dictionary Catalogues." Luther S. Livingston compiled "American Book Prices Current for 1898," of which a limited edition was published; "The Bookman Literary Yearbook" for 1898 was edited by James Macarthur; "The Annual Literary Index,

1897," was the work of W. I. Fletcher and R. R. Bowker; the "Trade List Annual, 1898," and "Annual American Catalogue, 1897," were issued as usual, and A. Growoll drew up a "Book Trade Bibliography in the United States in the Nineteenth Century." In the Thumb-Nail Series selections from Franklin's "Poor Richard's Almanack" were edited by Benjamin E. Smith, and Dickens's "Crick-et on the Hearth" had an introduction by Joseph Jefferson.

Education.—From the authority of Hon. W. T. Harris in matters of education there is no appeal, and his latest work upon the "Psychologic Foundations of Education," an attempt to show the genesis of the higher faculties of the mind, appeared in the "International Educational Series," of which it formed No. 37. Another issue of the same series was "The Study of the Child," a brief treatise on the psychology of the child, with suggestions for teachers, students, and parents, by A. R. Taylor, and from Louise E. Hogan we had "A Study of a Child," illustrated with over 500 original drawings by the child; "The Development of the Child" was also studied by Nathan Oppenheim. "New Methods of Education" were dwelt upon by J. Liberty Tadd. "The Meaning of Education, and Other Essays and Addresses" of Nicholas Murray Butler were collected into a volume, as were essays and addresses of President Charles W. Eliot, of Harvard, upon "Educational Reform." "University Problems in the United States" were discussed by President Daniel Coit Gilman, of Johns Hopkins University, and "The Evolution of the College Student" was briefly traced by President William De Witt Hyde, of Bowdoin. "Ideals and Programmes" in education, by Jean L. Gowdy, may be mentioned with Nora Archibald Smith's speculations as to "The Children of the Future." "The History of the Lowell Institute" was written by Harriette Knight Smith, and "The Story of Oberlin, the Institution, the Community, the Idea, the Movement," was told by Delavan D. Leonard, D. D. Among text-books are to be noted "The Automatic Instructor," a practical system for home study, by G. W. Read; "An Elementary Course in the Integral Calculus," by Daniel Alexander Murray, in the "Cornell Mathematical Series"; a "Course of Study in History and Literature," with suggestions and directions, by Emily J. Rice; "A Three Years' Preparatory Course in French," by Prof. Charles F. Kroeh; "Applied Physiology," for advanced grades, by Frank Overton, M. D.; a "Natural Advanced Geography," by Jacques W. Redway and Russell Hinman; a "Physical Geography," by William Morris Davis and William H. Snyder; "The New Century Speaker," for school and college, by Henry Allyn Frink; and "The Strength of Materials," a text-book for manual-training schools, by Mansfield Merriman.

Fiction.—Seven hundred and twenty-four new novels were published in 1898, and 181 new editions of novels, against 713 new books and 156 new editions in 1897. The number of books by American authors, including new editions, was exactly the same for both years, viz., 358. While many were excellent and had a large sale, not one attained striking prominence.

William Dean Howells told "The Story of a Play," and Henry James, in addition to his novel "In the Cage," published two short stories in one volume, exemplifying the power of "The Two Magics" of good and evil. "Red Rock," a chronicle of reconstruction, by Thomas Nelson Page, was widely read as illustrative of conditions prevalent in the South to-day; "Caleb West, Master Diver," was the hero of Francis Hopkinson Smith's latest story; and "The Adventures of François" were related by Dr. S. Weir Mitchell with much of the charm that char-

acterized "Hugh Wynne," and with painstaking accuracy of description and delineation. Harold Frederic's novel of "Gloria Mundi" was issued in book form, and from his facile pen we had also "The Deserter, and Other Stories," a book of two wars of widely different periods of time. Captain Charles King wrote "Ray's Recruit" and a "Wounded Name"; Arlo Bates, "The Puritans," of modern Boston; Albion W. Tourgée, "The Man who Out-lived Himself"; and Nathan Haskell Dole, "Omar the Tent-Maker," a romance of old Persia. Frank R. Stockton was amusing as ever in "The Girl at Cobhurst" and in describing "The Associate Hermits," while Paul Leicester Ford was responsible for "Tattle Tales of Cupid." John Kendrick Bangs published "Peeps at People" of distinction, taken by a typical female "interviewer" for the newspapers, and made us familiar with "Ghosts I have Met and Some Others." Richard Harding Davis laid the scene of his novel, "The King's Jackal," in Tangier, and "From the Other Side" was the title of stories of transatlantic travel by Henry B. Fuller (Stanton Page). Bret Harte told "Tales of Trail and Town" and "Stories in Light and Shadow," and "Tales of the Home Folks in Peace and War" came from Joel Chandler Harris. Mrs. Margaret W. C. Deland published a series of "Old Chester Tales," "The Loves of the Lady Arabella" were detailed by Molly Elliot Seawell; "The Duket Sperret" and the difficulties it created in a family among the Cumberland mountains of Tennessee was the theme of Sarah Barnwell Elliott; "Penelope's Progress" through Scotland was traced by Kate Douglas Wiggin (Mrs. Riggs); "A Revolutionary Love Story" and "The High Steeple of St. Chrysostom's" were the titles of two stories bound in one volume, by Mrs. Ellen Olney Kirk (Henry Hayes); while from Alice French (Octave Thanet) we had "The Heart of Toil" and "A Slave to Duty, and Other Women," both books of short stories, the first dealing, as its name indicates, with the relations between labor and capital. The names of well-known women are to be found on the title-pages of many of the novels of the year. Mrs. Sarah Pratt McLean Greene wrote amusingly of "The Moral Imbeciles"; Eliza Orne White's hero was distinguished as "A Lover of Truth"; "At the Sign of the Silver Crescent" was the latest from Mrs. Helen Choate Prince; Ellen Glasgow, the avowed author of "The Descendant," the anonymous novel of 1897 which aroused favorable comment, followed it with "Phases of an Inferior Planet"; Julia Magruder published two novels, "Struan" and "A Realized Ideal," while three represent the last work of Maria Louise Pool, entitled respectively "The Red Bridge Neighborhood," "A Golden Sorrow," and "Friendship and Folly." "Rosin the Beau" was a sequel to "Melody" and "Marie," by Mrs. Laura Elizabeth Richards, from whom we had also a sketch of "Love and Rocks." Mrs. Constance Cary Harrison (Mrs. Burton Harrison) traced the evolution of "Good Americans"; "A Great Love" was the theme of Mrs. Clara Louise Root Burnham, who published also "Latimer: A Story of Casco Bay," and "A Romance of Summer Seas" was the title of an old-fashioned love story by Varina Anne Jefferson Davis. Mrs. Harriet Prescott Spofford told "Priscilla's Love Story"; "Madam of the Ivies" had her affairs finally adjusted by Elizabeth Phipps Train. "New York" was the suggestive title of a novel by Edgar Fawcett, and Julian Ralph was responsible for the flutterings of "An Angel in a Web." Volume I of a new library edition of the works of Edward Everett Hale contained "The Man without a Country, and Other Stories" of that well-known author, and among books more or less historical in char-

acter are to be mentioned "For Love of Country," a story of land and sea in the days of the Revolution, by Cyrus Townsend Brady; "A Yankee Volunteer," of the same period, by M. Imlay Taylor; "An Island Heroine," the story of a daughter of the Revolution, by Mary Breck Sleight; "The Continental Dragoon," a love story of Philipse Manor House in 1778, by Robert Neilson Stephens; "The Count's Snuff Box," a romance of Washington and Buzzard's Bay in the War of 1812, by George R. R. Rivers, and "A Herald of the West," during the same period, by Joseph A. Altscheler, the author of "A Soldier of Manhattan" and "The Sun of Saratoga," who published also a sequel to "The Rainbow of Gold," entitled "The Hidden Mine." "A Puritan Wooing," a tale of the great awakening in New England, was strongly told by Frank S. Child, and "Ye Lyttle Salem Maide," by Pauline Bradford Mackie, was of course a story of witchcraft. "Prisoners of Hope" was the title of a tale of colonial Virginia by Mary Johnston, and "The Gospel Writ in Steel," a story of the American civil war, by Arthur Paterson. "General Nelson's Scout" fought in the same conflict, according to Byron A. Dunn, and "In the Navy; or, Father against Son," was a story of naval adventures in 1861-'65, by Warren Lee Goss. "In the Depths of the First Degree" was a romance of the battle of Bull Run, by James Doran, and "Alicia," a tale of the American navy, by Alexis. Clinton Scollard returned to the days of Gian Galeazzo Visconti, the Great Viper, for his romance of "A Man at Arms"; and William H. Johnson brought to light and edited a sixteenth century chronicle entitled "The King's Henchman." "Rembrandt" was the hero of Walter Cranston Larned; "The Love of the Princess Alice," by Frank Kimball Scribner, carried us back to the Thirty Years' War, and the same author assisted Charles S. Bentley in the composition of "The Fifth of November." "Cartagena; or, The Lost Brigade" was a story of heroism in the British war with Spain, 1740-'42, by Charles W. Hall. Herman T. Koerner illustrated his own story of the Uplands of Baden in the seventeenth century, which was entitled "Beleaguered," and Italian life forty years ago was described in "The Twin Sisters of Martigny," by Joel Foote Bingham, D. D. The Chilian war of 1818 formed the background for Archer Philip Crouch's novel, "Señorita Montemar." "I am the King," by Mrs. Sheppard Stevens, was a tale of the Crusaders, and "In King's Houses" another of the reign of Queen Anne, by Mrs. J. C. R. Dorr, while "Her Majesty the King" was the title of a romance of the harem done into American from the Arabic by James Jeffrey Roache. In cheerful contrast was "David Harum," distinctively a story of American life, by Edward Noyes Westcott, strong and wholesome, original and tender; and from Madeleine Lucette Ryley we had another pen portrait of "An American Citizen." Other stories of a decidedly local flavor were "Penelope; or, Among the Quakers," by Richard H. Thomas, M. D.; "A Cape Cod Week," by Annie Eliot Trumbull, who wrote also "Rod's Salvation"; "Dwellers in Gotham," by Annan Dale; "The Gray House of the Quarries," on the Hudson river, by Mary Harriott Norris; "Jefferson Wildrider," by Elizabeth Glover; "Pearce Emerson's Will," by the gentle and genial Richard Malcolm Johnston; "Stories of the Cherokee Hills" and "Stories of Indiana," by Maurice Thompson; "The Spirit of Sweetwater," by Hamlin Garland; "The Blue Ridge Mystery," by Caroline Martin; "The Waters of Caney Fork," a romance of Tennessee, by Opie P. Read (Arkansas Traveler), who wrote also "A Yankee from the West"; "Cis Martin; or, Furriers in the Tennessee Mountains," by Louise R.

Baker; "Cinch, and Other Stories," by Miss Will Allen Dromgoole; "Under the Ban," a South Carolina romance, by Teresa H. Strickland; "Fortune's Tangled Skein" and "On the Winning Side," by Mrs. Jeannette R. H. Walworth; "Florida Alexander: A Kentucky Girl," by Eleanor Talbot Kinkead; "Juleps and Clover," by M. Vaughan Wilde; "At You-All's House," a Missouri nature story, by James Newton Baskett; "An Idyl of the Wabash, and Other Stories," by Anna Nicholas; "The M. M. C.," a story of the great Rockies, by Charlotte M. Vaile; "Told in the Rockies," by A. Maynard Barbour; "The Black Curtain," by Mrs. Flora Haines Loughhead; "Way Out Yonder," the romance of a new city on Puget Sound, by William Lightfoot Visscher; "Moran of 'The Lady Letty,'" a story of adventure off the California coast, by Frank Norris, and four other stories of which California is the scene, viz.: "An Elusive Lover," by Virna Woods; "Within White Walls," by Allan Emory; "In Social Quicksands," by Mrs. Laban E. Smith; and "As a Man Lives," by Mary C. Ferris. "A Sister to Evangeline," by Charles George Douglas Roberts, purported to be the story of Yvonne Lamourie, and how she went into exile with the villagers of Grand Pré, and another Acadian romance was "Rose à Charlotte," by Marshall Saunders, the author of "Beautiful Joe." "The Señora's Granddaughters," by Mrs. Janie Pritchard Duggan, was a tale of modern Mexico; Mrs. Schuyler Crowninshield published "Where the Trade Wind Blows: West Indian Tales," and "Latitude 19," a romance of the same region, and George Cunyngham Cunningham, "Tales from the Land of Mañana." "Forest Lily," by James Donald Dunlop, D. D., had its scene laid in northern Ontario. "A Bride of Japan" was by W. Carlton Dawe, and "Madame Butterfly," a collection of Japanese stories, we owe to John Luther Long. Louis Becke and Walter Jeffrey were the joint authors of "The Mutineer," a romance of Pitcairn Island, and "Hassan, a Fellah," was a romance of Palestine, by Henry Gillman. "In Gold We Trust," by A. H. Frankel, pictured Ghetto life in America, as "Out of Mulberry Street," by Jacob A. Riis, did tenement life in New York city. Books which found readers were "The Marbeau Cousins," by Harry Stillwell Edwards; "Regret of Spring: A Love Episode," by Pitts Harrison Burt; "Unspotted from the World," by Mary Stewart; "As Having Nothing," by Hester Caldwell Oakley; "Miriam," by Gustav Kobbé; "The Judge," by Mrs. E. W. Peattie; "The Dull Miss Archinard," by Anne Douglas Sedgwick; "Annice Wynkoop, Artist," by Adelaide L. Rouse; "Phoebe Tilson," by Mrs. Frank Pope Humphrey; "The Celebrity: An Episode," by Winston Churchill; "Miss Theodora," by Helen Leah Reed, a story of the West End of Boston; "Fortuna: A Story of Wall Street," by James Blanchard Clews; "One of the Pilgrims," a bank story, by Anna Fuller; "Four Months After Date," a business romance, by Randall Irving Tyler; the "Tale of an Amateur Adventuress," by Elizabeth Kingsbury; "Warren Hyde," by Helen Riemensnyder; "Two Summer Girls and I," by Theodore Burt Sayre; "Her Ladyship's Elephant," by David Dwight Wells; "A Member of Congress," by William Wentworth; "An Experimental Wooing," by Tom Hall; and "A Country Tragedy," by F. Cameron Hall. W. G. Zeigler maintained "It was Marlowe." The woman question is dealt with in "The Gospel of Freedom," by Robert Herrick; "The Heterodox Marriage of a New Woman," by Mary Ives Todd; and "A Champion in the Seventies," by Edith A. Barnett. Divorce was the theme of "Bound by the Law," by Kate Tyson Marr, and "Let No Man Put Asunder," by Josephine Marié, presumably held the

same ground. "The Letter and the Spirit," by Cora Maynard, revealed the hollowness of society and discussed its evils. Charles Peale Didier, the author of "Twixt Cupid and Croesus" and "R. S. V. P.," asked the leading question, "Would Any Man?" Thomas Cooper De Leon published "An Innocent Cheat" and "A Novelette Trilogy"; "The Embassy Ball," by Virginia Rosalie Cox, was distinctively a novel of society life; and "The Title-Mongers," by William Farquhar Payson, was sufficiently suggestive of the plot. "She Who Will Not When She May," by Eleanor G. Walton, conveyed a useful lesson; "Waiting for the Signal," by Henry O. Morris, outlines a socialistic ideal of government, and the righting of the wrongs of labor; "The Money Captain," by Will Payne, was concerned chiefly with questions of finance in their bearing upon the administration of municipalities. "The Lost Word" was a Christmas legend of long ago, told by Henry Van Dyke, Jr., and "The Day Breaketh," by Fanny Alricks Shugert, belonged to the early days of Christianity; "Javan Ben Seir," by Walter Kennedy, was a story of olden Israel, as was also "Lost Prince Almon," by Louis Pendleton. "The Son of Perdition," by Dr. William A. Hammond, found a new motive for the sin of Judas Iscariot, and from Sarah M. Burnham we had "The Roman's Story of the Time of Claudius I." Other novels having a more or less religious tone were "Victor Serenus," a story of the Pauline era, by Henry Wood; "Enoch, the Philistine," by Le Roy Hooker; "Pro Christo," the story of a royal Huguenot, by Mrs. Hattie Arnold Clark; "Toward the Glory Gate," a story of soul growth, by Julia McNair Wright; "Petronilla, the Sister," by Mrs. Emma H. Thayer; and "Hernani the Jew," a story of Russian oppression, by A. N. Homer. "Lucy Broad's Choice," by Mrs. A. M. Pickford, and "Philip Barton's Secret," by Mrs. May Anderson Hawkins, may be classed together, as may "Lone Point: A Summer Outing," by Grace Livingstone Hill; "Naomi," by Chara Broughton Conant; "The Story of Marthy," by S. O. H. Dickson; and "Miss Erin," by Mrs. M. E. S. Blundell. Temperance was the theme of "Beoni the Sphinx," by Ira L. Jones; "The Secret of the Cañon," by Rev. Adam Stump, was one of the "John Rung Prize Series," and told a true story in narrative form. Books of adventure include "Crooked Trails," written and illustrated by Frederic Remington; "Frontier Stories," by Cy Warman; "The General Manager's Story," by Herbert E. Hamblen (F. Benton Williams); "Under the Rattlesnake Flag," by F. A. Costello; "Four for a Fortune," by Albert Lee; and "Exiled for Lèse Majesté," by James Travis Whittaker, M. D. "In the Sargasso Sea," by Thomas A. Janvier, introduced us into the realm of the marvelous, to which belong "The War of the Worlds," by Henry G. Wells; "Armageddon," a tale of love, war, and invention in the future, by Stanley Waterloo; "The Lost Province: How Vansittart came Back to France," by Louis Tracy, intended as a sequel to "An American Emperor"; "The Recovered Continent," purporting to be a tale of the Chinese invasion yet to be, by Oto Mundo; "The Sack of Monte Carlo," by Walter Frith; "The Lost City," by Joseph E. Badger, Jr.; "The White Princess of the Hidden City," by David Lawson Johnstone; "The Awakening of Noahville," by Franklin H. North; "The Prince of Graves," by Alfred C. Fleckenstein; and "The Abduction of Princess Chriemhild," by Leroy F. Griffin, assisted by two friends. Mrs. Gertrude Franklin Atherton (Frank Lin) published no less than three works of fiction, "The Californians," "American Wives and English Husbands," and "The Valiant Runaways," the last a book for boys;

"Billy Hamilton" was the only venture of Archibald Claverling Gunter; while "Lost Man's Lane" was the title of a second episode in the life of Amelia Butterworth, by Mrs. Anna Katharine Green Rohlf. Richard Henry Savage wrote "In the Shadow of the Pyramids" during the last days of Ismail Khedive, and "In the Swim," a story of currents and undercurrents in gayest New York; Max Pemberton, "The Phantom Army" and "Kronstadt," the latter a story of Russian life; Clinton Ross (R.), "A Trooper of the Empress" and "Bobbie McDuff"; Linn Boyd Porter (Albert Ross) provided "A New Sensation"; and "Merivale," by James Robertshaw, presented phases of Southern life with sensational incidents. Another detective story was "A Prince of the Blood," by Julius A. Lewis; "Gemma" was the story of a model, by Alexander McArthur; Lucy France Pierce told the mining story of "The White Devil of Verde"; Clayton Lemars betrayed "The Confessions of an American Citizen"; and Louis Lombardo described "The Vicious Virtuoso." "Cross Trails" was a Spanish-American novel, by Victor Waite. Other thrilling stories were "God's Pay Day," by Edgar Clifton Bross, and "Little Ethel; or A Sprig of Sumac," by Philip H. Smith, while novels of a psychologic turn were "As the Hart Panteth," by Hallie Erminie Rives; "Mr. De Lacy's Double," by Francis Eugene Storke; "The Mind Reader," by L. M. Phillips, M. D.; and "Word for Word and Letter for Letter," by Anthony J. Drexel Biddle. "My Invisible Partner," by Thomas S. Denison, dealt largely with the supernatural, and "Doomsday," by Crabtree Hemenway, was a weird romance, while "Houses of Glass," by Wallace Lloyd, M. D., purported to be a philosophical one. In conclusion may be mentioned: "A Pedigree in Pawn," by Arthur H. Veysey; "With Gyves of Gold," by Henry Athey and A. Herbert Bowers; "Two Odd Girls; or, Douglas Rock's Secret," by John A. Peters; "Flames and Ashes," by Alice de Carret; "Rondo," by Cyril Norman; "Maylou," by Frances Raymond; and Robert W. Chambers's two books, "Ashes of Empire" and "The Haunts of Men." "Via Lucis," while its author, Kassandra Vivaria, was a young Italian girl, was written in English and published first in America.

Volumes of short stories published during the year bore the names of some of our best writers on their title-pages. "The Open Boat, and Other Tales of Adventure," were by Stephen Crane; "Silence, and Other Stories," by Mary E. Wilkins; "Moriah's Mourning, and Other Half-hour Sketches," by Ruth McEnery Stuart; "The Woodley Lane Ghost, and Other Stories," by Mrs. Madeleine Vinton Dahlgren; "Comedies and Errors," by Henry Harland; "The Queerest Man Alive, and Other Stories," by Rev. George Hughes Hepworth; and "Southern Stories," by George Cary Eggleston. "Folks from Dixie" were described by the negro poet Paul Lawrence Dunbar; W. D. Howells supplied a prefatory sketch to "The Blind Man's World, and Other Stories," of Edward Bellamy; "Dumb Foxglove, and Other Stories," were by Annie Trumbull Slosson; "A Maid of the Frontier" was the title of nine short stories by Henry Spofford Canfield, and "The Sea of Love," of ten, by Walter Phelps Dodge. "The Man who Worked for Collister," by Mary Tracy Earle, and "The Instinct of Stepfatherhood," by Lillian Bell, were the titles of collections of short stories, and from Agnes Blake Poor we had "Boston Neighbours in Town and Out"; from Charles Belmont Davis, "The Borderland of Society"; "The Prodigal's Daughter, and Other Tales," came from Lelia Hardin Bugg; "The Hundred, and Other Stories," from Gertrude Hall; and "Some Marked Passages,"

and Other Stories," from Jeanne G. Pennington. "Told in the Twilight" was the title of stories told and illustrated by Blanche McManus; "Tales of the City Room," by Elizabeth G. Jordan, relate to newspaper life; and Mabel Clare Ervin detailed adventures "As Told by the Type-writer Girl." "The Paper Boat" was a collection of yachting stories, by Palinarus; W. W. Jacobs, the author of "Many Cargoes," gave us "More Cargoes"; and "Spun Yarn" was the title of sea stories by Morgan A. Robertson. "Rodman the Boat-steerer, and Other Stories," were by Louis Becke, and "Fantastic Fables" by Ambrose Bierce. "The Imported Bridegroom, and Other Stories of the New York Ghetto," came from Abraham Cahan; James Gardner Sanderson contributed "Cornell Stories," and David Gray "Gallops." "Tales from McClures: War," contained true stories of camp and battlefield, by Gen. Nelson A. Miles, Musgrove Davis (Charles O. Shepard), T. J. Mackey, and others. "The Eerie Book" was edited by Margaret Armour, and contained tales of the supernatural from various writers of distinction.

Fine Arts.—"The Column and the Arch" was the title of essays on architectural history by William Pitt Preble Longfellow. M. S. Emery told us "How to Enjoy Pictures," a special chapter on pictures in the schoolroom being contributed by Stella Skinner. A book of elementary instruction in "Water-Color Painting" was illustrated by the author, Grace Barton Allen, and "In Nature's Image" was the title of chapters on pictorial photography by W. I. Lincoln Adams, and Julius Klinger offered 100 "Sketches for Lithographers and Designers," in modern style. Henry E. Krehbiel was an authority upon "Music and Manners in the Classical Period," and Hannah Smith told of "Music: How it came to be what it is." William James Henderson asked "What is Good Music?" offering suggestions to persons desiring to cultivate a taste in musical art. "Book-Plates—Old and New" were the theme of J. A. Gade. "The Training of a Craftsman," by Frederic Miller, was illustrated by many workers in the art crafts. Among illustrated volumes may be mentioned "Venice of To-day," described and pictured by F. Hopkinson Smith; "Lest we Forget," army and navy pictures of the late war with Spain; "Cartoons of our War with Spain," by Charles Nolan; "The Life of Our Lord in Art," by Estelle M. Hurl; "Angels in Art," by Clara Erskine Clement Waters; "Love in Art," by Mary Knight Potter; Hamilton Wright Mabie's "In the Forest of Arden," illustrated by Will H. Low; a superb volume of "Sketches and Cartoons," by Charles Dana Gibson, containing 84 of his best; "Drawings" of Charles H. Johnson, A. de Smith Thulstrup, W. Granville, and others, in four volumes; "Ten Drawings in Chinatown," by Ernest C. Peixotto, with certain observations by Robert Howe Fletcher; and an *édition de luxe* of "A God-Child of Washington: A Picture of the Past," by Katharine Schuyler Baxter. "The Homeric Palace" was the subject of a study by Norman Morrison Isham; Henry C. Lahee commemorated "Famous Singers of To-day and Yesterday"; and "Miss America," by Alexander Black, contained pen and camera sketches of the American girl. Among illustrations of familiar books by standard authors is to be noted "The Pilgrim's Progress," in large folio edition, with 120 original designs by three brothers, George Wooliscroft Rhead, Frederick Rhead, and Louis Rhead. The Pawnee edition of Irving's "Adventures of Captain Bonneville" appeared in two volumes, and a holiday edition of Lew Wallace's "Fair God" was issued. "Life's Book of Animals" was composed of draw-

ings by E. W. Kemble, T. S. Sullivant, Henry Mayer, and others, and from E. W. Kemble we had three characteristic volumes, "The Billy Goat and Other Comicalities," "Comical Coons," and "A Coon Alphabet." Charles Henry Hart published a work entitled "Browere's Life Masks of Great Americans."

General Science.—"The Sphere of Science," by Frank Sargent Hoffman, made a study of the nature and method of scientific investigation, and Henry White Warren published popular studies "Among the Forces" of Nature. "Matter, Energy, Force, and Work" was a plain presentation of fundamental physical concepts and of the vortex-atom and other theories, by Silas Whitcomb Holman, and Arthur E. Chapman compiled "Every-Day Science" for the "Epworth League Reading Course." A second revised edition was issued of Edmond Kelly's work upon "Evolution and Effort," and Prof. David Starr Jordan published "Footnotes to Evolution," a series of popular essays on the evolution of life, with supplemental essays by Edwin Grant Conklin, Frank Mace McFarland, and James Perrin Smith. Prof. Nathaniel Southworth Shaler traced "Outlines of the Earth's History" in a popular study in physiography; a new revised edition was issued of Prof. Joseph Le Conte's "Compend of Geology"; and Prof. Israel Cook Russell contributed "Rivers of North America," a reading lesson for students of geography and geology, to the "Science Series," another issue of which was "Earth Sculpture," by J. Geikie. "Cave Regions of the Ozarks and Black Hills" were described by Luella Agnes Owen, and polar papers, under the title of "The Great Polar Current," were published by Henry Mellen Prentiss. "Penikese: A Reminiscence by one of its Pupils," was given to the public by Frank H. Lattin. Vol. I of "Annals" of Lowell Observatory appeared during the year; David P. Todd published "A New Astronomy for Beginners." "The Earth and the Sky" was intended as a primer of astronomy for young readers, by Edward S. Holden, somewhat in line with which was "Astronomy: The Sun and His Family," by Mrs. Julia MacNair Wright. "The Story of Life in the Seas" was written for "Appleton's Library of Useful Stories," by Sidney J. Hickson. "The Living Organism" was an introduction to the problems of biology, by Alfred Earl. "Four-Footed Americans," by Mabel Osgood Wright, was edited by Frank M. Chapman and illustrated by Ernest Seton Thompson, who published a series of biographies of "Wild Animals I have known," beautifully illustrated with 200 drawings, not exactly designed as a text-book of natural history, but utilizing information which has come to him as naturalist to the Canadian Government of Manitoba, and investing it with an almost human interest. "The Animal World: Its Romances and Realities," was compiled and edited by Frank Vincent as a reading book of zoölogy, and "Familiar Life in Field and Forest," by Ferdinand Schuyler Matthews, was devoted to the animals, birds, frogs and salamanders. Clara Dillingham Pierson was at home "Among the Forest People"; Wesley Mills investigated the "Nature and Development of Animal Intelligence"; and Edward Payson Evans treated of "Evolutional Ethics and Animal Psychology." "Mollusks of the Atlantic Coast of the United States, South to Cape Hatteras," were treated by Austin C. Apgar, and from the same authority we had also "Birds of the United States East of the Rocky Mountains," a manual for the identification of species in hand or in the bush. Dan Giraud Elliot published a superb volume upon "The Wild Fowl of the United States and British Possessions; or, The Swan, Geese, Ducks, and Mergansers of

North America"; William E. D. Scott illustrated from original photographs his "Bird Studies," which gave an account of the land birds of Eastern North America; "Birds of Village and Field" was a bird book for beginners, by Florence A. Merriam; Nellie Blanchan (Mrs. Nellie Blanchan (De Graff) Doubleday) in "Birds that Hunt and are Hunted" gave life histories of 170 birds of prey, game birds, and waterfowls, which had an introduction by Coquina (G. O. Shields). P. M. Silloway published "Sketches of some Common Birds"; H. E. Parkhurst told "How to Name the Birds"; Leander S. Keyser added "News from the Birds" to the "Natural History Series" of "Appletons' Home Reading Books"; "Crusoe's Island" was a bird-hunter's story, told by F. A. Ober, for the same; and "Bird World" was a bird book for children, by J. H. Stickney and Ralph Hoffman. The first of eight sections to contain "Moths and Butterflies of the United States East of the Rocky Mountains," by Sherman F. Denton, was issued, and from W. J. Holland, D.D., we had "The Butterfly Book," a popular guide to the butterflies of North America, with 48 plates in color photography, and many text illustrations. George W. and Elizabeth G. Peckham investigated "The Instincts and Habits of Solitary Wasps." Vol. XI of the 12 which will contain "The Silva of North America," by Charles Sprague Sargent, was issued; Liberty Hyde Bailey published "Lessons With Plants" and also a "Sketch of the Evolution of our Native Fruits." A collection of essays on "Living Plants and their Properties," by Joseph C. Arthur and Daniel Trembly MacDougal, made a volume full of interest, and from Charles Reid Barnes we had "Plant Life considered with Special Reference to Form and Function." "First Lessons with Plants" were an abridgment from Liberty Hyde Bailey's "Lessons with Plants"; George Francis Atkinson wrote an "Elementary Botany"; Mrs. Julia MacNair Wright, "Botany: The Story of Plant Life"; Clarence Moores Weed, "Seed Travellers," studies of the methods of dispersal of various common seeds; Volney Rattan, "Exercises in Botany for the Pacific States" and a "West Coast Botany"; and Mary Elizabeth Parsons, "The Wild Flowers of California," intended to complement Mrs. Dana's instructions "How to Know the Wild Flowers." Thomas Taylor, M. D., published a "Student's Handbook of Mushrooms of America," showing those edible and poisonous. "The Discharge of Electricity through Gases" was the theme of lectures delivered by Joseph J. Thomson on the occasion of the sesqui-centennial of Princeton University. "The Telephone," by William J. Hopkins, traced outlines of the development of transmitters and receivers; "Magnets and Electric Currents" was an elementary treatise for the use of electrical artisans and science teachers, by John Ambrose Fleming; and James Edwin Houston was the author of "A Pocket Dictionary of Electrical Words, Terms, and Phrases." A "Text-book of Physical Chemistry" was written by Prof. Clarence L. Speyers for self-instruction as well as class-room use; a new edition of "A Manual of Inorganic Chemistry," by Thomas E. Thorpe, in two volumes, was practically a new work, the original being wholly recast and for the most part rewritten. Ernest A. Congdon offered "A Brief Course in Qualitative Analysis"; E. T. Ladd, "A Manual of Quantitative Chemical Analysis"; and "Outlines of Industrial Chemistry" was a text-book for students, by Frank Hall Thorp. "The Story of Photography" was told briefly for "Appletons' Library of Useful Stories," by Alfred T. Story. An "Introduction to the Study of North American Archaeology" was an instructive and exhaustive work by Cyrus Thomas; "Creation Myths

of Primitive America," in relation to the religious history and mental development of mankind, were examined by Jeremiah Curtin; and "Traditions of the Thompson River Indians of British Columbia" were collected by James Teit and published as Vol. VI of the "Memoirs of the American Folk-Lore Society," with an introduction and notes by Frank Boas. "Folk-Stories of the Northern Border" were collected by Frank D. Rogers, and "The Magic of the Horseshoe," with other folklore notes, came from the pen of Dr. Robert Means Lawrence. "Bird-Gods of Ancient Europe," by Charles de Kay, late consul-general of Berlin, contained much curious and unusual information, and was illustrated by George Wharton Edwards. "The Smithsonian Institution, 1846-1896," edited by Prof. George Brown Goode, covered the history of its first half century of existence, and here may be mentioned a second edition of "A Catalogue of Scientific and Technical Periodicals, 1665-1895," by Henry Carrington Bolton, published by the Smithsonian.

To intellectual science belong "Outlines of Descriptive Psychology," a text-book of mental science for colleges and normal schools, by Prof. George Trumbull Ladd; "Essentials of Psychology," by Colin S. Buell; "The Psychology of Suggestion," a research into the subconscious nature of man and society, by Boris Sidis, which had an introduction by William James; "A Primer of Psychology," by Edward Bradford Titchener; "Truth and Error; or, The Science of Intellection," by Major John W. Powell; and "The Story of the Mind," told by James Mark Baldwin for "Appletons' Library of Useful Stories." "The Problems of Philosophy" were rehearsed by John Grier Hibben in an introduction to the study of philosophy; "Theories of the Will in the History of Philosophy" were gone over by Archibald Alexander; Alexander Sutherland traced "The Origin and Growth of the Moral Instinct"; "Studies of Good and Evil" was the title of a series of essays upon problems of philosophy and of life by Josiah Royce; and from D. P. Hatch we had two volumes, "Some Philosophy of the Hermetics" and "Some More Philosophy of the Hermetics." "The Metaphysics of Balzac, as Found in 'The Magic Skin,' 'Louis Lambert,' and 'Seraphita,'" were discussed by Ursula N. Gestefeld.

History.—Although, as a nation, we were engaged in making history during the year 1898, we yet found time to produce many historical books of value. "A Constitutional History of the American People, 1776-1850," by Francis Newton Thorpe, in two volumes, traced the evolution of our Government during the period named, and from Albert Bushnell Hart we had the second volume of "American History told by Contemporaries," covering the "Building of the Republic, 1689-1783." "Select Documents illustrative of the History of the United States, 1776-1861," were edited with notes by William Macdonald, and "The First Republic in America" was an account of the origin of this nation written from the records then (1624) concealed by the council, rather than from the histories then licensed by the crown, for which we were indebted to Alexander Brown. The latest phases of the controversy over "The Voyages of the Cabots" were published in book form by the author, Samuel E. Dawson, from the "Transactions of the Royal Society of Canada for 1897"; Henry Harris contributed a "Diplomatic History of America, 1452-1494"; William Elliot Griffis wrote of "The Pilgrims in their Three Homes—England, Holland, America," for the "Riverside Library for Young People," and also added to "The Romance of American Colonization: How the Foundation Stones of our History were Laid"; "Heroes of the Middle West:

The French," were the theme of a booklet by Mrs. Mary Hartwell Catherwood, intended for young people; and "The Colonies," by Helen Ainslie Smith, was edited by S. T. Dutton. In the "Harvard Historical Studies" "The Provincial Governor in the English Colonies of North America" was the theme of Evarts Boutell Greene. Two handsome volumes contain "The Story of the Revolution," by Henry Cabot Lodge, the illustrations of which were nearly 200 in number; William S. Stryker made studies of "The Battles of Trenton and Princeton"; and Mary Shelley Pechin compiled the "Anniversary Book of the American Revolution." "A French Volunteer of the War of Independence," the Chevalier de Pontgibaud, gave a striking view of the men and times, as translated and edited by Robert Douglas. Edward Channing wrote "A Student's History of the United States"; Wilbur F. Gordy, "A History of the United States, for Schools"; Edward S. Ellis "A History of our Country"; and a new revised and enlarged edition was issued of "The Story of America," by Hezekiah Butterworth, reviewing, in particular, the attitude of the United States toward the liberation of Cuba. James Morton Callahan considered "The Neutrality of the American Lakes and Anglo-American Relations" in the "Johns Hopkins University Studies." An illustrated edition of John Fiske's history of "The Beginnings of New England" was issued, and to early days belonged a "History of Brulé's Discoveries and Explorations, 1610, 1626," by Consul Willshire Butterfield, a narrative of the discovery by Stephen Brulé of Lakes Huron, Ontario, and Superior, and of his explorations (the first made by civilized man) of Pennsylvania and western New York, etc., accompanied with a biographical notice. "A Quaker Experiment in Government," by Isaac Sharpless, traced the connection of this religious sect with the government of Pennsylvania from 1682 to 1756; Charles Orr edited with notes and an introduction the "History of the Pequot War"; a reprint of the contemporary accounts by Mason, Vincent, Gardner, and Underhill, from the "Collections of the Massachusetts Historical Society"; and Vols. X to XXXII inclusive were issued of "The Jesuit Relations and Allied Documents," edited by Reuben Gold Thwaites. "Red Patriots," by Charles H. Coe, contained the story of the Seminoles, and "Indians and Pioneers," by Blanche E. Hazard, was intended as a historical reader for the young. "Leading Events of Wisconsin History," by Henry E. Legler, contained the story of the State; Royall Bascom Smith wrote a "History of Virginia" for schools; a new edition was published of "Florida: Its History and its Romance," by George R. Fairbanks; and "West Florida and its Relations to the Historical Cartography of the United States," was briefly considered by Henry E. Chambers in the "Johns Hopkins University Studies," another issue of which was "The Transition of North Carolina from Colony to Commonwealth," by Enoch Walter Sikes. "The Secession and Reconstruction of Tennessee" was the subject of a dissertation submitted by James Walter Fertig in candidacy for the degree of doctor of philosophy of the University of Chicago; Albert Bushnell Hart contributed an introduction to "The Underground Railroad from Slavery to Freedom," by Wilbur H. Sievert; "The Liberty and Free Soil Parties in the Northwest" were the theme of the Toppan prize essay of 1896, by Theodore Clarke Smith, published in the "Harvard Historical Studies"; and from William Archibald Dunning we had a collection of "Essays on the Civil War and Reconstruction, and Related Topics." Part II of "The Origin and Growth of the English Constitution," as traced by Hannis Taylor, covered "The Aftergrowth of the Constitution," and brought us down

to the legislation of the last few years. Two volumes were devoted by Charles McLean Andrews to the "Historical Development of Modern Europe from the Congress of Vienna to the Present Time," and from Ferdinand Schwill we had a "History of Modern Europe" with maps and genealogical tables. "Twenty Centuries of English History" were condensed by James R. Joy for the "Chautauqua Reading Circle Literature." "The Rise of the Dutch Republic: The Student's Motley," was the title of a condensation by William Elliot Griffis of the work of that historian, accompanied with an introduction and notes, and with a sketch of the Dutch people from 1584 to 1897. "Contemporary American Opinion of the French Revolution" was the subject of an essay by Charles Downer Hazen. "The Awakening of a Nation: Mexico of To-day," was the significant title of Charles Fletcher Lummis's book upon the recent development of that republic. "Hawaii's Story, by Hawaii's Queen," Liliuokalani, was an autobiographical narrative of her relations to the people of those summer islands, while "Hawaii and a Revolution," by Mary H. Krout, contained the personal experiences of a correspondent in the Sandwich archipelago during the crisis of 1893 and subsequently. "The Spaniard in History" was a terrible and truthful indictment, by Rev. James C. Fernald, of the nation with which we were engaged in conflict during the year. Moses Bernard chronicled "The Establishment of Spanish Rule in America," and "South America" was a popular illustrated history of the struggle for liberty in the Andean republics and Cuba, by Hezekiah Butterworth. "Four Centuries of Spanish Rule in Cuba; or, Why we went to War with Spain," by Italo Emilio Canini, brings us to the numerous histories of the recent conflict. These include "The War with Spain," by Charles Morris, who wrote also of "The Nation's Navy: Our Ships and their Achievements"; "A Short History of the War with Spain," by Marriion Wilcox; a "History of our War with Spain," by Henry B. Russell; a "History of the Spanish-American War," by Henry Watterson; "The Conflict with Spain," written with remarkable vividness of description by Henry F. Keenan (Dunois), the author of "Trajan," "The Money-makers," etc.; "The Santiago Campaign," by Major-Gen. Joseph Wheeler; "Marching with Gomez," by Grover Flint, a war correspondent's field note-book kept during four months with the Cuban army, which had an historical introduction by John Fiske; "Letters of a War Correspondent," by Charles A. Page, edited, with notes, by James R. Gilmore; Richard Harding Davis's review of "The Cuban and Porto Rican Campaigns"; "Cannon and Camera," sea and land battles of the Spanish-American war in Cuba, camp life, and the return of the soldiers, described and illustrated by John C. Hemment; "The Boys of '98," by James Otis Kaler; "In the Saddle with Gomez," by Capt. Mario Carrillo; "The Fall of Santiago," by Thomas J. Vivian; "The Gatlings at Santiago," by Lieut. John H. Parker; "Our Navy in the War with Spain," by John R. Spears, author of "The History of our Navy"; "With Dewey at Manila," edited by Thomas J. Vivian, from the notes and correspondence of an officer on board the flagship "Olympia"; and "A Gunner Aboard the 'Yankee,'" edited by H. H. Lewis, from the diary of Number Five of the after-port gun, which had an introduction by Admiral W. T. Sampson. "The Story of the Philippines" was written by Murat Halstead, who published also "Our Country in Time of War, and Relations with all Nations." "The Spanish Revolution, 1868-1875," by Edward Henry Strobel, follows an interesting period of Spain's modern history. Vol. IX of "Historical Tales: The Romance of Reality," by

Charles Morris, was given to the Spanish, while Vol. VII was devoted to Russia and Vol. VIII to Japan and China. "The Story of Canada" was written for the "Story of the Empire Series," by Howard Angus Kennedy. The history of "The Great Salt Lake Trail," by Col. Henry Inman, in collaboration with Col. William F. Cody (Buffalo Bill), intended as a companion volume to "The Old Santa Fé Trail," attained almost to the dignity of history while it formed most entertaining reading; it was illustrated by F. Cowan Clarke and Thomson Willing. "A History of the Twelfth Regiment New Hampshire Volunteers in the War of the Rebellion" was written by A. W. Bartlett; a "History of the Sixteenth Regiment New Hampshire Volunteers," by Luther Tracy Townsend, and a "History of the Seventeenth Regiment New Hampshire Volunteer Infantry, 1862-1863," by Charles N. Kent; while "The Story of a Cavalry Regiment, 'Scott's Goo,'" by Thomas Smith, contained the record of the Eleventh New York Cavalry, from the St. Lawrence river to the Gulf of Mexico, 1861-'65. A new edition was issued of Katharine Prescott Wormeley's showing of "The Cruel Side of War with the Army of the Potomac," the title being changed from "The Other Side of War," while "Fighting for Humanity; or, Camp and Quarter-deck," by Gen. Oliver Otis Howard, told of relief work done in conjunction with the Salvation Army in the Southern camps and in Cuba during the war with Spain. "The Earliest Colonial Laws of Rhode Island" filled three volumes, and were reprinted in limited editions by Sidney S. Rider, who accompanied them with historical introductions. A. H. Clark compiled "A Complete Roster of Col. David Waterbury, Jr.'s Regiment of Connecticut Volunteers," the first regiment of infantry responding to a call for volunteers for the defense of New York city against the British in the American Revolution. "Pictures of the City of Washington in the Past," by Samuel C. Busey, M.D., gave a political and social history of that city; "How the Dutch came to Manhattan" was penned and pictured by Blanche McManus in the series of "Colonial Monographs"; Vol. II of "Historic New York" contained the second series of the "Half Moon Papers," edited by Mrs. Maud Wilder Goodwin, Alice Carrington Royce, Ruth Putnam, and Eva Palmer Brownell; John Sawyer wrote the "History of Cherry Valley, from 1740-1898"; Spencer Trask commemorated the small park at the extreme end of Broadway known as "Bowling Green"; "Historic Towns of New England," in the series of "American Historic Towns," had an introduction by George Perry Morris, and was edited by Lyman P. Powell; an expensive "History of Barrington, R. I.," was issued in a limited edition by Thomas W. Bicknell; "Historic Boston and its Neighborhood" was an historical pilgrimage personally conducted by Edward Everett Hale, arranged for seven days; "Silas Wood's Sketch of the Town of Huntington, Long Island," from its first settlement to the end of the American Revolution, was edited with genealogical and historical notes by William S. Pelletreau; and Churchill Gibson Chamberlayne transcribed and published "The Vestry Book and Register of Bristol Parish, Virginia, 1720-1789." A "History of the World," from the earliest historical time to the year 1898, was written by Edgar Sanderson for "Appleton's Concise Library." A new library edition of the "Works" of Francis Parkman, in twelve volumes, was issued during the year, and the series of "American Colonial Tracts" was carried on.

Jurisprudence.—Fewer books are to be recorded in this department of literature than for some years past. "The Science of Law and Law Making," by R. Floyd Clarke, was intended as an introduction

to law, giving a general view of its forms and substance and a discussion of the question of codification. Edwin H. Woodruff wrote a brief "Introduction to the Study of Law." "A Treatise on the Constitution and Jurisdiction of the United States Courts on Pleading, Practice, and Procedure therein, and on the Powers and Duties of United States Commissioners," was the joint work of A. H. Garland, Robert Ralston, and John H. Ingham; and Carl Evans Boyd edited "Cases on American Constitutional Law." Samuel H. Foster was the author of "Foster's First Book of Practice at Common Law, in Equity and Under the Codes"; John J. McKelvey added to the "Hornbook Series" a "Handbook of the Law of Evidence"; H. C. Underhill published "A Treatise on the Law of Criminal Evidence"; Vols. I-IV of the "Law of Real Property," edited by Tilghman E. Ballard and E. Emerson, were issued; D. H. McFalls dwelt upon "Real Estate Proceedings with Precedents"; Leonard A. Jones contributed "A Treatise on the Law of Easements," in continuation of his "Treatise on the Law of Real Property"; and Edward B. Thomas expounded "The Law of Estates created by Will." "Selected Cases on the Law of Partnership," including limited partnerships, were published by Francis M. Burdick; "A Treatise on the Law of the Contract of Pledge," as governed by both the common law and the civil law, was written by Henry Denis; "A Selection of Cases on the Law of Contracts," by William A. Keener, filled two volumes; and "Elements of the Law of Negotiable Contracts" were set forth by Elias Finley Johnson. "The Principles of the Law of Corporations" were laid down by Charles B. Elliott, and "Cases on Public Corporations" were selected by Howard S. Abbott. "A Treatise on the Law of Monopolies and Industrial Trusts," as administered in England and the United States of America, was the work of Charles Fisk Beach, Sr. Rufus Waples treated of "The Law of Debtor and Creditor relative to the Situs of Debt," and "A Uniform System of Bankruptcy under the United States Law approved July 1, 1898," was arranged by T. W. Tallmage and D. W. Wood. Willis E. Myers prepared a "Syllabus of the Hon. Henry D. Harland's Lectures on the Law of Domestic Relations." Joseph H. Beale, Jr., drew up "A Selection of Cases on the Law of Carriers"; "The Law of Petroleum and Natural Gas" was set forth by George Bryan; and "The Law relating to Building and Loan Associations" by William W. Thornton and Frank H. Blackledge. "A Trustees' Handbook" was the work of Augustus Peabody Loring. Vol. I of the "Medical Jurisprudence of Insanity; or, Forensic Psychiatry," by S. V. Clevenger, contained an exhaustive presentation of the judicial decisions upon the subject by F. H. Bowlby. Vols. X, XI, and XII appeared of the "Encyclopædia of Pleading and Practice under the Codes and Practice Acts, at Common Law, in Equity, and in Criminal Cases," edited by William M. McKinney, were issued, bringing the work down to "Judicial Notice to Legal Conclusions"; Vols. IV, V, and VI of the "Encyclopædia of Forms and Precedents for Pleading and Practice," edited by William Mack and Howard P. Nash, under the supervision of James Cockcroft, reached "Compounding to Dividends"; Vols. VI, VII, VIII, and IX of the second edition of the "American and English Encyclopædia of Law" were sent out, as were Vols. II, III, IV, and V of the Century Edition of "The American Digest," a complete digest of all reported American cases from the earliest times to 1896, bringing the work down to "Assumpsit, Action of Bailiffs," and the "American Digest Annuals" for 1897 and 1898, containing all current decisions of all the American courts to Aug. 31, 1898; Vol. IV of the first series

of "American and English Decisions in Equity," annotated by Ardenus Stewart; Vols. IV and V of the "The General Digest, American and English," annotated; Vol. VII of the new series of "American and English Corporation Cases," edited by Thomas J. Michie; Vols. VII, VIII and X of the new series of "American and English Railroad Cases"; Vol. VII of "American Negligence Cases," edited by T. F. Hamilton, and Vols. II and III of "American Negligence Reports," edited by John M. Gardner; Vol. X of "American Criminal Reports," with notes and references by John Gibbons, and a full and accurate index digest covering Vols. I to X inclusive; Vol. II of a "Supplement to Notes on the Revised Statutes of the United States, and the subsequent Legislation of Congress," covering July 1, 1899, to Jan. 1, 1898, by John M. Gould and George F. Tucker; Vols. CLXVIII and CLXX of "United States Supreme Court Reports," edited by J. C. Bancroft Davis, and Book XLII of S. K. Williams's complete edition of the same, covering from the beginning of Vol. CLXVII to the end of Vol. CLXX. Vols. LXXXIII to LXXXVII inclusive appeared of the "United States Federal Reporter," permanent edition; Vols. LVII to LXII of "American State Reports," selected, reported, and annotated by A. C. Freeman, had a brief digest of Vols. LV to LX by J. M. Ross; and there yet remain for mention, in addition to the "Reports" and "Reporters" of the several States, Vols. XXVI, XXVII, XXVIII, and XXIX of United States Circuit Courts of Appeals "Reports," and several volumes of "Reports" of the United States Courts of Appeals. "The War Revenue Law of 1898" was annotated by Edward L. Heydecker and F. McMahon; and a "Ready Reference Book on the War Revenue Law" was compiled and edited by F. M. Holahan and W. B. Hopkins. George B. Davis was the author of an exhaustive "Treatise on Military Law and the Constitution, Jurisdiction, and Procedure of Courts-Martial of the United States"; Vol. VI of the "American Corporation Legal Manual," containing patent, trade-mark, and copyright laws of the United States, was edited by Charles L. Borgmeyer; and the "Miners' Manual," for the United States, Alaska, and the Klondike, by Horace F. Clark, Charles C. Heltman, and Charles F. Consaul, contained all necessary legal information. "The Commerce Clause of the Federal Constitution" was the subject of special study by E. Parmelee Prentice and John G. Egan. Vol. I of "A Digest of Decisions and Encyclopædia of Pennsylvania Law, 1754-1898," by George Wharton Pepper and William Draper Lewis, covered "Abandonment to Associations," and Vol. II, "Assumpsit to Constable."

Juvenile.—Books for young people continue to be written in increasing numbers and upon every variety of subject. "A Boy I Knew and Four Dogs" is the engaging record of Laurence Hutton's boyhood; "The Book of the Ocean," by Ernest Ingersoll, contained much scientific information for young people as well as many tales of battle and heroism; while from Clinton Ross (R.) we had the exploits of "Heroes of our War with Spain" told for a boy. "Under Dewey at Manila," by Edward Stratemeyer, contained the war fortunes of a castaway, and "A Young Volunteer in Cuba," in the "Old Glory Series," was also from his pen; Felix Leopold Oswald narrated "Adventures in Cuba" of another youth; while yet another Cuban war story was "The First Cruiser Out," by William Osborn Stoddard. The same author published also "Success Against Odds," telling how a boy made his way, and "With the Black Prince." "From School to Battlefield" was a story of the civil war by Capt. Charles King. Edward Stratemeyer was also heard from again in "The Minute Boys of Lexington"; "A

Hero of Ticonderoga" was chronicled by Rowland E. Robinson; Elbridge Streeter Brooks contributed "A Son of the Revolution" to the "Sons of the Republic Series"; Everett T. Tomlinson published Part II of "Stories of the American Revolution" in the "Library of Historic Events," and "Two Young Patriots; or, Boys of the Frontier," a story of Burgoyne's invasion, as well as "The Boys of Old Monmouth," "The Boys with Old Hickory," in the "War of 1812 Series," and "Ward Hill at Weston," a story of American school life, followed by "Ward Hill, Senior." "One Thousand Men for a Christmas Present," by Mary B. Sheldon, recalled the crossing of the Delaware by Washington. "The Young Puritans in King Philip's War," by Mary Prudence Wells Smith, belonged to the "Young Puritans Series." "Tecumseh of the Shawanoes," by H. R. Gordon, was intended as a companion book to "Pontiac, Chief of the Ottawas"; L. K. Parks fought the War of 1812 over again "With British and Braves"; "A Soldier of the Legion," by Charles Ledyard Norton, was a story of the great Northwest; and "Two Boys in Wyoming" and "Cowmen and Rustlers," by Edward S. Ellis belonged to the "Northwest Series." Hezekiah Butterworth was heard from in three books: "The Pilot of the Mayflower," a tale of the children of the Pilgrim republic, "Lost in Nicaragua; or, Among Coffee Farms and Banana Lands in the Countries of the Great Canal," and "In the Land of the Condor," a story of Tarapaca. Herbert Elliott Hamblen (F. Benton Williams) told "The Story of a Yankee Boy," full of adventures ashore and afloat, and also detailed "Tom Benton's Luck." William Drysdale published "The Young Supercargo," a story of the merchant marine, in the "Brain and Brawn Series"; Harry Castlemon (Charles Austin Fosdick) told of "A Sailor in Spite of Himself"; and "Navy Blue" was a story of cadet life in the United States Naval Military Academy at Annapolis, by Willis Boyd Allen. "Rex Wayland's Fortune" was made by H. A. Stanley; "In Pirate Waters" was a tale of the American navy, by Kirk Munroe, who wrote also "The Copper Princess," a story of Lake Superior mines. In "The Treasure Divers" Charles F. Holder described a boy's adventures in the depth of the sea. Horatio Alger, Jr., wrote "The Young Bank Messenger" for the "Good Fortune Library," and W. Gordon Parker illustrated his own account of "Six Young Hunters." "Klondike Nuggets and how Two Boys secured them," by Edward S. Ellis, and "The Boy Mineral Collectors," by J. G. Kelly, may be mentioned together; "Aleck Hornby," by Charles Stell, was a sea story; John Habberton was delightful as ever, interesting young people with the marvels to be seen "With the Dream-Maker"; John T. Trowbridge described "Philip's Experiments," outlining physical science at home, and also told of "Two Biddicut Boys and their Adventures with a Wonderful Trick Dog." James Otis Kaler was more prolific than ever, sending out "The Capture of the 'Laughing Mary,'" "With Washington at Monmouth," and "With Warren at Bunker Hill" in the "Continental Series"; "When Israel Putnam served the King" in the "Stories of American History Series"; "Corporal Lige's Recruit," "A Cruise with Paul Jones," "Morgan, the Jersey Spy," "Sarah Dillard's Ride," a story of the Carolinas in 1780, "A Tory Plot," and "A Traitor's Escape," all in the "Young Patriot Series"; "The Cruise of the 'Comet,'" in the "Privateers of 1812 Series"; "The Princess and Joe Potter," in the "Jenny Wren Series"; "The 'Charming Sally,' Privateer Schooner of New York: A Tale of 1765"; "Joel Harford" and "An Amateur Fireman"; while Miss Will Allen Dromgoole made almost as good a showing with

"A Boy's Battle," "Hero Chums," and "Rare Old Chums" in the "Young of Heart Series," "Three Little Crackers from Down in Dixie," and "A Moonshiner's Son." Sarah E. Morrison concluded her history of the Chilhowee boys with "Chilhowee Boys in Harness"; "Boys in Clover," by Sarah J. Clarke (Penn Shirley), told how the little Dukes found a sister; Mrs. I. T. Thurston contributed "A Frontier Hero" and "A Bachelor Maid and her Brother"; Julia Magruder wrote "Labor of Love," a story for boys; Mrs. Julia McNair Wright, "A Boy of To-day"; A. G. Plympton, "Gerald and Geraldine, and Other Stories"; "His Little Royal Highness" was by Mrs. Charles W. Ide (Ruth Ogden); "Whiz" was a story of the mines, by Amelia Weed Holbrook; Thomas Nelson Page wrote for young people the charming story of "Two Prisoners"; Anna Stevens Reed described "Mount Holyoke Days in War Time"; a fifth edition was issued of "Under King Constantine," by Katrina Trask (Mrs. Spencer Trask); Mrs. Harriet A. Cheever narrated "The Strange Adventures of Billy Trill" and told of "Little Mr. Van Vere of China"; while Mrs. Isabella M. Alden (Pansy) also published two books, "Reuben's Hindrances" and "As in a Mirror." "The Rancho on the Oxhide" was an exciting story of boys' and girls' life on the frontier, by Henry Inman; "Bilberry Boys and Girls" were the theme of Sophie Swett, and "The Lakerim Athletic Club" and its diversions, that of Rupert Hughes. "The Master of the Strong Hearts" was a story of Custer's last rally, by Elbridge Streeter Brooks. Sophie May (Rebecca Sophia Clarke) published "Pauline Wyman" and "Santa Claus on Snowshoes, and Other Stories"; Mrs. Evelyn Raymond, the author of "The Little Lady of the Horse," "Among the Lindens"; "A Proud Little Baxter" was by Frances Bent Dillingham; "Three Freshmen: Ruth, Fran, and Nathalie," by Jessie Anderson Chase; "Marjory and her Neighbors," by Louise E. Catlin; "A Lovable Crank" and "A Little Turning Aside," by Barbara Yechton (Lydia Farrington Krause); "Dorothy Deane" was a children's story by Mrs. Ellen Olney Kirk (Henry Hayes), and Amanda Minnie Douglas was the author of "A Little Girl in Old Boston," as Agnes Sage Carr was of "A Little Colonial Dame," a story of old Manhattan Island. "Teddy, Her Book," was a story of sweet sixteen by Anna Chapin Ray, and "An Odd Little Lass" was the heroine of Jessie E. Wright. "Everyday Honor" was by Fannie E. Newberry; "Dorothy Day," by Julie M. Lippmann; Mrs. Laura E. Richards continued the story of "Margaret Montfort," who belonged to "The Three Margarets" of last year; and Mrs. Kate Tannatt Woods told the story of "A Little New England Maid." Mrs. Harriet Mulford Lothrop published "A Little Maid of Concord Town"; Ellen Douglas Deland, "Katrina"; "Twixt You and Me" was a collection of boarding-school stories by Mrs. Grace Le Baron Upham; "Hester Stanley's Friends," by Mrs. Harriet Elizabeth Prescott Spofford, belonged to the same interesting period of existence, as did "Sherburne Girls," whom Amanda Minnie Douglas has made familiar in former volumes. "An Independent Daughter," "Thy Friend Dorothy," and "Kittyboy's Christmas" were from the pen of Amy Ella Blanchard; "Sir Jefferson Nobody" was the self-styled hero of Effie W. Merriam; Mary F. Leonard told "The Story of the Big Front Door," and Albert Paine Bigelow that of "The Hollow Tree." It is impossible to do more than enumerate "The Gap in the Fence," by Harriet Louise Jerome; "The Story of Johnnikin," by Beth Day; "Laura's Holidays," by Mrs. Henrietta R. Eliot; "Pickle and Pepper," by Ella Lorraine Dorsey; "Concerning Teddy," by Mrs. Murray

Hickson; "The Story of Little Jane and Me," by M. E.; and "Johnnie," by E. O. Laughlin, illustrated from photographs taken from life. "Stories True and Fancies New" was the title of rhymes and chimes by Mary W. Morrison (Jenny Wallis); "The Counterpane Fairy" was both written and illustrated by Katharine Pyle; "Old Sultan's Thanksgiving, and Other Stories," were by Lily Foster Wesselhoeft; "The Story of a Pumpkin Pie" was told in verses by William E. Barton and in pictures by A. M. Willard. "The Rock-a-by Land, and Other Tales," by Thomas H. Arnold, belong with "The Pleasant Land of Play," stories by Sarah J. Brigham. "The Littlest Ones" was the joint production of Maud Humphrey and Elizabeth S. Tucker, and from it two volumes of selections were made, entitled "Little Rosebuds and Baby Folk." "Wonder Tales from Wagner" were told for young people by Anna Alice Chapin, and "Stories from Dante" by Norley Chester, and "The Story of Roh Roy" was condensed from the novel of Sir Walter Scott, by Edith D. Harris for "Appletons' Series of Home Reading Books."

Medicine and Surgery.—Vols. XII to XV inclusive of "Twentieth Century Practice," an international encyclopædia of modern medical science, by leading authorities of Europe and America, edited by Thomas L. Stedman, M. D., were issued during the year; James C. Wilson, M. D., edited "An American Text-book of Applied Therapeutics," for the use of practitioners and students; George M. Gould, M. D., edited "The American Yearbook of Surgery for 1898," and Frank Pierce Foster, M. D., a "Reference Book of Practical Therapeutics," by various authors, in two volumes. "A Text-book of Materia Medica, Therapeutics, and Pharmacology," was prepared by George F. Butler, M. D., and "A Text-book of Pathology," by Alfred Stengel, M. D. "The Origin of Disease," especially of diseases resulting from intrinsic as opposed to extrinsic causes, was considered by Arthur V. Meigs, M. D., and contained chapters on diagnosis, prognosis, and treatment by Herman and Erwin F. Faber. Robert Hutchison and Harry Rainy made a study of "Clinical Methods"; "The Practitioner's Manual," by Charles Warrenne Allen, M. D., was a condensed system of medical diagnosis and treatment; and John E. Groff wrote a "Handbook of Materia Medica for Trained Nurses." Vol. V was issued of "A System of Medicine by many Writers," edited by Thomas Clifford Allbutt, M. D., and the "Manual of Pathology," by W. M. L. Coplin, M. D., was in reality a second edition of his "Lectures on Pathology," rewritten and enlarged. "A Text-book of Histology," descriptive and practical, for the use of students, was the work of Arthur Clarkson; E. K. Dunham, M. D., wrote on "Histology, Normal and Morbid"; a third edition of Maurice N. Miller, M. D.'s "Students' Histology" was revised by Herbert U. Williams, M. D., and "An Epitome of Human Histology," for the use of students in connection with lectures and laboratory work, was written by Arthur W. Weyssse. "Cataphoresis; or, Electric Medicament Diffusion as applied in Medicine, Surgery, and Dentistry," was the theme of William James Morton; S. H. Monell, M. D., wrote on "Treatment of Disease by Electric Current"; "A Laboratory Manual of Electro-Therapeutics" was drawn up by William J. Herdman, M. D., and Frank W. Nagler; Parts I to IV of Vol. I, and Part I of Vol. II were issued of "Archives of the Roentgen Ray," formerly "Archives of Clinical Skiagraphy," edited by W. S. Hedley, M. D., and Sydney Rowland; David Walsh, M. D., described "Roentgen Rays in Medical Work," and Frederic Strange Kolle, M. D., "The X Rays: Their Production and Application." Simon Baruch, M. D., explained

"The Principles and Practice of Hydropathy"; "Osteopathy, Complete," came from Elmer D. Barber, and a second edition, revised and enlarged, appeared of "Essentials of Homœopathic Therapeutics," by W. A. Dewey, M. D. Louis Stephen Pilcher discussed "The Treatment of Wounds." Vol. II appeared of a "System of Diseases of the Eye," by American and European authors, for which we were indebted to William F. Norris, M. D., and Charles A. Oliver, M. D.; A. Maitland Ramsay, M. D., prepared an "Atlas of External Diseases of the Eye," and a second revised and enlarged edition was made of "Diseases of the Eye," by G. E. de Schweinitz, M. D. W. J. Walsham wrote upon "Nasal Obstruction"; "Diseases of the Stomach" were the theme of John C. Hemmeter, M. D., and again of William W. Van Valzah, M. D., and J. Douglas Nisbet, M. D.; T. N. Kelyack made a specialty of "Renal Growths," and Herman Mynter, M. D., of "Appendicitis and its Surgical Treatment," with a report of 75 operated cases. Three lectures of Charles B. Kelsey, M. D., upon "The Office Treatment of Hemorrhoids, Fistula, etc., without Operation," were collected into a small volume. "Diabetes Mellitus and its Treatment" was considered by R. T. Williamson, M. D.; William H. Howell, M. D., edited "An American Text-book of Physiology"; and "Practical Exercises in Comparative Physiology and Urine Analysis" were given by Pierre A. Fish. "Practical Urinalysis and Urinary Diagnosis," by C. W. Purdy, went through a fourth revised edition. James Kingston Fowler, M. D., and Rickman J. Godlee gave particular attention to "The Diseases of the Lungs," and "Tropical Diseases," by Patrick Manson, was intended as a manual of the diseases of warm climates. "The Surgical Complications and Sequels of Typhoid Fever" formed the subject of a volume by William W. Keen, M. D. "Meditations on Gout," both practical and literary, with a consideration of its cure through the use of wine, by George H. Ellwanger, had a frontispiece and decoration by George Wharton Edwards, and was intended for both the student of medicine and the general reader. "Lectures on the Theory and Practice of Vaccination" were delivered by Robert Cory, M. D. "Operative Gynecology," by Howard A. Kelly, M. D., was complete in two volumes, and a third edition, revised, rewritten, and enlarged, was made of "Conservative Gynecology and Electro-Therapeutics," by G. Betton Massey, M. D.; E. C. Buck, M. D., was the author of "A Treatise on the Principles and Practice of Gynecology"; John Clarence Webster, M. D., drew up a text-book of "Diseases of Women"; and Barton Cooke Hirst, M. D., "A Text-book of Obstetrics." "Veterinary Obstetrics" were prepared for students and practitioners by W. H. Darrmple. L. Bolton Bangs, M. D., and William A. Hardaway, M. D., were joint editors of the "American Text-book of Genito-Urinary and Skin Diseases (including Syphilis)," and "A Manual of Venereal Diseases" was by James R. Hayden, M. D. James Foster Scott, M. D., wrote upon "The Sexual Instinct: Its Use and Dangers as affecting Heredity and Morals." "Cutaneous Medicine" was the title of a systematic treatise on the diseases of the skin by Louis A. Duhring, M. D., and George Henry Fox, M. D., made a specialty of "Skin Diseases of Children"; a second revised edition was also made of "An American Text-book of the Diseases of Children," by Louis Starr, M. D. "About Children" was the substance of six lectures given to the nurses in the training school of the Cleveland General Hospital in February, 1896, by Samuel W. Kelley, M. D. "A Treatise on Aphasia and Other Speech Defects" emanated from H. Charlton Bastian, M. D., and Joseph Collins, M. D., in "The Genesis and Dissolu-

tion of the Faculty of Speech" made a clinical and psychological study of the same disease. "The Cure of Writers' Cramp, and the Arm Troubles of Telegraphers and Ball Players," was briefly suggested by S. H. Monell, M. D., and W. C. Hollopeter, M. D., reviewed "Hay Fever and its Successful Treatment." "The Nervous System and its Diseases" were examined by Charles K. Mills, M. D., and a new edition was issued of "The Diseases of the Nervous System," by Louis Hirt. Original studies upon "The Normal and Pathological Circulation in the Central Nervous System (Myel-Encephalon)," by William Browning, M. D., were given to the world, and Pearce Bailey, M. D., discussed "Accident and Injury: Their Relations to Diseases of the Nervous System." A "Clinical Manual of Mental Diseases" was prepared by A. Campbell Clark, M. D.; "A Compendium of Insanity," by John B. Chapin, M. D.; and "A Primer of Psychology and Mental Diseases," by C. B. Burr, M. D., went through a second, thoroughly revised, edition. "A Text-book of Dental Pathology and Therapeutics, including Pharmacology," was by H. H. Burchard, M. D. Theodore Potter, M. D., published "Essays on Bacteriology and its Relation to the Process of Medicine"; Edgar M. Crookshank, "A Text-book of Bacteriology," including the etiology and prevention of infective diseases, and an account of yeasts and molds, hematozoa and psorosperms. "Notes on Micro-Organisms Pathogenic to Man" were made by B. H. S. Leumann, and "Laboratory Directions for Beginners in Bacteriology" were given by Veranus A. Moore, M. D. "Outlines of Anatomy," by Edmund W. Holmes, M. D., was intended as a guide to the methodical study of the human body in the dissecting room, and "Mammalian Anatomy," by Horace Jayne, M. D., was a preparation for human and comparative anatomy. Winfield S. Hall was the author of "A Laboratory Guide in Physiology." "Practical Points in Nursing," for nurses in private practice, were given by Emily A. M. Stoney, and "How to become a Trained Nurse" was edited by Jane Hodson, giving information in detail together with a complete list of the various training schools for nurses in the United States and Canada. "Diet in Illness and Convalescence" was prescribed by Alice Worthington Winthrop. "A Manual of Hygiene and Sanitation" came from Seneca Egbert, M. D., and "Outlines of Rural Hygiene" were briefly given by Harvey B. Bashore, M. D. "The Psychology of Health and Happiness" was investigated by La Forest Potter, M. D., and some practical suggestions for the improvement of the "Health of Body and Mind" were offered by T. W. Topham, M. D. Vol. I of the "Home Health Club," by David H. Reeder, M. D., inaugurated the series of seven, and contained the preparatory course. Vols. IV and V of "Medico-Legal Studies," by Clark Bell, were sent out, and "A Laboratory Manual of Physiological and Clinical Chemistry and Toxicology" was the work of Arthur E. Austin, M. D., and Isador H. Coriat. The "New Warren's Household Physician," a new edition, enlarged and revised, of "Warren's Household Physician," had the allopathic department, by Ira Warren, M. D., revised by William Thorndike, M. D., and the homœopathic department, by A. E. Small, M. D., revised by John Heber Smith. "Elements of Latin" for students of medicine and pharmacy were set down by George D. Crothers, M. D., and Hiram H. Bice. Vol. III of the second series of the "Index-Catalogue of the Library of the Surgeon-General's Office, United States Army," giving authors and subjects, covered C-Czygan. To surgery proper belonged "A Manual of Surgery," by William Rose and Albert Carless, a "Manual of Operative Surgery," by H. J. Waring; a second revised edition of "An American Text-

book of Surgery," edited by William W. Keen, M. D., and J. W. White, M. D.; a second edition of "A Manual of Modern Surgery, General and Operative," by John Chalmers Da Costa, M. D.; Vol. II of "A Text-book of General Surgery," by Hermann Tillmans, covering "Regional Surgery"; "Orthopædic Surgery," by James E. Moore, M. D.; and "Brief Essays in Orthopædic Surgery," by Newton M. Shaffer, M. D.

Poetry.—"In Palestine, and Other Poems," by Richard Watson Gilder, and "From Sunset Ridge," by Mrs. Julia Ward Howe, contained alike poems old and new, and from poets of the later generation we had numerous volumes of verse, some excellent and many that were ordinary. "New York Nocturnes, and Other Poems," came from Charles G. D. Roberts; "Comes One with a Song" was by Frank L. Stanton, the Georgia laureate; "Weh Down Souf, and Other Poems," by Daniel Webster Davis; "Shapes and Shadows," by Madison Julius Cawein; "The Birth of Galahad," by Richard Hovey; and "By the Aurelian Wall, and Other Elegies," by Bliss Carman. "Songs of War and Peace" were sung by Sam Walter Foss, the author of "Back Country Poems" and "Dreams in Homespun"; "Soldier Songs and Love Songs," by A. H. Laidlaw; and "Songs of Good Fighting," by Eugene R. White. "Ballads and Poems" came from John H. Yates, "The Ocean of Dreams, and Other Poems," from Carolyn Howard Philip; "The Seven Voices," from J. Hooker Hammersley; "The Song of Stradella," from Anna Gannon; "Driftwood," sketches in poetry and prose, from Minnie Wallace Ketchum; "Labor and the Angel," from Duncan Campbell Scott; "Prince Ragnal, and Other Holiday Verses," from Eleanor Cecilia Donnelly; and "Poems," from Philip Henry Savage. "The Wayfarers" was the title of poems by Josephine Preston Peabody; "From Me to You" of poems by Lillian Gertrude Shuman; "Before the Dawn" was a book of poems, songs, and sonnets, by Joseph Leiser; "Voices of the Morning" were heard by J. A. Edgerton; "December Musings, and Other Poems," of Charles Sanford Olmstead, were collected into a volume; "The Shrine of Love, and Other Poems," were from the pen of Lucien V. Rule, and "Tents on the Plains" from that of Shannon Birch; "Songs of Flying Hours" were sung by Edward Willard Watson, M. D., and "Songs of Destiny and Others," by Julia P. Dabney. "Elecampane, and Other Poems," were by T. J. Moore; "The Slopes of Helicon, and Other Poems," by Lloyd Milfin; "The Carnival of Venice, and Other Poems," by Florence Danforth Newcomb; "When the Birds Go North Again," by Mrs. Ella Higginson; "At the Foot of the Mountain" was a collection of short poems by Emily R. Logue; "Songs of Two Peoples," by James Riley, were divided between the American and Irish nationalities; "Songs from the Southwest Country" came from Freeman E. Miller, and "Some Verses" from Helen Hay. "The Dream Beautiful, and Other Poems," by Charles Hamilton Musgrove; "The Chords of Life," by Charles H. Crandall; "Immortelles and Asphodels," by Laura G. Collins; "Impressions," by Lilla Cabot Perry, and volumes of "Poems" respectively from Mrs. Florence Earle Coates and Philip Becker Goetz deserve mention; and "Ben King's Verse" was edited by Nixon Waterman and had an introduction by John McGovern and a biography by Opie Read of the author, Benjamin F. King, Jr., known as the Michigan bard. Most of them were humorous and in dialect. "Phil-o-rum's and Madeleine Vercheres" were two French-Canadian dialect poems by William H. Drummond, M. D. "The Bashful Earthquake, and Other Fables and Verses," contained many pictures by the author, Oliver Herford; "Where Beauty is,

and Other Poems," by Henry Johnson, consisted of twelve sonnets and short poems, and from Tom Hall we had society verses entitled "When Cupid Calls" and "When Love Laughs," the last a new collection of society verse. "The Gotham of Yassar" was a satire in verse by N. J. Clodfelter, and "Three Women" were the theme of Mrs. Ella Wheeler Wilcox. "La Santa Yerba," a volume of verse in praise of tobacco, by William L. Shoemaker, was preluded by a few choice mottoes from lovers of the Indian weed from the time of Sir Walter Raleigh to the present day. Nature poems entitled "The Shadows of the Trees, and Other Poems," were by Robert Burns Wilson. "On Christmas Day," by Ellen M. H. Gates, and "Christmas in California," by Rowland Sill, were illustrated single poems, as was "Monticello: A Picture of the Past," by Arthur C. Butts. "Down Durlay Lane, and Other Ballads," by Virginia Woodward Cloud, were illustrated by Reginald B. Birch. "Fables for the Frivolous" were offered, with apologies to La Fontaine, by Guy Wetmore Carryl. One of the most striking books published during the year was a collection of "Songs from the Ghetto," by Morris Rosenfeld, a Russian Jew, who voices the misery of the sweat shops of New York city. His three groups of songs, "Songs of Labor, National Songs, and Miscellaneous," were translated and had a glossary and introduction by Leo Weiner. Volumes of selections of verse include "A Treasury of American Verse," edited by Walter Learned; "Cornell Verse," compiled by H. Adelbert Lyon; and "The Doctor's Window," poems by the doctor, for the doctor, and about the doctor, edited by Ina Russelle Warren, which had an introduction by William Pepper, M. D. George C. Perine made selections from the "Poets and Verse-Writers of Maryland"; "Ships and Sailors," a collection of songs of the sea as sung by the men who sail it, was edited and compiled by James Barnes and illustrated in color and black and white by Rufus F. Zogbaum; "Songs of Sea and Sail" were also collected by Frederic Fleming Day; "Immortal Songs of Camp and Field" were sent out by Rev. Louis Albert Banks, D. D., with the story of their inspiration and striking anecdotes connected with their history. S. A. Witherbee compiled and edited "Spanish-American War Songs," a collection of poems written during the recent war with Spain, and "Mother-Song and Child-Song" were put together by Charlotte Brewster Jordan from the writings of many poets. "Aarbert" was the title of a drama without the stage or scenery, wrought out through song in many meters, mostly lyrical, by William Marshall; "Capriccios," a collection of dramatic sketches, came from Louis James Block, and "The Reformer of Geneva," an historical drama, from Charles Woodruff Shields. A revised edition of the "Complete Poetical Works" of Joaquin Miller was published during the year, and "Selections from the Prose and Poetry of Walt Whitman" were edited with an introduction by Oscar Lovell Triggs. James Mudge, D. D., made choice of "The Best of Browning," and Rose Porter gave us "Tennyson's Men and Women," arranged for every day in the year.

Political, Social, and Moral Science.—Foremost among the works falling under this head must be mentioned "The Science of Political Economy," by Henry George, which represents the labor of the last six years of his life upon a subject which he had at least the honor of making popular and widely discussed, if he did not succeed in fathoming all of its problems. A memorial edition of his "Writings" was also inaugurated during the year. "The Philosophy of Government" was investigated by George W. Walthew; Simeon E. Baldwin made a study of "Modern Political Institutions," and John Jay

Chapman of "Causes and Consequences" in politics, society, education, democracy, and government, while "Unforeseen Tendencies of Democracy" were the theme of Edwin Lawrence Godkin. "A History of the Presidency" by Edward Stanwood, while based upon his "History of Presidential Elections," published in 1884, contains much new matter and many modifications of the original. Lauros G. McConachie, in "Congressional Committees," made a study of the origins and development of our national and local legislative methods for the "Library of Economics and Politics." "The Federalist" was edited as a commentary on the Constitution of the United States, by Paul Leicester Ford, with notes, illustrative documents, and a copious index, and "Washington vs. Jefferson: The Case tried by Battle in 1861-'65," by Moses M. Granger, traced the conflict between the two theories of our Government. "The True History of the Missouri Compromise and its Repeal" was written by Mrs. Archibald Dixon, and belongs to political rather than general history. "The Growth of Democracy in the United States; or, The Evolution of Popular Co-operation in Government and its Results," was traced by Frederic A. Cleveland; "The Rights and Duties of American Citizenship" were examined by Westel Woodbury Willoughby; Henry Gaullier made a study of "The Paternal State in France and Germany"; and Bernard Moses delivered four lectures on "Democracy and Social Growth in America." "America's Foreign Policy" was the subject of essays and addresses by Theodore Salisbury Woolsey, and "Mexico and the United States," a study of subjects affecting their political, commercial, and social relations made with a view to their promotion, was from the pen of the late ambassador from that sister republic, Matias Romero, than whom no one was better prepared to give the information contained in the work. "Social Elements, Institutions, Character, Progress," were the theme of Charles Richmond Henderson; "Outlines of Sociology" were supplied by Lester F. Ward, and from John Henry Wilbur Stuckenberg we had an "Introduction to the Study of Sociology." "The Social Crisis, the Duty of Government," came from Dempster Ostrander, the author of "Social Growth," and John Franklin Crowell in "The Logical Process of Social Development" laid a theoretical foundation for educational policy from the standpoint of sociology. George Edgar Vincent considered "The Social Mind and Education," and Edward Payson Payson made "Suggestions toward an Applied Science of Sociology." Part I of "The Individual and his Relation to Society as reflected in British Ethics," by James H. Tufts and Helen B. Thompson, in the "University of Chicago Contributions to Philosophy," dealt briefly with "The Individual in Relation to Law and Institutions." "Popular Progress," by Thomas Donohue, D. D., examined the cause of agricultural and industrial depression and the remedy, while Laurence Gronlund, in "The New Economy," found a peaceful solution of the social problem. "How to Right a Wrong, the Ways and the Means," according to Moses Samelson, was by a single graduated tax on surplus wealth; Alfred R. Justice proposed "An Equitable Exchange System"; and "Tendencies in American Economic Thought" were the theme of Sidney Sherwood in the "Johns Hopkins University Studies." "The Workers: An Experiment in Reality: the West," by Prof. Walter A. Wyckoff, supplements his previous volume on the East; "Labor Co-partnership," by Henry Demarest Lloyd, was the title of notes of a visit to co-operative workshops, factories, and farms in Great Britain and Ireland; "Industrial Experiments in the British Colonies of North America" were described by Eleanor Louisa

Lord in the "Johns Hopkins University Studies"; James W. Crook gave a history of the development of "German Wage Theories," and Prof. John Davidson showed "The Bargain Theory of Wages," a critical development from the historic theories. "Workingmen's Insurance," by William Franklin Willoughby, appeared in the "Library of Economics and Politics." In the "Columbia University Studies" we had "Sympathetic Strikes and Sympathetic Lockouts," by Frederick S. Hall, and "The Centralization of Administration in New York State," by John Archibald Fairlie; "Economic Studies" included "The Housing of the Working People in Yonkers," by Ernest Ludlow Bogart; "Economic Aspects of Railroad Receiverships," by H. H. Swain; "Government by Injunction," by William H. Dunbar; "The Ohio Tax Inquisitor Law," by T. N. Carver; and "The American Federation of Labor," by Morton A. Aldrich. "Density and Distribution of Population in the United States at the Eleventh Census," by Walter F. Willcox, was published for the American Economical Association, the "Handbook" of which for 1898 was issued, and from George Sanders we had "A Reality; or, Law and Order vs. Anarchy and Socialism," a reply to Edward Bellamy's "Looking Backward" and "Equality." "The City Wilderness: A Settlement Study," by residents and associates of the South End House, Boston, was edited by Robert A. Woods. "Thirty Years of American Finance" was a short financial history of the Government and people of the United States since the civil war, by Alexander Dana Noyes; Henry B. Russell explained the purposes, character, and results of "International Monetary Conferences"; William Brough discussed "Open Mints and Free Banking"; "Money and Bimetallism" was the theme of Henry A. Miller, and from John M. Gould and Edward H. Savary we had "The War Revenue Law of 1898 Explained," while "Financial Management of a War," by Henry C. Adams, was reprinted from "Public Debts." The "Finances of New York City" were treated at length by Edward Dana Durand, and Perry Belmont asserted the "Republican Responsibility for Present Currency Perils." "The Philopologist; or, City Lover," came from Charles F. Goss, the author of "The Optimist"; Josiah Strong, D. D., made suggestions for "The Twentieth Century City"; the "Municipal History and Present Organization of the City of Chicago" was the subject of a thesis submitted for the degree of doctor of philosophy in the department of political science of the University of Wisconsin by Samuel Edwin Sparling; Part I of "Charters of the City of Chicago," by Edmund J. James, covered "The Early Charters, 1833-'37," and a second edition was issued of "Special Assessments," a study in municipal finance, by Victor Rosewater in the "Columbia University Studies." "Rules of Parliamentary Procedure" were laid down by John L. Branch, and "Advanced Rules for Large Assemblies" was intended as a supplement by Mrs. Harriette Shattuck to her "Woman's Manual of Parliamentary Law." "The History of the Woman's Club Movement in America" was by Mrs. Jane Cunningham Croly; Charlotte Perkins Stetson in "Women and Economics" presented a study of the economic relation between men and women as a factor in social evolution, likely to meet the approval of the most "advanced" of what Helen Watterson Moody terms "The Unquiet Sex." "The Negro in America, and the Ideal American Republic," were the subject of eight essays by Thomas J. Morgan, D. D., and "Civilization the Primal Need of the Race" was the theme of the inaugural address of Alexander Crummel, D. D., before the American Negro Academy, of which he was president, bound, in

pamphlet form, with his first annual address upon "The Attitude of the American Mind toward the Negro Intellect." Publications of the American Academy of Political and Social Science included "The Place of the Political and Social Sciences in Modern Education," by Edmund J. James; "The Study and Teaching of Sociology" and "The Unit of Investigation or of Consideration in Sociology," by Samuel McCune Lindsay; "Sociology applied to Politics," by F. Siegel; "The Relation of the Colonial Fee System to Political Liberty," by Thomas K. Urdahl; "Sociology and Philanthropy," by F. H. Wines; "Proposed Reforms of the Monetary System," by Joseph French Johnson; "The Relation of Postal Savings Banks to Commercial Banks," by James H. Hamilton; "The Economic Relation of Life Insurance to Society and State," by L. G. Fouse; "The Economic Effects of Ship Canals," by John Archibald Fairlie; "The Development of the Census," by Roland P. Falkner; "Political and Municipal Legislation in 1897," by Edward Dana Durand; "Municipality and the Gas Supply as illustrated by the Experience of Philadelphia," by L. S. Rowe; "Oscillations in Politics," by Abbott Lawrence Lowell; "The Legal Status of California, 1846-'49," by Rockwell D. Hunt; "The History of Fiat Money and Currency Inflation in New England from 1620 to 1789," by F. F. McLeod; "The War as a Suggestion of Manifest Destiny," by H. H. Powers, and "Intervention and the Recognition of Cuban Independence," by Amos S. Hershey; "Australian Problems in History," by Helen Page Bates; a "Study of the Negro Problems," by W. E. Burghardt Du Bois; and "Causes Affecting Railway Rates and Fares," by W. E. Weyl.

Sports and Pastimes.—"Trail and Camp Fire: The Book of the Boone and Crockett Club," edited by George Grinnell Bird and Theodore Roosevelt, proved a mine of interest to the sportsman, and "The Golfer's Alphabet," by W. G. Van T. Sutphen, illustrated by A. B. Frost, is not to be lightly passed over. "A Handbook of Wrestling," by Hugh F. Leonard, was edited by Frederic A. Fernald, and Hartwig Nissen published "Rational Home Gymnastics." "The Grand Tactics of Chess," by Franklin K. Young, was followed by his exposition of "The Major Tactics of Chess," the two forming with his "Minor Tactics of Chess" a complete exposition of the laws and principles of chess strategics. Robert F. Foster explained briefly "Foster's Common Sense Leads and How to Read them," and a second series of "Dick's Games of Patience; or, Solitaire with Cards," contained 70 games. Martha Russell Orne traced the origin of "Hallowe'en," and told how to celebrate it with appropriate games and ceremonies.

Theology.—"An Outline of Christian Theology," was offered by William Newton Clarke, D. D., and "God, Nature and Attributes," by Randolph Sinks Foster, D. D., in the series of "Studies in Theology" supplemented his former work on "Theism." "Biblical Apocalypics" was a study of the most notable revelations of God and of Christ in the canonical Scriptures, by Milton Spencer Terry, D. D., while "Corner Stones of Faith; or, The Origin and Characteristics of the Christian Denominations in the United States," were discussed by Charles H. Small, D. D. "In Christ Jesus; or, The Sphere of the Believer's Life," was the theme of Arthur Tappan Pierson, D. D.; "The Manifestations of the Risen Jesus: Their Methods and Their Meanings," were the subject of the Charlotte Wood Slocum lectures for 1897 by Bishop William Cresswell Doane; Borden P. Bowne met difficulties connected with "The Christian Revelation"; and Rev. Samuel F. Hotchkiss wrote upon "The Living Sav-

jour." O. C. Auringer and J. Oliver Smith were the joint authors of "The Christ: A Poetical Study of His Life from Advent to Ascension"; "Was Christ Born at Bethlehem?" was a study on the credibility of St. Luke, by W. M. Ramsay, who holds to the affirmative, and "Christ and the Critics," by Gérôme, adduced evidence in favor of the authorship of the Pentateuch by Moses. Rev. William James considered two supposed objections to the doctrine of "Human Immortality," and "The Mystery of Life," by Harry E. Richards, M. D., was a study of revelation in the light of science. "Spiritual Life," by L. L. Nash, D. D., had an introduction by Bishop O. P. Fitzgerald; "Christian Truth and Life" were the subject of sermons by Milton Valentine, D. D.; Walton W. Battershall, D. D., suggested "Interpretations of Life and Religion"; "The Kingdom of God and Problems of To-day" was the title of lectures delivered before the biblical department of Vanderbilt University by Alexander Sutherland, D. D.; David H. Greer, D. D., published "Visions: Sunday Morning Sermons at St. Bartholomew's"; David James Burrell, D. D., "The Wondrous Cross, and Other Sermons"; John Oates, "The Sorrow of God, and Other Sermons"; Francis Greenwood Peabody, "Afternoons in the College Chapel," short addresses to young men on personal religion; Rev. C. Armand Miller, "The Way of the Cross," a series of meditations on the history of the Passion of our Lord; Rev. Rudolph von Smetana, "Spiritual Exercises for a Ten Days' Retreat"; and Rev. P. Woods, a "Guide to True Religion," a manual for followers of the Church of Rome. "At the Evening Hour" was the title of simple talks on spiritual subjects by Ethelbert D. Warfield. William Henry Green, D. D., wrote a "General Introduction to the Old Testament: The Canon"; "The History of the English Bible Studied by the Library Method," by S. G. Ayres and Rev. Charles F. Sitterly, had an introduction by Henry M. MacCracken; Vol. I of "The Psalms and their Story," by William E. Barton, D. D., was devoted to a study of the Psalms as related to Old Testament history "From the Exodus," while the second volume covered "From the Exile to the Advent." "The Messages of the Earlier Prophets" were arranged in the order of time, analyzed, and freely rendered in paraphrase by Frank Knight Sanders and Charles Foster Kent, and "Life Lessons from the Book of Proverbs" were gleaned by Bishop William Stevens Perry. "The Gospel according to Saint Mark" was accompanied with an explanatory and critical commentary by Rev. A. J. Maas; "Matthews Gospel" was added by John Worcester to the series of "Spiritual Interpretations of the Scriptures"; A. H. Ames, M. D., D. D., wrote an interpretation of "The Revelation of St. John the Divine"; while "Outlines of New Testament History" were offered by Rev. F. E. Gigot. Dr. Lyman Abbott contributed a volume upon "The Life and Letters of Paul the Apostle," and "A People's Commentary: Romans and 1 and 2 Corinthians," came from George Whitfield Clark, D. D. A "Child's Story of the Bible," by Mrs. Mary A. Lathbury, had an introduction by Bishop John H. Vincent, and "Stories from the Old Testament" were told for children by Harriet S. B. Beale. Walter F. Adeney delivered two lectures upon "The Construction of the Bible" at the Matlock Chautauqua in 1897. "Bible Difficulties and their Alleviative Interpretations" came from Robert Stuart MacArthur; Rev. Martin S. Brennan set forth "The Science of the Bible"; and "Ideas from Nature," by William Elder, was an attempt to prove the world the work of an intelligent Creator. "Sacred Scenes and Mysteries" were gone over by Rev. J. F. X. O'Connor; "Voices

of Hope, and Other Messages from the Hills," was a series of essays on the problem of life, optimism, and the Christ, by Horatio W. Dresser; Rev. Samuel Zane Batten wrote for the "Green Fund Books" on "The New Citizenship," or Christian character in its biblical ideals, sources, and relations; "The Message of Christ to Manhood" was the title of the William Belden Noble lectures for 1898, by Alexander Viets Griswold Allen, D. D., Francis G. Peabody, D. D., Theodore Thornton Munger, D. D., and others; "The Higher Manhood; or, Character through Inspiration," was explained by Rev. Duane C. Johnson; Charles Franklin Thwing, D. D., outlined "The Best Life" in an address printed in the "What is Worth While Series"; and Charles Wood, D. D., dwelt upon "Friends and Foes of Youth." Alexander McKenzie, D. D., treated of the Christian life in "A Door Opened"; Louis Albert Banks, D. D., made "The Christian Gentleman" the subject of a series of addresses to young men, in addition to publishing a series of revival sermons upon "Paul and his Friends"; and "Addresses to Women engaged in Church Work" by Bishop Henry Codman Potter, were collected into a volume. George R. Crooks, D. D., wrote "The Story of the Christian Church"; Prof. R. M. Wenley traced "The Preparation for Christianity in the Ancient World"; Lawrence T. Cole discussed "The Basis of Early Christian Theism" in the "Columbia University Contributions to Philosophy, Psychology and Education"; and Lucius Waterman, D. D., added "The Post-Apostolic Age" to the "Ten Epochs of Church History." "Christian Philosophy" was the title of a treatise on the human soul by Rev. John T. Driscoll; Washington Gladden, D. D., added a volume upon "The Christian Pastor and the Working Church" to the "International Theological Library"; and "The Making and the Unmaking of the Preacher" was the theme of lectures on the Lyman Beecher foundation by William Jewett Tucker. "Catholic Faith and Practice: A Manual of Theology," came from Alfred Garnett Mortimer, D. D.; Charles C. Tiffany, D. D., delivered the Bohnen lectures upon "The Prayer Book and the Christian Life," while "A Concordance to the 'Book of Common Prayer' according to the Use of the Protestant Episcopal Church in the United States of America" was prepared by Rev. J. Courtney Jones; "The Making of Methodism" was reviewed by John James Tigert, D. D.; "Makers of Methodism" were commemorated by W. H. Withrow for the "Epworth League Reading Course," for which George H. Dryer, D. D., wrote also "The Founding of a New World," and "One Thousand Questions and Answers concerning the Methodist Episcopal Church," by Henry Wheeler, D. D., had an introduction by Henry A. Butt, D. D.; Rev. W. H. H. Marsh claimed the Baptist to be "The New Testament Church," and "A History of the Baptists in the Middle States" was written by Henry C. Vedder. Benjamin B. Warfield delivered an address upon "The Significance of the Westminster Standards as a Creed" on the occasion of the celebration of the two hundred and fiftieth anniversary of their completion, and addresses on "Pioneer Presbyterianism in Tennessee," delivered at the Tennessee Exposition on Presbyterianism Day, Oct. 28, 1897, were collected and published. "The New Puritanism," a series of papers by Dr. Lyman Abbott, Amory H. Bradford, Charles A. Berry, D. D., and others during the semi-centennial celebration of Plymouth Church, Brooklyn, N. Y., 1847-97, had an introduction by Rossiter W. Raymond; while suggestions for "A National Church" were contained in the Bedell lectures for 1897 by William Reed Huntington. "Renascent Christianity" was a forecast of the twentieth cen-

tury in the light of the higher criticisms of the Bible study of comparative religion and of the universal religious unity, Anno Christi 1898-2000, by an anonymous clergyman, the author of "Ancient Sacred Scriptures of the World"; and "The Divine Drama the Manifestation of God in the Universe" was an attempt by Granville Ross Pike to adjust the new lines of religious thought to the old landmarks. Rev. Morgan Dix edited "A History of the Parish of Trinity Church in the City of New York," compiled by order of the corporation, Part I of which covered "To the Close of the Rectorship of Dr. Inglis, A. D. 1788." "Apostolic and Modern Missions," as treated by Rev. Chalmers Martin, belonged to the "Students' Lectures on Missions" of Princeton Theological Seminary. "Christianity and the Social State" were discussed by G. Claude Lorimer; William Riley Halstead found "Christ in the Industries"; and "The Gate called Beautiful: An Institute of Christian Sociology," by Edward A. Warriner, was a practical application of the principles and teachings of the Christian religion along sociological lines. "Jewish Religious Life after the Exile" was described by Thomas Kelly Cheyne in the series of "American Lectures on the History of Religions"; "Jewish Services in Synagogue and Home" were drawn up by Louis N. Dembitz; and "Kiddush; or, Sabbath Sentiment in the Home," by Henry Berkowitz, D. D., was illustrated by Katherine M. Cohen. "The Jewish Year" was a collection of devotional poems for Sabbaths and holidays throughout the year, made by Alice Lucas. Minot Judson Savage, D. D., defined and amplified what he termed "Our Unitarian Gospel," and "Temple Talks," by Rev. Myron W. Reed, were found to be wholly unsectarian. "Current Questions for Thinking Men" were discussed by Robert Stuart MacArthur from a Baptist standpoint. Woods Hutchinson, M. D., expounded "The Gospel according to Darwin"; Morris Jastrow, Jr., added "The Religion of Babylon and Assyria" to the series of "Handbooks on the History of Religions"; W. Marsham Adams published "The Book of the Master; or, The Egyptian Doctrine of the Light Born of the Virgin Mother"; "Yoga; or, Transformation," by William Joseph Flagg, was a comparative statement of the various religious dogmas concerning the soul and its destiny, and of Akkadian, Hindu, Taoist, Egyptian, Hebrew, Greek, Christian, Mohammedan, Japanese, and other magic, the result of a quarter of a century's research; and from Herman I. Stern we had "The Gods of our Fathers: A Study of Saxon Mythology." A. H. Barrington attempted to prove the "Anti-Christian Cults" devoid of supernatural powers and contrary to the Christian religion, and J. H. Bates discussed "Christian Science and its Problems." J. B. Hogan, D. D., issued a series of "Clerical Studies" for young priests; T. Harwood Pattison wrote on "The Making of the Sermon" for the classroom and the study; and John D. Davis, D. D., prepared "A Dictionary of the Bible." The two volumes of "The Biblical Museum," by James Comper Gray, a collection of notes explanatory, homiletic, and illustrative, forming a complete commentary on the Holy Scriptures, covered respectively "Gospels and Acts" and "Epistles and the Revelation." "Illustrative Notes, 1899," by Jesse Lyman Hurlbut and Robert Remington Doherty, on the International Sunday-School Lessons for the year were issued, as usual. Louis Albert Banks, D. D., devoted a handsome volume to "Immortal Hymns and their Story," and "Sursum Corda" was a book of praise by E. H. Johnson and E. E. Ayres, intended as the new Baptist hymnal; "From Day to Day" and "Cloud Rifts" were compilations by Theodora

Walton Woolsey and George Dalentine Reichel respectively.

Unclassified.—Books not falling strictly under any of the departments of this article, yet deserving of mention, include "The Army and Navy of the United States, 1776-1898," in 25 parts, of which 1-5 were issued during the year; "Military Europe," a narrative of personal observation and personal experience, by Gen. Nelson A. Miles, U. S. A.; the "Text-book of Seamanship," giving the equipping and handling of vessels under sail or steam, for the use of the United States Naval Academy, by Stephen Bleeker Luce, revised by W. S. Benson, and illustrated by S. Seabury; "Points in Minor Tactics," compiled and arranged in an elementary manner for the infantry arm of the National Guard of the United States, by Charles Albert Smylie; and "Ballistic Tables for Direct, Curved, and High-Angled Fire," by James M. Ingalls. "Notes on Military Hygiene for Officers of the Line," by Alfred Alexander Woodhull, went through a new revised and enlarged edition. "Coffee and India-rubber Culture in Mexico," by Matias Romero, was preceded by geographical and statistical notes on Mexico; "Commercial Cuba," a book for business men, by W. J. Clarke, had an introduction by E. Sherman Gould; "Food Products of the World" were reviewed by Mary E. Green, M. D., and the second book of "Great American Industries," by W. F. Rochelan, covered "Products of the Soil." C. P. Brooks treated exhaustively of "Cotton" in its uses, varieties, fibres, structure, cultivation, and preparation for the market, and as an article of commerce, as well as the manufacture of cotton-seed oil and meal and fertilizers, with special reference to cotton growing, ginning, and oil pressing in the United States; "The Cotton Industry: An Essay in American Economic History," by M. B. Hammond, published for the American Economic Association, had Part I devoted to "The Cotton Culture and the Cotton Trade," and Vol. III appeared of "Cotton Spinning," by William Scott Taggart. "Loom and Spindle; or, Life among the Early Mill Girls," by Harriet H. Robinson, had a sketch of "The Lowell Offering" and some of its contributors, and an introduction by Hon. Carroll D. Wright. "Glass Blowing and Working" was a useful little manual by Thomas Bolas, and Walter J. Sykes, M. D., set forth "The Principles and Practice of Brewing." George Edwin Waring, Jr., published a work on "Street Cleaning and the Disposal of a City's Wastes," William Paul Gerhard another on "Sanitary Engineering," and A. Prescott Folwell yet another on "Sewerage," while T. E. Coleman wrote on "Stable Sanitation and Construction." "The Purification of Public Water Supplies" was discussed by John W. Hill, and the "Report on the Investigations into the Purification of the Ohio River Water at Louisville, Ky.," was made by George W. Fuller. "The Story of the Railroad" was written by Cy Warman for "Appletons' Story of the West Series"; Albert B. Herrick wrote on "Modern Switchboards"; "Kilburn's Standard Handbook for Railroad Men," by A. Kilburn, was complete, practical, and instructive; J. W. C. Haldane treated of "Railway Engineering, Mechanical and Rhetorical"; "The Calculus," for engineers and physicists, came from Robert H. Smith, and "A Pocket-Book for Mechanical Engineers" from David Allan Low. D. B. Dixon edited the "Machinists' and Engineers' Pocket Manual"; "A Short Course in Inorganic Qualitative Analysis" for engineering students was prepared by J. S. C. Wells, and "A Handbook of Engineering Laboratory Practice," by Richard Addison Smart. Edward Sherman Gould was responsible for "The Arithmetic of the Steam Engine," Part II of William M.

Gillespie's "Treatise on Surveying," edited by Cady Staley, covered "Higher Surveying." "The Motor-man's Guide" was a practical treatise on street-railway motors, by J. W. Gayetty, and John P. Brooks supplied a "Handbook of Street Railroad Location"; A. W. and Z. W. Daw were authorities upon "The Blasting of Rocks in Mines, Quarries, Tunnels, etc."; Henry O'Connor was the author of "The Gas Engineer's Pocket-Book"; and William E. Gibbs wrote on "Lighting by Acetylene Generators, Burners, and Electric Furnaces." Charles D. Jameson was heard from on "Portland Cement, its Manufacture and Use." "Specifications in Detail" were offered by Frank W. Macey; "A Treatise on Roofs and Bridges," by Edward Albert Bowser, and practical examples from actual work in "The Cofferdam Process for Piers," by Charles Evan Fowler, while "Modern American Dwellings," with constructive details, was anonymous. Oliver Coleman planned "Successful Houses," and William H. Birkmire discussed "The Planning and Construction of High Office Buildings." "Appletons' Cyclopædia of Technical Drawing," embracing the principles of construction as applied to practical design, was edited by William E. Worthen. "A Course in Mechanical Drawing" was offered by John S. Reid, and "Elements of Perspective," by Christine Gordon Sullivan. Herbert S. Wilson was the author of "The Practical Tool-maker and Designer." In the "Garden-Craft Series" we had "The Pruning Book" and suggestions as to "Garden-making," by Liberty Hyde Bailey; Levi R. Taft supplemented his previous work on "Greenhouse Construction" with "Greenhouse Management"; Frederic W. Caird contributed to the "Rural Science Series" a horticultural monograph on "Bush Fruits," and Charles Eliot presented a forestry report on the "Vegetation and Scenery in the Metropolitan Reservations of Boston." Charles F. Wingate asked "What shall our Boys do for a living?" and Henry Hardwicke explained "The Art of getting Rich." "The Twentieth Century Cook-Book" was written by Mrs. C. F. Moritz and Adele Kahn; "Home Economics" was a guide to household management by Maria Parloa. "Catering for Two," by Alice L. James, promised comfort and economy for small households; Mrs. Sarah I. Rorer told everything about "Good Cooking"; and Fannie Merritt Farmer proposed "Chafing-Dish Possibilities." "Etiquette for Americans" purported to be by a woman of fashion. "The Art of Taxidermy" was set forth by John Rowley; "The Practical compounding of Oils, Tallow, and Grease for Lubrication, etc.," by an expert oil-refiner who prefers to remain unknown; and George H. Hurst explained the manufacture of "Soaps." "A Primer of Heraldry for Americans" came from Edward S. Holden, and a "Masonic Guide" from M. L. Young. Mrs. W. Chance prepared "A Book of Cats." "Spirit Slate Writing and Kindred Phenomena" were considered by William E. Robinson, and "New Thought Essays" were by Charles Brodie Patterson. Books more or less humorous in character were "Mr. Dooley in Peace and in War," by Martin Dooley (Peter Dunne Finley); "The Little Lady, Some Other People, and Myself," by Tom Hall; the third series of "Life's Comedy"; and "Cartoons of the War of 1898 with Spain, from Leading Foreign and American Papers." Four handsome octavo volumes contained the "History of the Columbian Exposition," by Dr. Rossiter Johnson. This work is unique among histories of expositions. Heretofore it has been customary simply to print verbatim the reports of each department; but in this instance such reports were used only as material, which has been worked up into a readable narrative, with the addition of picturesque and

critical chapters written by several experts. The whole is illustrated with more than a thousand fine pictures. In conclusion we had "Appletons' Annual Cyclopædia for 1897," being the twenty-second volume of its issue.

Voyages and Travels.—"The Philippine Islands and their People" were prominent in the minds of the American people during the year, and a record of personal observation and experience among them by Prof. Dean C. Worcester, accompanied with a short summary of the more important facts in the history of the archipelago, possessed unusual interest. "Yesterdays in the Philippines," by Joseph Earl Stevens, contained also much information, and yet another volume was "Manila and the Philippines," by Margherita Arlina Hamm. "Cuba and Porto Rico," with the other islands of the West Indies, had their topography, climate, flora, products, industries, cities, people, and political conditions thoroughly gone over by Prof. Robert T. Hill, and C. H. Rector, in "The Story of Beautiful Porto Rico," gave a graphic description of the garden spot of the world, illustrated by pen and camera. "Cuba at a Glance" came from Emma B. Kaufman and Annie O'Hagan. A new edition was also issued of "Cuba in War Time," by Richard Harding Davis. "One Way Round the World" was illustrated from photographs, by Delight Sweetser: "Fellow-Travelers," according to Francis E. Clark, D. D., were personally conducted in three continents during a journey of nearly 40,000 miles undertaken in the interest of the Christian Endeavor movement. "Ave Roma Immortalis" was the superb tribute paid by F. Marion Crawford to that "city of the soul." It filled two volumes, beautifully illustrated. George B. Taylor gave an account of "Italy and the Italians," having spent a quarter of a century of missionary life among them; "The Isles and Shrines of Greece" were visited in a sympathetic spirit by Rev. Samuel J. Barrows; Mrs. Susan Arnold Wallace (Mrs. Lew Wallace) sailed delightfully "Along the Bosphorus"; and "A Cruise under the Crescent, from Suez to San Marco," was made by Charles Warren Stoddard. "Roundabout Rambles in Northern Europe" were described by Charles F. King, and "Halcyon Days in Norway, France, and the Dolomites," by William Bement Lent. "Glimpses of England: Social, Political, Literary," were published by Rev. Moses Coit Tyler; Archer M. Huntington gave us the benefit of a "Note-Book in Northern Spain"; Mrs. Miriam Coles Harris, the author of that delightful old novel "Rutledge," made us intimately acquainted with "A Corner of Spain"; and "Witch Winnie in Spain" closed the wanderings of that young lady which have been vouchsafed us by Mrs. Elizabeth Williams Champney. "Where Ghosts Walk" was the somewhat eerie title to descriptions of the haunts of familiar characters in history and literature by Mrs. Mary Virginia Hawes Terhune (Marion Harland), and from William L. Terhune we had "My Friend the Captain; or, Two Yankees in Europe," a descriptive story of a tour of Europe. "Vacation Days in Hawaii and Japan" were described by Charles M. Taylor. "Eastern Journeys," by Charles Anderson Dana, contained some notes of travel in Russia, in the Caucasus, and to Jerusalem. John D. Ford in "An American Cruiser in the East" made travels and studies in the far East, the Aleutian Islands, Bering Sea, eastern Siberia, Japan, Korea, China, Formosa, Hong-Kong, and the Philippine Islands; "By Way of Cape Horn," the record of four months in a Yankee clipper, by Paul Eve Stephenson, was illustrated by the author, and Rev. George Hughes Hepworth went "Through Armenia on Horseback" to discover the true cause of the Armenian massacres. The life of "Persian

Women" was described by Rev. Isaac Malek Yonan. "Corona and Coronet," by Mrs. Mabel Loomis Todd, was the title of the narrative of the Amherst eclipse expedition to Japan in Mr. James's schooner-yacht, "Coronet" to observe the sun's total obstruction, Aug. 9, 1896; "Korean Sketches" were published by Rev. James S. Gale; and Charles M. Taylor spent "Vacation Days in Hawaii and Japan." Walter Scott Perry visited "Egypt the Land of the Temple Builders," and Henry M. Stanley in "Through South Africa" gave an account of his recent visit to Rhodesia, the Transvaal, Cape Colony, and Natal, reprinted from the journal "South Africa," while "Africa, its Partition and its Future," which he wrote in collaboration with several other writers, had an introduction by Harry Thurston Peck. Two volumes are filled with Robert E. Peary's narrative of life and work, "Northward over the Great Ice," along the shores and upon the interior ice cap of northern Greenland during the years 1886-'91 and 1891-'97. "Across the Sub-Arctics of Canada," by J. W. Tyrrell, described a journey of 8,200 miles by canoe and snowshoes through the barren lands, undertaken for the Canadian Government in 1894, and "Canadian Folk-Life and Folk-Lore" were the theme of William Parker Greenough (G. de Montauban). "Alaska" had its history, climate, and natural resources set forth by its former Governor, A. P. Swineford; "The Rainbow's End: Alaska," was by Alice Palmer Henderson; and a new edition was also issued of "Appletons' Guide-Book to Alaska and the Northern Coast," by Elizabeth R. Seidmore, with a chapter on the Klondike. "A Mile of Gold," by William M. Stanley, told of strange adventures on the Yukon, which the author visited to his profit, and gave good advice to prospectors, while Eleanor Cecilia Donnelly accompanied "A Klondike Picnic" with genuine letters from the Alaskan gold fields. "Historic Pilgrimages in New England" were described by Edwin Munroe Bacon, and "Historic Homes of the Southwest Mountains, Virginia," by E. C. Mead. "Mr. Eagle's U. S. A. as seen in a Buggy Ride of 1,000 Miles from Illinois to Boston" was by John Livingstone Wright and Mrs. Abbie Scates Ames. "Afloat on the Ohio," by Reuben Gold Thwaites, outlined a historical pilgrimage of 1,000 miles in a skiff from Redstone to Cairo, and "Across the Everglades," a canoe journey of exploration, was illustrated by the author, Hugh L. Willoughby, from photographs by himself. "A World of Green Hills," by Bradford Torrey, contained observations of Nature and human nature in the Blue Ridge, and Edith M. Nicoll printed "Observations of a Ranchwoman in New Mexico." "Picturesque Mexico," by Marie Robinson Wright, was written from data collected under the special patronage of the Mexican Government, and from Matias Romero we had "Geographical and Statistical Notes on Mexico," the third of his important books upon his country published during the year. "Sealth the City by the Inland Sea," by Elizabeth H. Calvert, made us thoroughly acquainted with Seattle, Wash., and Agnes Repplier's presentation in prose of "Philadelphia" was illustrated by Ernest C. Peixotto. Frank G. Carpenter conducted "Travels through North America with the Children" and "Travels through Asia" in the same company, and also wrote on "North America" for "Carpenter's Geographical Reader." New editions were sent out of Appletons' "General Guide to the United States," "Canadian Guide-Book," "Handbook of Summer Resorts" and "Dictionary of New York." The "Century Atlas of the World" was edited by Benjamin E. Smith.

The following are the figures of book production

during the year, as compared with those of 1897, from the columns of the "Publishers' Weekly":

CLASSIFICATION.	1897.		1898.	
	New books.	New editions.	New books.	New editions.
Fiction	718	156	724	181
Law	474	85	417	39
Theology and religion	447	45	406	40
Education and language	365	36	354	12
Juvenile	319	50	356	17
Literary history and miscellany	261	154	313	19
Poetry	180	67	268	15
History	189	49	244	38
Political and social science	175	21	243	14
Biography, memoirs	193	12	172	23
Medical science, hygiene	129	24	143	45
Physical and mathematical science	166	22	143	31
Description, travel	149	20	134	33
Fine arts and illustrated books	103	31	144	19
Useful arts	96	14	106	6
Mental and moral philosophy	70	6	45	6
Domestic and rural	52	5	40	3
Sports and amusements	33	5	32	10
Humor and satire	17	5	18	2
Totals	4,171	757	4,332	554
		4,171		4,332
		4,928		4,886

LITERATURE, BRITISH, IN 1898. The excitement incident to wars and rumors of wars told more effectually upon the production of books in Great Britain than in our own country. The record of 1897 showed a total of 7,926 new books and new editions published in England, while that of 1898 was 7,516, a decline of 410. And yet this number exceeded the total production of the United States by 2,630. Of the 7,516 sent from the press, 6,006 were new books, whereas 1897 showed 5,244, while the figures for new editions stood 1,508 in 1898 against 1,682 in 1897. As compared with 1896, however, there is an increase of nearly 1,000 volumes. Nearly all the decrease in new books is found to be in the case of novels and stories for the young. Of these, 1,960 were published in 1897, and but 1,758 in 1898. There was also a great decrease in the department of *belles-lettres*, essays, etc., and there were fewer books of political economy, art, science, and travel. More law books were issued, and more new educational works. Poetry fresh from the pen appeared in nearly the same number of volumes as last year, while the issue of new editions was considerably less. The large increase in the number of miscellaneous works was accounted for by the increased number of pamphlets. The dignity and solidity of English literature have of late years been marred by a trivial and prurient fiction, but this year there was a marked promise of a return to a simpler and purer standard, and the sex novel tends to become a thing of the past.

Biography.—Several delightful books of autobiography and reminiscences were published during the year. Among them are to be noted "Auld Lang Syne," by Prof. F. Max Müller; "My Life in Two Hemispheres," by Sir Charles Gavan Duffy; "Collections and Recollections," by G. W. E. Russell, who announced himself modestly on the title page merely as "one who has kept a diary"; Part II of "Memorials, Personal and Political, 1865-1895," in two volumes, by Roundell Palmer, Earl of Selborne, whose "Letters to His Son on Religion" were also collected; two more volumes of "Notes from a Diary," by Sir Mountstuart Grant Duff, covering the years 1873-1881; "Many Memories of Many People," by Mrs. M. C. M. Simpson, the daughter of Nassau Senior, who, from a child, knew most of the people worth knowing in the early part of the century and writes of them charm-

ingly; "Social Hours with Celebrities," by the late Mrs. W. Pitt Byrne, the author of "Gossip of the Century," edited by her sister, Mrs. R. H. Busk, in two volumes; "The Journals of Walter White," Assistant Secretary to the Royal Society, full of conversations at Carlyle's, Tennyson's, and elsewhere, which had a preface by his brother, William White; "Reminiscences," by Miss M. Betham-Edwards, and "Phases of My Life," by Dean Francis Pigou, full of the raciest anecdotes. Sir Herbert Maxwell published a memoir of "The Honorable Sir Charles Murray," the accomplished diplomatist, scholar, traveler, courtier, and sportsman; "Memoirs of the Life and Correspondence of Henry Reeve," by John Knox Laughton, in two volumes, brought us in contact with many noted men, besides the genial subject, the editor of "Greville's Memoirs" and molder of public opinion through the press; the "Autobiography and Letters of Dean Merivale" were edited by Judith Anne Merivale, and "Memoirs of John A. Heraud," which we owe to Edith Heraud, his daughter, recalls the correspondence of Wordsworth and Southey, and yet another literary biography was that of "James Hain Friswell," by his daughter, Mrs. Ambrose Myall. "Personal Forces of the Period" were agreeably reviewed by T. H. S. Escott, and "Newman Hall: An Autobiography," details the experiences of the great dissenting minister. The death of Mr. Gladstone brought forth many sketches and memoirs: "The Story of Gladstone's Life," by Justin McCarthy was revised and enlarged, carrying the narrative to the close of the illustrious career; "Mr. Gladstone: A Monograph," came from Sir Edward W. Hamilton, well qualified for the task he undertook by an intimacy of nearly forty years; "Gladstone, the Man," a non-political biography, by D. Williamson; "William Ewart Gladstone: His Characteristics as Man and Statesman," by James Bryce, and "Talks with Mr. Gladstone," by Hon. Lionel A. Tollemache. A "Life of William Ewart Gladstone," edited by Sir Wemyss Reid, was issued in twelve monthly parts. One of the striking books of the year was "The Life of Charles Stewart Parnell," in two volumes, by R. Barry O'Brien, giving an admirable picture of the man and entering deeply into the political situations with which his name is identified. "Pitt: Some Chapters of His Life and Times," by the Hon. Edward Gibson, Lord Ashbourne, threw light on the private character of the great statesman, and supplemented admirably the more solid biographies. To political biography belong also "The Autobiography and Political Correspondence of Augustus Henry, Third Duke of Grafton," edited by Sir William R. Anson from hitherto unpublished documents in the possession of the family, and "The Life of Francis Place," by Graham Wallas, and "The Life and Letters of Henry Cecil Raikes, late Her Majesty's Postmaster General," for which we are indebted to Henry St. John. "Sir Henry Lawrence, the Pacifactor," by Lieut.-Gen. J. J. McLeod Innes, appeared in the "Rulers of India Series," and from Capt. L. J. Trotter we had "The Life of John Nicholson, Soldier and Administrator," based on private and hitherto unpublished documents, which threw new light on the stormy days of the mutiny, again revived in "General Sir Richard Meade and the Feudatory States of Central and Southern India," by Thomas Henry Thornton, and "The Recollections of a Highland Subaltern," by W. Gordon-Alexander. Sir Richard Temple contributed an introduction to the highly interesting and picturesque "Memoirs of Alexander Gardner, Colonel of Artillery in the Service of Maharaja Ranjit Singh," edited by Major Hugh Pearse. "A Memoir of Major-General Sir Henry Creswicke Rawlinson," by

his brother, Canon George Rawlinson, told at length the story of his famous climb up the rock of Behistun and the consequent revelation of a new science. Two volumes of absorbing interest were devoted by Lieut.-Col. G. F. R. Henderson to "Stonewall Jackson and the American Civil War," and Sir Charles Alexander Gordon published "The Recollections of Thirty-nine Years in the Army" of his country. "A Prisoner of France" contained the reminiscences of the late Capt. Charles Boothby; "A Middy's Recollections, 1853-1860," came from Rear-Admiral the Hon. Victor Montagu; "The Life of Vice-Admiral Lord Lyons," by Capt. S. Eardley-Wilmot, R. N., gave an account of naval operations in the Black Sea and the Sea of Azov, 1854-'56; Vice-Admiral P. H. Colomb was the author of "Memoirs of Admiral the Right Hon. Sir Astley Cooper Key," and "Admiral Duncan" was commemorated by his great-grandson, Earl Camperdown. "Nelson and His Times" was the theme of Lord Charles Beresford and Mr. H. W. Wilson. To contemporary biography belongs "Paul Kruger and His Times," by Francis Reginald Statham, and "Leo Tolstoy: The Grand Mujik," a study in personal evolution, by G. H. Perris. "H. R. H. The Prince of Wales" appeared anonymously and gave a complete account of his career, including his birth, education, travels, marriage, and home life, and philanthropic, social, and political work. "Letters of Princess Elizabeth of England," an aunt of Queen Victoria, written for the most part to Miss Louisa Swinburne, were edited by that lady's great-nephew, Philip C. Yorke. "The Two Duchesses, Georgiana, Duchess of Devonshire, and Elizabeth, Duchess of Devonshire," was edited by Vere Foster; "Memoirs of Lady Russell and Lady Herbert, 1623-1723," were compiled from original family documents by Lady Stepney; Lady Strachey edited "Memoirs of a Highland Lady," the autobiography of Elizabeth Grant, of Rothiemurchus, 1797-1830, and Lady Newdigate-Newdegate, in "The Cheverels of Cheverel Manor," presented us with the originals of "Mr. Gilfil's Love Story" as told by George Eliot. Oscar Browning contributed lives respectively of "Peter the Great" and "Charles XII of Sweden"; "Charles the Great" was the subject of a monograph by Thomas Hodgkin; "The Great Lord Burghley" purported to be a study in Elizabethan statecraft by Martin A. S. Hume, and "Charles I" was the theme of the last work of Sir John Skelton. "Henry of Guise and Other Portraits" came from H. C. Macdowall. From Archibald Forbes came "The Life of Napoleon the Third," "Michel de Montaigne," by M. E. Lowndes, was a biographical study. Vol. III of "Annals of a Publishing House: William Blackwood and His Sons," was by Mrs. Gerard Porter, and was devoted to her father, John Blackwood. Henry F. Mackenzie Bell was the author of a biographical and critical study of "Christina Rossetti," and E. V. Lucas gave us "Charles Lamb and the Lloyds." George Gissing made a critical study of "Charles Dickens" for the "Victorian Era Series," another issue of which was "John Bright," by C. A. Vince. From Mrs. Anne Ritchie (his daughter) we had the nearest approach we will ever have to a biography of Thackeray in the shape of biographical introductions to the edition of his "Works" in thirteen volumes, inaugurated during the year, nine of which were sent from the press. The correspondence of "Robert Burns and Mrs. Dunlop," now published in full for the first time, with elucidations by William Wallace, filled two volumes of great literary interest, and "The Life of George Thomson, the Friend of Burns," was written by J. Cuthbert Hadden. William Hale White made "An Examination of the Charge of

Apostasy Against Wordsworth"; two volumes contained the "Letters and Journals" of Lord Byron, edited by Rowland E. Prothero in the new edition of his "Works"; while from D. Guido Biagi we had the story of "The Sunset of Shelley" told in all its sadness. Sidney Lee was the author of "A Life of William Shakespeare," in which he exploited a new theory with regard to the "Sonnets." David Wilson, in "Mr. Froude and Thomas Carlyle," contended that great injustice had been done to the latter by the biography, which he nevertheless considers Froude's greatest work. "The Books of William Morris Described," by H. Buxton Forman, contained biography in addition to bibliography. "W. G. Wills, Dramatist and Painter," came from Freeman Wills, and "Social Pictorial Satire," by George Du Maurier, contained reminiscences and appreciations of English illustrators of the past generation, and was, moreover, in part autobiographical. "Robert Louis Stevenson" was the theme of Margaret Moyes Black in the "Famous Scots Series," and Miss E. Blantyre Simpson gave us "Robert Louis Stevenson's Edinburgh Days." In the standard series there appeared fewer volumes than usual. Among them we had "John and Sebastian Cabot: The Discovery of North America," by C. Raymond Beazley; "Edward Gibbon Wakefield: The Colonization of South Australia and New Zealand," by Richard Garnett, and "Sir Thomas Maitland: The Mastery of the Mediterranean," by Walter Frewen Lord, all in the "Builders of Greater Britain Series"; "Sir James Young Simpson and Chloroform (1811-1870)," by Gordon H. Laing; "Sir Benjamin Collins Brodie," by Timothy Holmes, and "William Stokes, His Life and Work, 1804-1878," by his son, William Stokes, in the "Masters of Medicine Series"; "Saladin and the Fall of the Kingdom of Jerusalem," the sole contribution to the "Heroes of the Nations Series," which was from the pen of Stanley Lane Poole, and "Mirabeau," the only addition to the "Foreign Statesmen Series," by Paul Ferdinand Willert. In the "Series of Famous Scots," "James Thomson" was by William Bayne; "Robert Fergusson," by A. B. Grosart; "Mungo Park," by T. Banks MacLachlan; "William Dunbar," by Oliphant Smeaton; "Thomas Reid," by Alexander Campbell Fraser; "Sir William Wallace," by A. F. Murison, and "David Hume," by Henry Calderwood. "Pasteur," by Percy Faraday Frankland and Mrs. Percy Faraday Frankland, appeared in the "Century Science Series," and from Dr. J. Rutherford we had a history of "William Moon, LL. D., and His Work for the Blind." Two volumes contained "The Life and Letters of Sir George Saville, Bart., First Marquis of Halifax," with a new edition of his works, by Miss H. C. Foxcroft; "Brief Lives, Chiefly of Contemporaries," set down by John Aubrey, between the years 1669-1696, were edited from the author's MSS. by Andrew Clark, and from Claud Nugent we had a "Memoir of Robert, Earl of Nugent." W. A. S. Hewins edited with an introduction and notes "The Whitefoord Papers," being the correspondence and other manuscripts of Col. Charles Whitefoord and Caleb Whitefoord, from 1739 to 1810, and Lady Gregory performed a similar service for "Mr. Gregory's Letter Box, 1813-1830." "The Autobiography of Arthur Young" was edited by Miss M. Betham-Edwards, with selections from his correspondence. W. P. Jervis paid a centenary tribute to his father, "Thomas Best Jervis"; "A Memoir of Baron Bramwell" came from Charles Fairfield, and Augustine Birrell prepared a biographical sketch of "Sir Frank Lockwood." "My Inner Life," by John Beattie Crozier, claimed to be a chapter in personal evolution and an autobiography; "Old World Memories" came from Edward

L. Temple, and "Reminiscences of Irish Life and Character" were published by Michael Macdonagh. John Atkinson Hobson studied "John Ruskin as a Social Reformer," and Edwin Hodder made a similar study of "The Seventh Earl of Shaftesbury." Henry B. Irving attempted a justification of the "Life of Judge Jeffreys." In the "Great Educators Series" we had "Rousseau and Education According to Nature," by Thomas Davidson. From George R. Parkin we had two instructive volumes devoted to the life, diary, and letters of "Edward Thring, Headmaster of Uppingham School," and "The Life of Henry Morley" was written by his son-in-law, Henry Shaen Solly. "The Life and Letters of Lewis Carroll (Rev. C. L. Dodgson)" came from his nephew, S. D. Collingwood. To religious biography belongs "The Life of Henry Drummond," by George Adam Smith, and "The Ideal Life," a volume of addresses by Drummond, hitherto unpublished, also contained memorial sketches by Ian Maclaren and William Robertson Nicoll. Vol. I of "The Autobiography of Charles H. Spurgeon," compiled from his diary, letters, and records, by his wife and his private secretary, covered the period from 1834 to 1854; "The Life Work of Edward White Benson, D. D.," the late Archbishop of Canterbury, was reviewed in unpretentious fashion by J. A. Carr; Canon Rawnsley contributed a "Memoir of Henry Whitehead, 1825-1896"; "Joseph Arch: The Story of His Life Told by Himself," was edited with a preface by the Countess of Warwick; "Bishop Walsham How" was the subject of a memoir by his son, F. D. How; another son, A. W. W. Dale, wrote "The Life of R. W. Dale, of Birmingham," and "Henry Robert Reynolds, D. D.: His Life and Letters," was edited by his sisters. A new series of "Heroes of the Reformation" was inaugurated with "Martin Luther," by Dr. H. Eyster Jacobs, the succeeding volume being given to "Philip Melancthon, the Protestant Preceptor of Germany" by James W. Richard. "St. Thomas of Canterbury: His Death and Miracles," were the theme of Edwin A. Abbott, and "The Life of Saint Hugh of Lincoln" was written by Herbert Thurston, S. J. Four "Historic Nuns" were commemorated by Bessie R. Belloc. "Kings of the Hunting Field" was the title of memoirs and anecdotes of distinguished masters of the hounds and other celebrities of the chase, by Thormanby; "Reminiscences of the Course, the Camp, the Chase" came from "a gentleman rider," Col. R. F. Meysey-Thompson, and "Reminiscences of Frank Gillard and the Belvoir Hounds," edited by Cuthbert Bradley, were fully illustrated. A series of biographies of "The Royal Household" during the sixty years of the Queen's reign was the work of W. A. Lindsay. Vols. LIV, LV, LVI, and LVII, of the "Dictionary of National Biography," edited by Sidney Lee, reached "Tom-Tytler."

Essays.—In England there is complaint that this form of writing, admittedly one of the most delightful in literature, seems to be going out of fashion. Not many important volumes are to be recorded in 1898, but under this head are included many books of general literature. Two volumes of "Studies of a Biographer" were contributed by Leslie Stephen, in reality a collection of essays; "Affirmations," by Henry Havelock Ellis, was a series of essays on Nietzsche, Casanova, Zola, and others; "Angels' Wings" was the title of others on art and its relation to life, by Edward Carpenter; "Essays at Eventide" came from Thomas Newbigging; "Studies in Little-known Subjects," from C. E. Plumptre; "Essays, Mock Essays, and Character Sketches" were reprinted from the "Journal of Education," with original contributions by the Hon. Lionel A. Tollemache and others; and "Reviews and Essays

in English Literature" were from the pen of Rev. Duncan C. Tovey. Henry Austin Dobson was represented by "Miscellanies," W. Basil Worsfold expounded "The Principles of Criticism," "A Short History of English Literature" was written by George Saintsbury, and Stopford A. Brooke considered "English Literature from the Beginning to the Norman Conquest." Richard Garnett added "A History of Italian Literature" to the "Short Histories of the Literatures of the World Series," another issue of which was "A History of Spanish Literature," by James Fitzmaurice-Kelly, and David Hannay discussed "The Later Renaissance" in "Periods of European Literature." J. Scott Clark wrote on "The Study of English Prose." "A Literary History of India," by Robert W. Frazer, inaugurated the new "Library of Literary History," and was an eminently scholarly and valuable work. "The First Philosophers of Greece" were translated by Arthur Fairbanks, along with important passages bearing upon them from the works of Plato, Aristotle, and others. Another work of scholarship, both vast and complete, was the translation by J. G. Frazer, of "Pausanias's Description of Greece," with a commentary which filled four of the six volumes which contained the work. The existence of an edition so highly lauded as this has been rendered possible, it may be added, by the excavations of the last ten years. The recently discovered odes of "Bacchylides" were rendered accessible to "lovers of poetry not readers of Greek," by E. Poste. "The Attic Theater," by A. E. Haigh, gave a description of the stage and theaters of the Athenians and of the dramatic performances at Athens, and from the same author we had "The Tragic Drama of the Greeks," accompanied with illustrations. Catherine Mary Phillimore, the author of "Studies in Italian Literature," gave us a study of "Dante at Ravenna"; Edmund G. Gardner wrote of "Dante's Ten Heavens"; Rosemary Cotes, in "Dante's Garden," enumerated the flowers mentioned by Dante; and from Paget Toynbee we had "A Dictionary of Proper Names and Notable Matters in the Works of Dante." New criticism of Shakespeare appeared in George Wyndham's edition of the "Poems" of the great dramatist, and Edwin Reed prepared the "Brief for Plaintiff" in the case of "Bacon *versus* Shakespeare," while Israel Gollancz devoted a volume to "Hamlet in Iceland." "The King's Quhair and the New Criticism" was reviewed by Robert Sangster Rait. "Types of Scenery and their Influence on Literature" was the subject of the Romanes Lecture by Sir Archibald Geikie, in which exact scientific knowledge was united with adequate literary taste. J. Baly published Vol. I of "Eur-Aryan Roots," with their English derivatives and the corresponding words in the cognate languages compared and systematically arranged; Lieut.-Col. C. R. Conder wrote on "The Hittites and their Language," largely a study in philology; and Robert Brown made a study of "Semitic Influence in Hellenic Mythology." "The Jew, the Gypsy, and El Islam" was the title of three essays by the late Capt. Sir Richard F. Burton, edited by W. H. Wilkins, and "Gypsy Folk-Tales" were collected by Francis Hindes Groome in support of a theory of gypsies. "Tom Tit Tot," by Edward Clodd, traced the story of Rumpelstiltskin through its English variants. J. Starkie Gardner described "Armor in England from the Earliest Times to the Seventeenth Century"; Charles Oman published Vol. II of "A History of the Art of War," covering "The Middle Ages"; "Law and Politics in the Middle Ages" were the theme of Edward Jenks, and "The Universities of Europe in the Middle Ages" that of Hastings Rashdall. "Old English Social Life as Told by the Parish

Register" came from T. F. Thiselton Dyer, the author of "Church Lore Gleanings"; "Records of Old Times: Historical, Social, Political, Sporting, and Agricultural," from J. K. Fowler (Fowler); "Life in an Old English Town," by Mary Dormes Harris, appeared in the "Social England Series," and Vol. II was issued of "A Calendar of the Inner Temple Records," edited by F. A. Inderwick, covering the period between 1603 and 1660. "Curiosities of a Scots Charta Chest," edited by the Hon. Mrs. Atholl Forbes, and "The Grange of St. Giles," by Mrs. J. Stewart Smuth, dealt with two Edinburgh mansions; "Scottish Life and Humor" were discussed by William Sinclair, and Capt. E. C. Ellice wrote on "Place-Names in Glengarry and Glenquoich." Ernest Law wrote "A Short History of Hampton Court," condensed from his monumental and valuable "History of Hampton Court Palace," and Edward Robins told of "The Palmy Days of Nance Oldfield." "Elizabeth and her German Garden," by Benjamin Kidd, contained charming studies of Nature, while "By Roadside and River" was the title of gleanings from Nature's fields by H. Mead-Briggs. James E. Whiting rambled "Where Wild Birds Sing," and J. Arthur Gibbs told alluringly of "A Cotswold Village." Henry B. Wheatley wrote on "Prices of Books" for "The Library Series," and "Pages and Pictures from Forgotten Children's Books" came from A. W. Tuer. "Unaddressed Letters," edited by Frank Athelstane Swettenham, contained "generous self-revelation of uncommon candor in a form sufficiently unfamiliar to preserve the charm of novelty," and from Jerome K. Jerome we had "The Second Thoughts of an Idle Fellow." "Leaders in Literature," by P. Wilson, was a collection of short studies of great authors in the nineteenth century.

Fiction.—Several novels of 1898 possessed unusual merit. "Helbeck of Bannisdale," by Mrs. Humphrey Ward, and "Evelyn Innes," by George Moore, dealt with the deeper questions of life, and in the literary world an event of great importance was the appearance of "Aylwin," the romance which Theodore Watts-Dunton had so long withheld. Its freshness, its pure romance, entitled it to a high and permanent place in literature, aside from the portraiture it was held to contain of that circle of the author's friends which comprised all that was most interesting in the literary and artistic worlds. To the world of pure romance belonged also "The Forest Lovers," by Maurice Hewlett, one of the marked successes of the year, and "The Sundering Flood," the last tale of William Morris. Two other novels that created much comment were "Concerning Isabel Carnaby," by Ellen Thornycroft Fowler, and "The Open Question," by Elizabeth Robins (C. E. Raimond). One of the books which had the widest sale was "The Day's Work," a collection of twelve short stories of Rudyard Kipling, and "Dreamers of the Ghetto," by Israel Zangwill, was pronounced by critics a notable book in its portrayal of the characteristics of the Jew. Historical novels were numerous, as usual. "The Admiral: A Romance of Nelson in the Year of the Nile," came from Douglas Sladen; "The Castle Inn" and "Shrewsbury" from Stanley J. Weyman; "Across the Salt Sea," a romance of the War of Succession, from John Bloundell Burton, who published also "The Scourge of God," a romance of religious persecution under Louis XIV of France; "The Pride of Jennico," by Agnes and Egerton Castle, appeared early in the year, and was one of the favorite books; "The Battle of the Strong" was a romance of two kingdoms, by Gilbert Parker, and from S. R. Crockett we had "The Red Axe" and "The Standard Bearer." "John Splendid," by Neil Munro, told the tale of a poor gentleman and the little wars of Lorn, pre-

senting a strong picture of the Marquis of Argyll; "John Gilbert, Yeoman," was a romance of the Commonwealth, by R. G. Soans, and "In the Shadow of the Three," by Blanche Loftus Tottenham, carried us to Venice in the latter part of the eighteenth century. "The Vintage" was a romance of the Greek War of Independence, by Edward F. Benson, who published also "The Money Market," more in line with his previous work in its cynicism concerning woman; while "The Broom of the War God," by Henry Noel Brailsford, was a story of the recent war between the Greeks and Turkey. Sir Walter Besant published "The Changeling," and Anthony Hope (Anthony Hope Hawkins) "Simon Dale," a story of the days of Charles II and Nell Gwynn, in which Louis le Grand also figures, and "Rupert of Hentzau," a sequel to "The Prisoner of Zenda," to which, however, it was much inferior. Henry Seton Merriman (Hugh S. Scott), who scored such a success last year with "In Kedar's Tents," touched upon the corruptions of English political life in "Roden's Corner," his only novel published during the year; "Doctor Thorne," by H. Rider Haggard, had vaccination for its theme; George Gissing was represented by "The Town Traveler," and Richard Le Gallienne by "The Romance of Zion Chapel," pessimistic in tone, and Benjamin Swift (W. R. Paterson) by "The Destroyer," which in his opinion was the passion of love. "Her Memory" was tenderly and touchingly commemorated by Maarten Maartens (J. M. W. van der Poorten Schwartz), and "Wild Eelin" was the last of William Black's novels, full as ever of the wild beauty of Scottish scenery. "A Voyage of Consolation," by Mrs. Sara Jeannette Cotes (Mrs. Everard Cotes), claimed to be in the nature of a sequel to the experiences of "An American Girl in London," and "Poor Human Nature" was a musical novel by Elizabeth Godfrey. From Maxwell Gray (Mrs. M. J. Tuttiel) we had "The House of Hidden Treasure" and "Ribstone Pippins," the latter a love-story of Devon; W. Pett Ridge published "Mord Em'ly" and "By Order of the Magistrate"; David Christie Murray, "This Little World"; Frank Frankfort Moore, "The Millionaires" and "The Fatal Gift," presumably of beauty, possessed by the famous Gunning sisters whom the author chose for the heroines; W. E. Norris wrote but one novel, "The Widower"; A. Conan Doyle but one, "The Tragedy of the 'Korosko'"; and W. Clark Russell also was represented but by one sea story, "The Romance of a Midshipman." "A Forgotten Sin" and "The Impediment" were by Dorothea Gerard (Madame Longard de Longgarde); "A Passionate Pilgrim," by Percy White; "Sunset," by Beatrice Whitby; and "The Lust of Hate," by Guy Boothby, while from Ernest Hornung we had "Young Blood" and "Some Persons Unknown," the last a collection of short stories of London literary life and the Australian bush. "The Looms of Time" came from Mrs. Hugh Fraser; "The Incidental Bishop" from Grant Allen; "Dicky Monteith" from T. Gallon; "Materfamilias" from Mrs. Ada Cambridge Cross; "Poor Max" from Mrs. Kathleen Mannington Caffyn (Iota); "The Crook of the Bough" from Mrs. Henry Norman (Ménie Muriel Dowie); "A Valuable Life" and "Margaret Wynne" from Adeline Sergeant; "Torn Sails," a tale of a Welsh village, from Allen Raine, the author of "Mifanwy"; "The Lake of Wine" from Bernard Capes; "The Lady of Castell March" from Owen Rhoscomyl; "A Fiery Ordeal" from Mrs. Jessie Fraser Couvreur (Tasma), and "The Potentate" from Frances Forbes Robertson. "John of Strathbourne" was by R. D. Chetwode; "Miss Balmaine's Past" and "Peggy of the Bartons," by Mrs. Bertha M. Croker; "Wheat in the Ear," by Alien, "Fighting for the King," by W.

G. Tarbets, "The Journalist," by C. F. Keary, "The Confessions of Stephen Whapshare," by Emma Brooke, and "The World's Rough Hand," by H. Phelps Whitmarsh. "Tekla" was a romance of love and war, by Robert Barr; Rosa Nouchette Carey told the story of "Mollie's Prince," and Robert S. Hitchens that of "The Londoners"; literary London was the theme of "Scribes and Pharisees," by William Le Queux; "His Grace o' the Gunne" and "The Minister's Conversion" came from I. Hooper, and "Nanno," a pathetic Irish story, from Rosa Mulholland. "The Nigger of the Narcissus" was a tale of the sea, by Joseph Conrad, who told also "Tales of Unrest"; J. Marshall Mather, the author of "At the Sign of the Wooden Shoon," gave us "By Roaring Loom," a masterly description of life among the Lancashire working classes; "The Scourge Stick," according to Mrs. Campbell Praed, kept her heroine in the right path, while "The Cost of her Pride," in another case, was calculated by Mrs. Alexander (Mrs. Annie French Hector). "Sunlight and Limelight" were contrasted by Francis Gribble, and a survival of the sex novel was George Paston's "A Writer of Books." "In High Places" and "Rough Justice" were the ventures of Miss M. E. Braddon in the world of fiction during the year; Fergus Hume was thrilling as ever in his narration of the adventures of the leader of "The Rainbow Feather," while John Strange Winter (Mrs. H. E. V. Stannard) elected to chronicle "The Peacemakers." M. E. Francis (Mrs. M. E. Sweetman Blundell) described "The Duenna of a Genius," and "The Gunrunner," by Bertram Mitford, was a story of South Africa and the Zulu war. "A Statesman's Chance" was shown by Joseph F. Charles, and William Somerset Maugham described "The Making of a Saint." "The Romantic History of Robin Hood" was retold by Barry Pain. Among volumes of short stories may be mentioned "To be Read at Dusk, and Other Stories, Sketches, and Essays," by Charles Dickens, nearly fifty in all, discovered by F. G. Kilton, which had hitherto escaped the notice of bibliographers, and now first collected; "Afterwards, and Other Stories," by Ian Maclaren; "The Keeper of the Waters," by Morley Roberts; "From the East to the West," by Jane Barlow; "Weeping Ferry, and Other Stories," by Margaret L. Woods; "Traits and Confidences," by Emily Lawless; "The Mess Deck," stories of the Royal Navy; "The Golfclide, and Other Tales of the Fair Green," by W. G. Van Tassel Sutphen; "King of Circumstance," by Edwin Pugh; and "Life is Life, and Other Tales and Episodes," by Miss Gwendoline Keats (Zack). The story of "Owd Bob, the Grey Dog of Kenmuir," by Alfred Ollivant, was a particularly pretty juvenile book. "To Arms," by Andrew Balfour, was also suited to young readers, and "Off to the Klondyke; or, A Cowboy's Rush to the Gold Fields," by William Gordon Stables, M. D., was illustrated by Charles Whympers. "The Stevenson Reader" was edited by Lloyd Osbourne. A new edition of "The Works of Henry Fielding" was begun, and the Thornton edition of the "Novels of the Sisters Brontë" was put through the press, as well as a ten-volume edition of "The Novels of Jane Austen."

Fine Arts.—Several works of remarkable excellence are to be noted in 1898. "Modern Architecture," a book for architects and the public, by H. Heathcote Statham, criticised the leading modern buildings of Europe and the United States, and from the same author we had a review of "Architecture Among the Poets." "Gainsborough and His Place in English Art" came to us from Walter Armstrong and was superbly illustrated; "Memorials of an Eighteenth-Century Painter (James Northcote)," by Stephen Gwynn, and "George

Morland, and the Evolution from Him of Some Later Painters," by J. T. Nettleship, were special studies, and from Algernon Graves came a magnificent volume devoted to "Sir Joshua Reynolds." Another was "Drawings and Studies in Pencil, Chalk, and Other Materials," by the late Lord Leighton, which had a preface by S. P. Cockerell, and contained 40 facsimiles, mostly of the same size as the original drawings. "The Pictures of Armitage, R. A.," were considered anonymously; and A. Rischgitz published "Drawings of Constable." The first of three parts of "Van Dyck's Pictures at Windsor Castle," historically and critically described by Ernest Law, was issued, and from the same author we had "The Royal Gallery of Hampton Court Illustrated" with 100 plates. "A Florentine Picture Chronicle" was the title of a series of 99 drawings by Maso Finiguerra, reproduced from the originals in the British Museum, with a critical and descriptive text by Sidney Colvin, and "In the National Gallery," by Cosmo Monkhouse, covered the Italian schools from the thirteenth to the sixteenth century, with illustrations, while Claude Phillips contributed "Titian: A Study of His Life and Work," and A. Letchford "A Series of Seventy Illustrations to Capt. Sir R. F. Burton's Arabian Nights," with a portrait of the explorer. "Painters and their Works," a dictionary of great artists, by R. N. James, filled three volumes. H. Nisbet was an authority "On Painting in Water Colors"; "Japanese Illustrations," by E. F. Strange, gave a history of wood cutting and color printing in Japan, and "Etching, Engraving, and the Other Methods of Printing Pictures" were treated by Hans W. Singer and William Strang. "The Bases of Design," by Walter Crane, contained 200 illustrations, and Waller J. Pearce was the author of an exhaustive treatise on "Painting and Decorating." "King René's Honeymoon Cabinet," by John P. Seddon, reproduced the designs of the pre-Raphaelite painters for the decoration of this cabinet which contained the architect's plans, and upon which a theory regarding the unity and fellowship of the several arts was worked out. "A History of the Society of Dilettanti," compiled by L. Cust, was beautifully illustrated; a history and description of "The Bayeux Tapestry" was written by Frank Rede Powke for the "Ex-Libris Series"; and "Windows: A Book about Stained and Painted Glass," by Lewis Forman Day, contained 50 full-page plates and more than 200 illustrations in the text, all of old examples. A series of "French Wood Carvings from the National Museums" were selected for illustration and accompanied with descriptive text by Eleanor Rowe, and "Old Furniture, English and Foreign," was drawn and described by Alfred Ernest Chancellor. "London Impressions" consisted of etchings and pictures in photogravure by William Hyde and essays by Alice Maynell, and "London Types," drawn by William Nicholson, were accompanied with quatorzains by W. E. Henley. "The Nature Poems of George Meredith" were collected into a beautiful volume and illustrated with 20 full-page pictures by William Hyde; and Aubrey Beardsley was represented by "Six Drawings Illustrating Theophile Gautier's romance 'Mademoiselle de Maupin,'" and by "A Second Book of Fifty Drawings." "Pictures of the Classic Greek Landscape and Architecture," by John Fulleylove, R. I., were accompanied with text by Henry W. Nevinson. John H. Huddilston wrote on "Greek Tragedy in the Light of Vase Paintings," and Dr. Murray on "Greek Bronzes." "Examples of Greek and Pompeian Decorative Work" were measured and drawn by James Cromar Watt. Sir Richard Temple gave us "A Bird's-Eye View of Picturesque India," beautifully illustrated. "Our English Min-

isters," described by Dean Farrar, Dean Purey-Cust, and others, filled two volumes, illustrated by Henry Railton and others; and "The Church Bells of Buckinghamshire, their Inscriptions, Founders, Uses, and Traditions," were described and illustrated in a large volume by A. H. Cocks. "The Arms of the Royal and Parliamentary Burghs of Scotland" we owe to John, Marquess of Bute, J. R. N. Macphail, and H. W. Lonsdale. "A Catalogue of Arabic Coins in the Khedival Library, Cairo," came from Stanley Lane-Poole, and "Terra-Cotta Sarcophagi, Greek and Etruscan, in the British Museum," by A. S. Murray, was published by order of the trustees of that institution. "Rex Regum," by Sir Wyke Bayliss, was a painter's study of the likenesses of Christ from the time of the Apostles to the present day, with 50 illustrations. "The Art Annual for 1898," being the Christmas number of the "Art Journal," consisted of the life and work of Lady Butler, by Wilfrid Meynell, with 3 full-page plates, and 60 other illustrations; Sir William Blake Richmond delivered a lecture to the students of the Royal Academy upon "Leighton, Millais, and William Morris"; M. H. Spielmann wrote on "Millais and His Work," and "J. F. Millet and Rustic Art" was the theme of Henry Naegely (Henry Gaelyn), the author of "The Mummer and Other Poems." In the "Portfolio Series" R. H. M. Stevenson gave his attention to "Rubens," "Chinese Porcelain," by W. G. Gulland, had notes by T. J. Larkin, and contained 485 illustrations, while "The Ceramics of Swansea and Nantgarw" contained a history of the factories by W. Turner, also illustrated. "The Fringe of an Art," by Vernon Blackburn, contained appreciation applied to music, and "Voice and Violin" was the title of sketches, anecdotes, and reminiscences, by Dr. T. L. Phipson, the author of "Famous Violinists and Fine Violins." H. Tupper considered "The Growth and Influence of Music in Relation to Civilization." Vol. II of "Modern Opera Houses and Theatres," by Edwin O. Sachs, proved no less interesting and instructive than the former volume. "The Theatrical World of 1897" was reviewed by William Archer, and John Hollingshead published "Gaiety Chronicles," "Amateur Clubs and Actors," by various authors, was edited by W. G. Elliot.

History.—"The Building of the British Empire," written by Alfred T. Story for the "Stories of the Nations Series," in two volumes, contained the story of England from Elizabeth to Victoria. "The Foundations of England," according to Sir J. H. Ramsay, were laid B. C. 55-A. D. 1154, and from the same author we had "Lancaster and York: A Century of English History," covering the period 1399-1485. Vol. IV of J. Hamilton Wylie's great work "The History of England under Henry the Fourth" was issued, covering 1411-1413; "England and the Hundred Years' War, 1327-1485," by C. W. C. Oman, was the concluding volume of the "Oxford Manuals of English History"; General the Hon. G. Wrottesley gave us "Crécy and Calais" from the public records, and from James Gairdner we had a review of "The Life and Reign of Richard the Third. The Early Days of the Nineteenth Century in England, 1800-1820," by William Connor Sydney, filled two volumes; from A. J. Evans and C. S. Fearenside we had "England under the Later Hanoverians, 1760-1837," and H. DeB. Gibbins gave a concise history of "The English People in the Nineteenth Century." "Cromwell's Scotch Campaigns, 1650-'51" appealed to students of military history. W. J. Hardy edited a second volume of "Domestic State Papers of the Reign of William and Mary." "The Battle of Sheriffmuir" was related from original sources, and "Historical Notes or Essays on the '15

and '45" came from D. Murray Rose. "Historical Papers relating to the Jacobite Period, 1699-1750," in two volumes, were edited by Col. James Allardyce, and from Andrew Lang we had "The Companions of Pickle," carrying on the narrative begun in "Pickle the Spy." Julian S. Corbett published a history of "Drake and the Tudor Navy" in two volumes, and also edited the story of two of Drake's campaigns under the title of "The Spanish War, 1585-1587," published by the Navy Records Society. Vol. II of "The Royal Navy," by William Laird Clowes, carried on that valuable work, and Part II of "Britain's Naval Power," a short history of the growth of the British navy, by Hamilton Williams, covered "From Trafalgar to the Present Times." "The British Merchant Service," by R. J. Cornewall-Jones, gave a history of the British mercantile marine from the earliest times to the present day, and from Gomer Williams we had a "History of the Liverpool Privateers and Letters of Marque," with an account of the Liverpool slave-trade. "The War in the Peninsula" was fought over again by Alexander Innes Shand; Major A. Griffiths wrote in an interesting manner of "Wellington and Waterloo," and William O'Connor Morris fought over again "The Great Campaigns of Nelson." The same author also wrote the history of "Ireland, 1798-1898" with striking impartiality, reviewing the miseries of a century, and contending firmly for a government of the unhappy country according to its own ideas. W. H. Fitchett (Vedette) followed his "Deeds that Won the Empire" with "Fights for the Flag"; Lieut. Col. Ross-of-Bladensburg condensed from his regimental "History of the Coldstream Guards" the story of "The Coldstream Guards in the Crimea," and Col. Edward Vibart wrote "The Sepoy Mutiny as seen by a Subaltern from Delhi to Lucknow." "Two Native Narratives of the Mutiny in Delhi" were translated from the originals by the late C. T. Metcalfe, and "Daily Life during the Mutiny" was described by J. W. Sherer. Modern history received numerous additions. The best selling book published in England during the year was "With Kitchener to Khartoum," by G. W. Stevens, the author of "With the Conquering Turk," who went himself through the campaign which he chronicled so vividly, participating in the battles of the Atbara and Omdurman, and entering with the army the city where Gordon fell. "Sirdar and Khalifa; or, The Reconquest of the Soudan, 1896," by Bennet Burleigh, went over the same ground, and was accompanied with portraits, illustrations, maps, and a plan of battle. E. N. Burleigh in "The Downfall of the Dervishes" also gave a sketch of the campaign, and "The Egyptian Soudan, Its Loss and Recovery," came from Henry S. L. Alford and William Dennistoun Sword. "The Campaign in Tirah, 1897-98," as outlined by Col. H. D. Hutchinson, was supplemented by "Lockhart's advance through Tirah," by Capt. L. J. Shadwell; "Sketches on Service During the Indian Frontier Campaigns of 1897," were published by Major E. A. P. Hobday; Lionel James in "The Indian Frontier War" gave an account of the Mohmund and Tirah expeditions of 1897, and "The Story of the Malakand Field Force," by Lieut. Winston L. Spencer Churchill, was an episode of frontier war. Capt. G. J. Younghusband also gave us "Indian Frontier Warfare." Sir George S. Robertson told admirably "Chitral: The Story of a Minor Siege." "Egypt in the Nineteenth Century; or, Mehemet Ali and His Successors, until the British Occupation in 1882," by D. A. Cameron, was authoritative, the author having enjoyed peculiar advantages for the task he undertook, and Seymour Vandeleur was heard from on "Campaigning on

the Upper Nile and Niger." "Africa in the Nineteenth Century" was an excellent summary of events in the Dark Continent, by Edgar Sanderson, and "Rhodesia and its Government" came from H. C. Thomson, the author of "The Chitral Campaign" and "The Outgoing Turk." Rev. Colin Rae published "Malaboch; or, Notes from My Diary on the Boer Campaigns of 1894 against the Chief Malaboch of Blaauwberg, District Zoutpansburg, S. A. R.," with a synopsis of the Johannesburg crisis of 1896, having been chaplain at the time to the Malaboch forces; Brevet Lieut.-Col. E. A. H. Alderson went "With the Mounted Infantry and the Mashonaland Field Force, 1896," and J. Chalmers described "Fighting the Matabele." Vol. I of "Imperial Africa," by Major A. F. Mockler-Ferryman, was given to "British West Africa," and Demetrius C. Boulger told the story of "The Congo State." "British Rule and Modern Politics," an historical study by Hon. A. S. G. Canning, the author of "The Divided Irish" and "History in Fact and Fiction," may as well be mentioned here as anywhere. From H. E. Egerton we had "A History of British Colonial Policy," and Rev. W. P. Greswell traced the "Growth and Administration of the British Colonies, 1837-1897." An "Essay on Western Civilization in its Economic Aspects (Ancient Times)," by William Cunningham, D. D., appeared in the "Cambridge Historical Series," and was an able and interesting attempt to throw light on the most obscure side of ancient history; Prof. Samuel Dill wrote on "Roman Society in the Last Century of the Western Empire," and W. H. Bullock Hall found traces of "The Romans on the Riviera and the Rhone." "The Invasion of Egypt in A. D. 1249 by Louis IX of France," and "A History of the Contemporary Sultans of Egypt" came from Rev. E. J. Davis; "The Franks from Their Origin as a Confederacy to the Establishment of the Kingdom of France and the German Empire" was contributed by Lewis Sergeant to the "Story of the Nations Series," in which it was followed by "Modern France, 1789-1895," by André Lebon. The two volumes devoted to J. E. C. Bodley to "France," in reality a work of political philosophy, covered respectively "The Revolution and Modern France" and "The Parliamentary System." "The Union of Italy, 1815-1895," by W. J. Stillman (Concordia), the author of "The Cretan Insurrection of 1866" and "Herzegovina and the Late Uprising," belonged to the "Cambridge Historical Series," edited generally by Prof. G. W. Prothero, another issue of which was "Spain, Its Greatness and Decay, 1479-1788," by Major M. Hume, which had an introduction by E. Armstrong. "Russia's Sea Power, Past and Present; or, The Rise of the Russian Navy," was by Col. Sir George Sydenham Clarke, the author of "Fortifications," and "All the World's Fighting Ships" were passed in review by Frederick T. Jane. "The Romance of the House of Savoy" was related by Alethea Wiel in two charming volumes, and "Scenes in the Thirty Days' War between Greece and Turkey," described by Henry W. Nevinson, were illustrated with photographs. "The Romance of Regiment," by J. R. Hutchinson, told the story of the giant grenadiers of Potsdam, 1713-1740. "Monumental Remains of the Dutch East India Company in the Presidency of Madras" were described in a volume of "Reports of the Archaeological Survey of India," by Alexander Rea, superintendent of the survey. From Justin Huntly McCarthy came "A Short History of the United States." "French and English," by Evelyn Everett Green, was a story of the struggle in America, and a "History of the Dominion of Canada," by W. Parr Greswell, was published under the

auspices of the Royal Colonial Institution. Mrs. Frederick Boas was the author of an "English History for Children." "Life in an Old English Town: A History of Coventry," by M. Dormer Harris, belonged to the "Social England Series," edited by Kenelm D. Cotes; "Brentford; Literary and Historical Sketches," came from Frederick Turner, and "Chronicles and Stories of old Bingley" from Harry Speight. "The Beginnings of English Christianity" were traced by Prof. W. E. Collins for the "Churchman's Library"; "The Decian Persecution" was the theme of the "Hulsean Prize Essay" for 1896, by John A. F. Gregg; "England and the Reformation, A. D. 1485-1603," by G. W. Powers, belonged to the "Oxford Manuals of English History"; Henry Gee wrote on "The Elizabethan Clergy and the Settlement of Religion, 1558-1564." Canon Overton contributed "The Church in England" to the "National Churches Series," and "The Anglican Revival" to the "Victorian Era Series"; "The History of the Walloon and Huguenot Church at Canterbury" was written by Francis W. Cross, and "The Celtic Church in Ireland" came from Dr. Heron of Belfast. "The Empire and the Papacy, 918-1273," was from the pen of Prof. Lout. "The Bishop of Lindisfarne, Hexham, Chesterle Street, and Durham, A. D. 635-1020," was an introduction to the ecclesiastical history of Northumbria, by Rev. George Miles, and "The English Black Monks of St. Benedict," by Rev. Ethelred L. Taunton, gave a sketch of their history from the coming of St. Augustine to the present day, in two volumes. "A History of Rugby School" was written for the series of "English Public Schools," by W. H. D. Rouse; "Annals of Eton College" came from Wasey Sterry, and "Harrow School," edited by Edmund W. Howson and George Townsend Warner, had an introduction by Earl Spencer. "Cambridge and Its Colleges," by A. H. Thompson, was a companion volume to "Oxford and Its Colleges," by J. Wells, and was illustrated, like that volume, by Edmund H. New.

Poetry.—Of the 290 new books of poetry published in 1898 it is impossible to say much. Vol. I of "The Poetical Works of Robert Bridges" really introduced that poet of the few to the English public, containing as it did many poems never before publicly printed. The quality of his verse, however, showed him more likely to gain and retain the affection of the minority than the applause of the multitude. "Poems" of Stephen Phillips contained his "Christ in Hades," "Marpessa," and several new poems which have never been previously printed: from John Davidson came "The Last Ballad, and Other Poems," as well as a play in four acts entitled "Godfrida," while Maurice Hewlett, who last year sent forth "Songs and Meditations," was represented by "Pan and the Young Shepherd," a pastoral in two acts, which received the highest praise for "creative power, the vital principle, clean sight, and an imagination both gay and robust." The poet-laureate published but one volume, "Lamia's Winter Quarters," not all of which is poetry even in form, the verse being scattered incidentally amid the record of a family party's sojourn in a Tuscan villa. "The Collected Poems of William Watson" was the misleading title of a selection made by the poet from his printed work in verse. "Odes in Contribution to the Song of French History," by George Meredith, while "possessing splendid beauty in the intervals of lucidity," was about as exasperatingly intricate as that author has ever contrived to render his productions in prose or poetry. Ernest Rhys gave us "Welsh Ballads, and Other Poems," full of Welsh scholarship. "Minuscule" was the title of lyrics of nature, art, and love, by F. W. Bourdillon, and "The Wind in the Trees" was a

book of country verse by Katharine Tynan. "Rampoli: Growth from a Long-planted Root," consisted of translations (mainly in verse), new and old, chiefly from the German, along with an original poem, "A Year's Diary of an Old Soul," one of the finest pieces of spiritual writing from the author's pen. Laurence Housman published "Spikenard: A Book of Devotional Love Poems," Laurence Binyon, "Porphyry, and Other Poems," Charles Camp Tarelli, "Persephone, and Other Poems," and William Norman Guthrie "A Booklet of Verse." Miss E. Nesbit sent out "Songs of Love and Empire," M. C. Tyn-dall, "Lays and Legends of England," A. Conan Doyle was heard from in "Songs of Action," and Rennell Rodd in "Ballads of the Fleet," while G. Stewart Bowles was responsible for "A Gun-Room Ditty Box," "London Voluntaries" and other poems of W. E. Henley were collected under the title of "A Book of Verses"; "Yggdrassil, and Other Poems" came from John Campbell; "Shadows and Fireflies" from Louis Barsac; "Imaginations in Verse" from G. T. Bridges; "Pictures of Travel, and Other Poems" from Mackenzie Bell; "A Little English Portfolio" from Ada Iddings-gate; "Mallow and Asphodel" from R. C. Trevelyan; "Nightshade and Poppies" from Dugald Moore; "Willow-Vale, and Other Poems" from Henry Rose, and "Poems" from Ernest Hartley Coleridge. "The Shadow of Love" passed over Margaret Armour; Newman Howard followed "Footsteps of Prosperpine"; Alfred Gurney dreamt of "Love's Fruition," and Richard Yate Sturges gave us "Song and Thought," the proportion of the latter, however, being very small. "Pan" was the title of a collection of lyrical poems by Rose Haig Thomas; "The Starless Crown, and Other Poems" had only the initials J. L. H. on its title-page; Temple Newell chronicled "Episodes of Joy"; John Rickards Mozley saw "A Vision of England," which he published with other poems; H. M. Burnside entitled his effusions "Driftwood"; F. B. Money Coult chronicled "The Revelation of St. Love the Divine," "Nocturnes" were composed by Rev. W. Moore; B. J. M. Donne put "Colloquy and Song" into print; Russell Veitch discoursed of "Willow Leaves"; Addison M'Leod found poetry in "A Window in Lincoln's Inn"; "Terra Tenebrarum, Love's Jest-Book and Other Verses," of William Knox Johnson saw the light, as did "The Child of the Bond-woman, and Other Verses," of Jean Carlyle Graham; "Ian and Edrie" was a poem of our own day, by Don Antonio Mirandola; William Akerman gave a dramatic version of the old legend of "Rip Van Winkle," and Thomas Fergusson contributed "Walter Graeme, and Other Poems." "Cameos, and Other Poems" were by Florence G. Attenborough (Chrystabel), and "Lays of Iona," by S. J. Stone, while "Life of Life" was by Arthur L. Salmon. A new edition of W. S. Gilbert's "Bab Ballads" was sent out; "Selected Poems from the Works of the Hon. Roden Noel" were accompanied with a biographical and critical essay by Percy Addleshaw; "Poems," by Innes Randolph, were compiled by his son, Harold Randolph, from the original manuscript; and "The Poetry of Wilfrid Blunt" was selected and arranged by W. E. Henley and George Wyndham. A new, revised, and enlarged edition of "The Works of Lord Byron," with illustrations, was opened with his "Poetry," edited by Ernest Hartley Coleridge; Thomas Hutchinson edited "Lyrical Ballads by William Wordsworth and Samuel Taylor Coleridge, 1798," with certain poems of the same year, adding an introduction and notes; and Richard Garnett edited "Original Poetry by Victor and Cazire" (Percy Bysshe Shelley and Elizabeth Shelley). Wilfred Whitten compiled "London in Song," and "Lyra Nicotiana" were edited by W. G. Hutchinson

in the "Canterbury Poets Series." Canon Ainger edited the "Poems of Thomas Hood" in two volumes. "Versions From Hafiz" was an essay in Persian metre by Walter Leaf, and translations of the "Rubaiyat of Omar Khayyam" were made by E. Heron-Allen and John Payne, respectively. William M. Rossetti wrote an introduction to an edition of "The Blessed Damozel," by Dante Gabriel Rossetti. Two volumes contained the "Plays, Pleasant and Unpleasant," by George Bernard Shaw, and "The Ambassador" was the title of a comedy in four acts by Mrs. Mary Craigie (John Oliver Hobbes). "The World at Auction" was anything but a creditable production by Michael Field, and "Godefroi and Yolande" was the title of a mediæval drama in one act, by Lawrence Irving.

Physical, Moral, and Intellectual Science.—"The Wonderful Century" which is nearing its close had its successes and failures reviewed by Alfred Russel Wallace. "The Scientific Memoirs of Thomas Huxley" were edited by Professors Michael Foster and E. Ray Lankester; "Recent Advances in Astronomy" were reviewed by A. H. Fison in the "Victorian Era Series," and "The Tides and Kindred Phenomena in the Solar System" were the subject of lectures delivered in 1897 at the Lowell Institute, Boston, Mass., U. S. A., by George Howard Darwin, the son of Charles Darwin. A volume on "Seismology" came from Prof. John Milne, in the "International Science Series." A new "Science Series," edited by F. McKeen Cattell and F. E. Beddard, was opened with "The Study of Man," by Dr. Alfred Cort Haddon, which was followed by "The Groundwork of Science: A Study of Epistemology," by St. George Mivart. Grant Allen turned "Flashlights on Nature." "Organic Evolution Cross-examined; or, Some Suggestions on the Great Secret of Biology," by the Duke of Argyll, was accompanied with illustrations. "A Sketch of the Natural History (Vertebrates) of the British Islands," by F. G. Afalo, the author of "A Sketch of the Natural History of Australia," contained numerous illustrations, and A. S. Woodward prepared "Outlines of Vertebrate Palæontology for Students of Zoölogy." Vol. I of the "Student's Text-Book of Zoölogy," by Adam Sedgwick, covered "Protozoa to Chætogonatha"; "Wild Traits in Tame Animals," by Louis Robinson, consisted of familiar studies in evolution, and from Sir William H. Flower we had "Essays on Museums and Other Subjects Connected with Natural History." "Deer of All Lands" were exhaustively treated by Richard Lydekker in a handsomely illustrated volume. A "Monograph of the Turdidæ, or Family of Thrushes," by the late Henry Seebohm, the author of "Siberia in Europe," "A History of British Birds," etc., was completed after the author's death and edited by Dr. E. Bowdler Sharpe, who published himself Parts I, II, and III of "Teracolus: A Monograph of the Genus." Charles Dixon in "Lost and Vanishing Birds" gave a record of some remarkable species and made a plea for some threatened forms, which contained ten plates by C. Whymper, and "Birds in London" were the theme of W. H. Hudson. "The Flora of British India," by Sir J. D. Hooker, was completed by the issue of Vol. VII, and Part III of Vol. VII of "The Flora of Tropical Africa" was issued, the work begun by D. Oliver being continued by various botanists, edited by W. T. Thiselton Dyer. The "Flora Capensis," begun by W. H. Harvey and O. W. Sonder, and also continued by various botanists, edited by Mr. Dyer, reached Part I of Vol. VII, and Alfred Fryer published Parts I-III of "The Potamogetons (Pond Weeds) of the British Isles." Vol. III also appeared of "An Illustrated Flora of the Northern United States, Canada, and the Brit-

ish Possessions." S. A. Moor edited "Practical Plant Physiology," by Prof. W. Detmer, and from W. Robinson we had "The Wild Garden; or, The Naturalization and Natural Grouping of Hardy Exotic Plants," with a chapter on the garden of British wild flowers, illustrated by Alfred Parsons. Part LI was issued of "The Lepidoptera of the British Islands," by Charles G. Barrett, and Part XXXI of "Lepidoptera Indica," by F. Moore. "Ethnological Studies Among the North-West-Central Queensland Aborigines" were pursued by Walter E. Roth. "The Five Windows of the Soul," by Edward Hamilton Aitken, gave a popular account of the human senses; Alfred F. Schofield, M. D., discoursed of "The Unconscious Mind"; Henry Rutgers Marshall contributed an essay on "Instinct and Reason," and "Psychology for Teachers," by C. Lloyd Morgan, had an introduction by Henry W. Jameson. "The Metaphysics of Experience" were explored by Shadworth Hodgson, and Prof. Carveth Read supplied "Logic Deductive and Inductive." "The Number Concept" had its origin and development examined by Levi Leonard Conant. The first volume of "A Treatise on Universal Algebra," with applications, by Alfred North Whitehead, was sent out. Henry E. Roscoe and Arthur Harden published "A New View of the Origin of Dalton's Atomic Theory," a contribution to chemical history, which contained also letters and documents concerning the life and labors of John Dalton; "Three Lectures on the Anatomy of Movement," delivered at the Royal College of Surgeons of England, by Francis Warner, M. D., constituted a treatise on the action of nerve centres and modes of growth, and from L. Forbes Winslow, M. D., the celebrated specialist in lunacy cases, we had an exhaustive work upon "Mad Humanity." Book III of the second volume of "Principles of Political Economy," by Joseph Shield Nicholson, carried on that valuable work, and from William Hurrell Mallock came "Aristocracy and Evolution," a study of the rights, the origin, and the social functions of the wealthier classes. "What is Socialism?" was asked by Scotsburn; "Industrial Democracy," by Sidney and Beatrice Webb, was in reality a cyclopædia of trades-union information, and from the same authors we had "Problems of Modern Industry." "The Rise of Democracy" was contributed by J. Holland Rose to the "Victorian Era Series"; "Australian Democracy" was the theme of Henry de R. Walker, and "A History of English Democratic Ideas in the Seventeenth Century," by G. P. Gooch, appeared in the series of "Cambridge Historical Essays," as did "Outlines of English Industrial History," by W. Cunningham and E. A. McArthur. "Workhouses and Pauperism," by Louisa Twining, and "University and Social Settlements," by W. Reason, appeared in the "Social Questions Series"; and "Provident Societies and Industrial Welfare" was added by E. W. Brabrook to the "Victorian Era Series." "The Cry of the Children" was an exposure made by Frank Iird of certain British industries in which children are iniquitously employed. In the "Criminology Series" "Political Crime," by Louis Proal, had an introduction by Franklin H. Giddings. "Mysteries of Police and Crime" came from no less an authority than Major Arthur Griffiths, one of Her Majesty's Inspectors of Prisons, and Rev. J. W. Horsley, the author of "Jottings from Jail," was again heard from on "Prisons and Prisoners." "English National Education" engaged the attention of H. Holman; "The Educational Systems of Great Britain and Ireland" were discussed by Graham Balfour; J. C. Tarver published essays on secondary education entitled "Debatable Claims," D'Arcy W. Thompson in "Day Dreams of a School-

master" propounded educational theories, and Francis Warner, M. D., wrote on "The Study of Children and their School Training." "University Addresses" of Principal John Caird were edited by his brother, the present Master of Balliol. "Progress in Woman's Education" was edited by the Countess of Warwick. "The Principles of Landed Estate Management" were laid down by H. Herbert Smith, the agent of Lord Lansdowne, and accompanied with plans and illustrations.

Political books and pamphlets were numerous. From Sir Charles W. Dilke came a volume on "The British Empire," a reprint of articles contributed to various newspapers in 1898, and he also made suggestions on "Army Reform." "The Free-Trade Movement and Its Results" was one of the issues of the "Victorian Era Series," by G. Armitage-Smith, and "The House of Lords Question" was edited by Andrew Reid; "The Saving of Ireland," by Sir George Baden-Powell, presented the conditions and remedies, industrial, financial, and political, of that miserable land. "The Gladstone Colony," by James Francis Hogan, contained an unwritten chapter of Australian history. Prof. W. Cunningham wrote on "Alien Immigrants to England and their Influence on Social Life." W. F. Reddaway was heard from on "The Monroe Doctrine" and Benjamin Kidd on "The Control of the Tropics." "Bimetallism" was a summary and examination of the arguments for and against a bi-metallic system of currency, by Major Leonard Darwin; "Studies in Currency, 1898," were published by Lord Farrer, and L. C. Probyn discussed "Indian Coinage and Currency." "The Statesman's Yearbook for 1898" was issued, as usual, by J. Scott Keltie.

Religious books of the year included "The Incarnate Saviour," a life of Jesus Christ by Rev. William Robertson Nicoll; "The Christ of History and Experience," the theme of the Kerr Lectures delivered at Edinburgh by Rev. D. W. Forrest; "Divine Immanence in Nature," by Rev. J. R. Illingworth; "Spiritual Apprehension," by Rev. J. Llewellyn Davies; "What the Bible Teaches," by Rev. Reuben A. Torrey; "Lessons from the Cross," a series of sermons delivered by the Bishop of London during Holy Week; and "The Gospel of Joy," another collection of sermons, by Rev. A. Stopford Brooke. Vol. II. of "The Book of the Twelve Prophets commonly Called the Minor," by Dr. George Adam Smith, completed the "Expositor's Bible." "Colossian Studies," by Dr. Handley Carr Glyn Moule, followed his "Philippian Studies" of last year, and from Canon Gore we had a practical exposition of "St. Paul's Epistle to the Ephesians." He also edited "Essays in Aid of the Reform of the Church." "The People and the Priest," by Rev. R. E. Welsh, protested strongly against the Romanizing movement in the Church of England, while the High Church view was presented in "Ministerial Priesthood," by Canon R. C. Moberly. "The Ritschlian Theology and the Evangelical Faith" came from James Orr, D. D. Rev. Leighton Pullan wrote "The History of Early Christianity" for the "Popular Biblical Library," another issue of which was "The Women of the Old Testament," by Dr. Robert Forman Horton. "The Early History of the Hebrews" was considered by Prof. Archibald H. Sayce; "The Poetry and Religion of the Psalms" were the theme of the Croall Lectures for 1898-'94, by Dr. James Robertson; "Lectures and Essays on Natural Theology and Ethics," by William Wallace, were edited with a biographical introduction by Edward Caird; "University Sermons," preached before the University of Glasgow, 1873-1898, by the late Principal John Caird, were collected into a volume; "Light and Leaven" was the

title of historical and social sermons, by Hensley Henson, who also delivered some Lenten addresses upon "Discipline and Law"; Dr. Joseph Parker published "Christian Profiles in a Pagan Mirror," and L. B. Hartman, D. D., treated of "Divine Penology." "The Clerical Life" was a series of letters to ministers, written by Dr. J. M. Watson (Ian MacLaren), Dr. Marcus Dods, and others; and from Dr. Watson alone we had "Companions of the Sorrowful Way," nine chapters of reflection upon the last days of Jesus Christ on earth. He also contributed an introduction to four volumes of "Sermons" of Rev. Frederick W. Robertson, which had a preface by C. B. Robertson. "The Lord's Prayer," by the late Edward Meyrick Goulburn, was given to the public; Dr. Orello Cone wrote on "Paul the Man, the Missionary, and the Teacher"; Dr. George Holley Gilbert prepared "The Student's Life of Jesus," and Rev. J. Brough dwelt upon "The Early Life of Our Lord." "The Spring of the Day," by Dr. Hugh Macmillan, was a companion volume to his "Clock of Nature," published in 1897, and from Dean Frederic W. Farrar we had a volume of "Allegories" and a history of "The Herods." The Lord Bishop of Winchester contributed a preface to "Selections from the Works of Bishop Thorold." "Footsteps in Human Progress, Secular and Religious," were followed by James Samuelson, and "What is Life?" was asked by Frederick Hovenden. Andrew Lang discussed "The Making of Religion," combating vigorously the animistic theories of Herbert Spencer and Prof. Tylor; Col. R. Elias wrote briefly on "The Tendency of Religion," and Mrs. Humphry Ward delivered an address upon her idea of "New Forms of Christian Education." W. M. Flinders Petrie treated of "Religion and Conscience in Ancient Egypt," and the story of missionary work in modern India was told by Irene H. Barnes in "Behind the Pardah." A "History of the Society for Promoting Christian Knowledge, 1698-1898," was written by W. O. B. Allen and Edmund McClure, and Rev. Duncan Campbell devoted a volume to "Hymns and Hymn-making." "Hymns That Have Helped Me" contained a collection of nearly two hundred made by W. T. Stead from the judgment of a number of distinguished persons in all walks of life, and accompanied with prefaces, appendices, and notes. "Satan's Invisible World Displayed," by Mr. Stead, was a sensational picture of the corrupt condition of municipal affairs in New York city, as disclosed by the investigations of the past few years, and formed a companion volume to his study of Chicago. "Ancient English Holy Week Ceremonial" was revived in an interesting volume by Henry John Feasey, and "The Mysteries, Pagan and Christian," were considered by Archdeacon Cheetham. "A Vindication of the Bull 'Apostolica Curæ'" was made by the Cardinal, Archbishop, and Bishops of the Province of Westminster, which was replied to by the Archbishops of Canterbury and York.

Books of a miscellaneous character, which may as well be included here as anywhere, were: "Wireless Telegraphy," by Richard Kerr, and from Charles Bright came "Submarine Telegraphs," giving their history, construction, and working. "A History of the Great Northern Railway, 1845-1895," was written by C. H. Grinling; a fifth edition of "Ironclads in Action," by H. W. Wilson, had a new chapter on the American Navy; questions and answers in "The Theory and Practice of Military Topography" were set down by Major J. H. Bowhill, and "Early Fortifications in Scotland" were the theme of the Rhind Lectures on Archaeology, by David Christison, M. D. They were held to comprise moats, camps, and forts, and were illustrated and

accompanied with maps. A "History of London Street Improvements, 1855-1897," was written by Percy J. Edwards, and in the "Victorian Era Series" appeared "London in the Reign of Queen Victoria, 1837-1897." "The Evolution of the English House," as traced by S. O. Addy in the "Social England Series," contained 42 illustrations. Prof. F. W. Maitland contributed a volume on "Canon Law in England" and also delivered the second course of the Ford Lectures at Oxford upon "Township and Borough." "With Nature and Camera," by Richard Kerton, contained the adventures and observations of a field naturalist and an animal photographer; "Wild Animals in Captivity," by A. D. Bartlett, late superintendent of the Zoological Gardens in Regent Park, contained an account of the habits, food, management, and treatment of the animals, with reminiscences and anecdotes, put together and edited by his son, Edward Bartlett, and from Mrs. Dew Smith, the author of "Confidences of an Amateur Gardener," came a delightful book on domestic animals entitled "Tom Tug and Others." Two volumes contained "The Encyclopædia of Sport," edited by the Earl of Suffolk and Berkshire, Hedley Peek, and F. G. Afalo, and "An Almanac of Twelve Sports for 1899," by William Nicholson, contained accompanying rhymes by Rudyard Kipling. "Salmon and Sea Trout," by the Right Hon. Sir Herbert Maxwell, M. P., in the "Angler's Library," told how to propagate, preserve, and catch them in British waters, and was illustrated by Mrs. Graham-Moir, E. T. Bennett, the author, and others; "The Trout" was added to the "Fur, Feather, and Fin Series," by the Marquess of Granby. "Punting," by P. W. Squire, belonged to the Badmington Library; Horace G. Hutchinson proclaimed himself "The Golfing Pilgrim"; "Willow and Leather," by E. V. Lucas, celebrated the praises of cricket, in prose and poetry; and "With Bat and Ball" was another contribution to the literature of the noble game, by George Giffen. A history of "Gambling in England," by John Ashton, was supplemented by "The Gambling World," a collection of anecdotic memories and stories of personal experience in the temples of hazard and speculation, by Rouge et Noir. In conclusion we have "The Encyclopædia of Practical Cookery," in two volumes, edited by T. F. Garrett, and illustrated with colored plates and engravings.

Voyages and Travels.—The decrease in the quantity of books of travel written during the year was more than compensated by the quality of those sent out, which was pronounced remarkable by competent critics. Arthur H. Neumann described "Elephant Hunting in East Equatorial Africa"; Lionel Declespent "Three Years in Savage Africa," which he described in a volume to which Henry M. Stanley contributed an introduction; "Rambles in Lion Land" came from the pen of Capt. Francis B. Pearce, and Rev. Dennis Kemp recorded the experiences of "Nine Years at the Gold Coast." "Travels in the Coast Lands of British East Africa and the Islands of Zanzibar and Pemba," by W. W. A. Fitzgerald, were accompanied with maps and illustrations, and R. Austin Freeman described "Travels and Life in Ashanti and Jaman." Lieut.-Col. J. R. Trotter explored "The Niger Sources and the Borders of the New Sierra Leone Protectorate"; "Exploration and Hunting in Central Africa" were combined by Capt. A. St. H. Gibbons, and Capt. Guy Burrows wrote from experience of "The Land of the Pigmies." Count Gleichen went "With the British Mission to Menelik, 1897," giving a picturesque account of Abyssinia. "The Soul of a People," by H. Fielding, was an account of the life and belief of the Burmese, while two volumes were devoted by H. Warrington Smyth to "Five Years in

Siam," spent by him as Director of Mines in that country. "Sunny Memories of an Indian Winter," by Mrs. Sara H. Dunn, contrasted strongly with "A Tour Through the Famine Districts of India," made by F. H. S. Merewether. "Sport in the Highlands of Kashmir" was described by Henry Zouch Darrah with much effectiveness; "Camping and Tramping in Malaya" came from Ambrose B. Rathborne, and "Pioneering in Formosa" from W. A. Pickering. "China in Transformation," according to Archibald Ross Colquhoun, was pronounced "China in Decay" by Alexis Krausse; John Thomson went "Through China with a Camera," and Arthur May Knapp gave two volumes to "Feudal and Modern Japan." "Goldfields and Chrysanthemums," by Catherine Bond, was a record of travel in Australia and Japan; Albert T. Calvert wrote "My Fourth Tour in Western Australia," and Michael Davitt, M. P., described "Life and Progress in Australasia." "Islands of the Southern Seas," by Michael Myers Shoemaker, and "Brown Men and Women: The South Sea Islands in 1895 and 1896," by Edward Reeves, were both illustrated, while from Hugh Clifford, the author of "In Court and Kampong," we had "Studies in Brown Humanity," in Malay, otherwise described as scrawls and smudges in sepia, white, and yellow. "The Indiscretions of Lady Asenath," by Basil Thomson, was in reality an exposition of native life in the South Sea islands, declared the most satisfying and the most suggestive book yet done on the Melanesians. "Tropics and Snows," by Capt. R. G. Burton, gave a record of sport and travel in various lands, and Mrs. Rowan was "A Flower Hunter in Queensland." G. W. Steevens wrote ably of "Egypt in 1898"; "The City of the Caliphs," by Eustace A. Reynolds-Ball, was a popular study of Cairo and its environments, and the Nile and its antiquities; and "From Sphinx to Oracle, Through the Libyan Desert to the Oasis of Jupiter Ammon," came from Arthur Silva White. "Twenty Years in the Near East," by A. H. Beaman, was a valuable contribution to students of the Eastern question; "Notes from a Diary in Asiatic Turkey," by Lord Warkworth, M. P., contained 21 full-page photogravures and other illustrations from photographs by the author; "The Hill of the Graces," visited by H. S. Cowper, was situated in central Tripoli, and contained the megalithic ruins known as "senams"; Ella C. Sykes rode "Through Persia on a Side Saddle," while, "In the Forbidden Land," in two volumes, contained the account of A. H. Savage Landor's journey into Tibet, his capture by the Tibetan lamas and soldiers, his imprisonment, torture, and ultimate release. M. S. Wellby also went "Through Unknown Tibet" with less disastrous adventures. "Through Asia," by Sven Hedin, in two volumes, with maps, 2 plates printed in color, and about 280 illustrations by the author, taken from photographs, was one of the most important books of travel of the year. "Excavations at Jerusalem, 1894-'97," by F. J. Bliss, Ph.D., was published under the auspices of the Palestine Exploration Fund, and from W. M. Flinders Petrie came "Syria and Egypt, from the Tell-el-Amarna Letters." In this connection may be mentioned also "The Ramesseum and the Tomb of Ptah-hetep," by J. E. Quibell and Messrs. Paget and Pirie, published under the auspices of the Egyptian Research Account. "Old Tracks and New Landmarks" was the title of wayside sketches in Crete, Macedonia, Mitylene, etc., by Mrs. Mary A. Walker; H. Spender and H. L. Smith crossed "The High Pyrenees": sporting adventures in Austria were described in "On Plain and Peak," by Randolph L. Hodgson; Elizabeth Robins Pennell went "Over the Alps on a Bicycle," the journey being illustrated by Joseph Pennell, and William

Scott accompanied his work upon "Rock Villages in the Riviera," with 60 illustrations from drawings of his own. Rev. Alexander Robertson, D. D., author of "Through the Dolomites," gave his attention to "The Bible of St. Mark: The Altar and Throne of Venice," writing not only a history of St. Mark's Church in that city, but a description and interpretation of its biblical sculptures and mosaics. "The Land of Contrasts" was a Briton's view of his American kin, vouchsafed by James Fullerton Muirhead, and from Richard Davey came a sketch of "Cuba, Past and Present." Frances Macnab, the author of "On Veldt and Farm," wrote on "British Columbia for Settlers," describing its mines, trade, and agriculture; E. Jerome Dyer wrote on "The Routes and Mineral Resources of Northwestern Canada," and Harry De Windt went "Through the Gold Fields of Alaska to Behring Straits." J. H. E. Secretan also took a journey down the Yukon from its source to its mouth, the incidents of which are detailed in "To Klondyke and Back." C. J. Cutcliffe Hyne passed "Through Arctic Lapland"; "With Ski and Sledge over Arctic Glaciers," by Sir W. Martin Conway, an appendix to "The First Crossing of Spitzbergen," which he published last year, was illustrated from photographs; "A Northern Highway of the Tear" was traveled by Aubyn Trevor Batty, and "Side Lights on Siberia," by James Young Simpson, gave some account of the great Siberian railroad and of the prisons and exile system. "The Cruise of the 'Cachalot' Round the World after Sperm Whales," by Frank T. Bullen, contained much unusual information. "South American Sketches" came from Robert Cranford; "Twenty-five Years in British Guiana," by Henry Kirke, was supplemented by "British Guiana," from the pen of Rev. L. Crookall, and "Spark's Guide Book and History" of the same colony; while, returning to the mother country, we have to record "Highways and Byways in North Wales," by A. G. Bradley, illustrated by Joseph Pennell and Hugh Thompson, and Sir Walter Besant's "South London," a companion volume to his "London" and "Westminster," which contained etchings by F. S. Walker and 118 illustrations.

The following are the figures of book production in England during the year, as compared with those of 1897, from the columns of the London Publishers' Circular:

DIVISIONS.	1897.		1898.	
	New books.	New editions.	New books.	New editions.
Theology, sermons, biblical, etc.	594	109	535	153
Educational, classical, and philological	698	236	728	189
Novels, tales, and juvenile works	1,900	717	1,758	644
Law, jurisprudence, etc.	98	47	117	46
Political and social economy, trade, etc.	531	110	487	97
Arts, sciences, and illustrated works	288	30	263	32
Voyages, travels, geographical research	173	48	133	39
History, biography, etc.	604	141	618	125
Poetry and the drama	296	129	290	81
Yearbooks and serials in vols.	423	...	347	...
Medicine, surgery, etc.	152	59	160	36
Belles-lettres, essays, monographs, etc.	227	48	182	36
Miscellaneous, including pamphlets, not sermons	210	8	436	30
Totals	6,344	1,642 6,344	6,008	1,506 6,008
		7,986		7,516

Three books of the year were "crowned" by the Academy with a gift of 50 guineas each. They

were, "The Forest Lovers," by Maurice Hewlett, "The Life of Shakespeare," by Sidney Lee, and "Tales of Unrest," by Joseph Conrad.

LITERATURE, CONTINENTAL, IN 1898.

The following annotated lists include, as always, works of momentary as well as permanent interest, the aim being to make the literary record broad in purpose though limited in space.

Belgium.—Interesting contributions to national history are "Étude sur la Propriété foncière dans les Villes du Moyen Age en Flandre," by Guillaume des Marex; "Les Tributaires ou Serfs d'Église en Belgique au Moyen Age," by L. Vanderkindere; dissertations by H. van Houtte and V. Desprez on the history of Flanders in the Middle Ages; a collection of "Bans de Police de la Ville de Mons" in the fourteenth and fifteenth centuries, by L. Devillers; Dom Ursmer Berlière's "Mélanges d'Histoire Benedictine"; a book by Aug. Thys on the persecution of the Belgian clergy by the Directory; F. van Caenegem's "La Guerre des Paysans (1798-9)"; a work on the population of the large Belgian towns in the nineteenth century by Maurice Heins; revelations concerning André Vésale and his family by the late A. Wauters; and E. Goe-sart's curious studies on Charles V. Pierre Van-der Beke's "Carte de Flandre de 1588" (extant in one copy) has been republished, with notes, by F. van Ortry. "Le Voyage de François Vinchant en France et en Italie (1609-10)," by Félix Hachez, makes accessible the notes of an early traveler. Le Comte Goblet d'Alviella has a learned and important treatise on "Ce que l'Inde doit à la Grèce," while Léon Leclère offers a good "Histoire contemporaine" (1789-1897). The section "Travels" includes Jules Leclercq's interesting "Un Séjour dans l'île de Java"; D. Siffert's book on South Africa; A. Poskin's "Afrique Équatoriale" and Marie Godelieve's charming "Six Ans au Congo," both on the Belgian Congo; and the books by F. Wodon and A. Berthet on Mexico and G. Kaiser and J. Bernard de Fauconval on Canada. Note-worthy bibliographical works are L. Gilliodts Van Severen's "L'Œuvre de Jean Brito, Prototypographe Brugeois" (Brito once again credited with the invention of printing); a work on Belgian printers abroad, by Paul Bergmans; a history of two centuries of periodicals and pamphlets at Louvain, by A. Berrewaerts; O. Colson's history of "L'Almanach de Matthieu Laensbergh et l'Almanach des Bergers"; and Victor Chauvin's "Bibliographie Arabe" (Part II). Sociological works of value are Émile Waxweiler's "La Participation des Ouvriers aux Bénéfices"; "Le Travail de Nuit des Ouvrières de l'Industrie dans les Pays étrangers," by Maurice Ansiaux; A. Carlier's "La Belgique dentellière"; "Le Socialisme en Belgique," by J. Destrée and E. Vander Velde; P. Verhaegen's "Socialistes anglais"; Henri de Kerchove d'Exaerde's "De l'Enseignement obligatoire en Allemagne"; and Louis Frank's "La Femme Avocat" (an "eloquent and well-documented piece of pleading"). Godefroid Kurth's "La Frontière linguistique en Belgique et dans le Nord de la France" is an important work on "the fluctuations of French and Flemish." Fine arts are treated in D. Joseph's "Histoire de la Peinture de la Renaissance italienne"; Lucien Solvay's monograph on the landscape painter Théodore Verstraete; Maurice Kuffe-rath's study of Wagner's "Meistersinger"; Georges Fekhoud's "Peter Benoit, sa Vie et ses Œuvres"; J. G. Fréron's "La Vie et l'Art en Autriche-Hongrie" ("some curious views upon the musical movement"). In literary criticism there are Léon Mallin-gers' "Médée" ("interesting study of comparative literature"); Father H. Nimal's book on mediæval authors; Ch. Saroléa's "Essays in Philosophy and

Literature"; E. Cattier's "Le Naturalisme litté-raire"; a work by Deschamps, Godenne, Legrand, and Thiery on De Monge, Mgr. Cartuyvels, Van Tricht, Kurth, and other Belgian Roman Catholic *littérateurs*; and a volume by François Carez on Verlaine, France, and other contemporary authors. Noteworthy prose fiction includes Arnold Goffin's "Hélène"; Eugène de Molder's "Sous la Robe" ("impressions of the Palais de Justice"); Franz Mahutte's "Le Caprice des Heures"; J. Chot's "Legendes et Nouvelles de l'Entre-Sambre et Meuse"; and Paul Leclercq's "L'Étoile rouge." Poetry of note is found in "La Cithare," by Valère Gille; Iwan Gilkin's "La Nuit"; and Charles van Lerberghe's "Entrevisions."

Flemish works on national history include popular books on the "Guerre des Paysans," by Osw. Robijns, Pattijn, and Opdebeeck; A. Vermast's "Generaal Vander Meersch"; a biography of Mgr. Seghers (head of the Roman Catholic missions of Alaska), by Maurice de Baets; Paul Fredericq's "Geschiedenis der Inquisitie in de Nederlanden" (Vol. II); and "Toponymische Studie over de oude en nieuwere Plaatsnamen der Gemeente Bilsen," a capital study by J. Cuvelier and C. Huysmans. Paul de Witte, a tailor, offers an original and im-partial "Geschiedenis van Vooruit" (the socialist club of Ghent). F. Vanden Weghe studies the transformations in the teaching of Flemish in Bel-gium since 1830; Emiel Vliebergh explains the laws on the official use of the national languages in Switzerland. (The Flemish language has been recog-nized as an official one, and laws are now passed in both French and Flemish, and so printed.) K. Deflou and E. Gailliard have printed a third report on their search for mediæval Flemish manuscripts in England. H. Claeys delivered two discourses commending the poet Ledeganck and the philolo-gist David, "two of the founders of the school of Flemish literature after the Belgian revolution of 1830." Beside "prose volumes of a clerical tend-ency" by Mlle. E. Belpaire, Em. de Graye, and A. Stevens, four works of true originality are noted: Emmanuel de Bom's "Wrakken"; Maurits Sabbe's "Aan't Minnewater" (clever sketch of life in Bruges); Virginie Lovelling's "Madeleine" ("fine study of a very complex female temper"); and "Schoppen-boer" (a record of the crime and shame of brutal-ized Flemish peasants), by Cyriel Buysse, the "Flemish Zola." Poetry of note includes Pol de Mont's archaic "Van Jezus"; l'Abbé Guido Ge-zelle's "Rijmsnoer om en om het Jaar" (in the west Flemish dialect); Theo. Coopman's "Kinderlust" (poetry for children); Jan Bouchery's "Gedichten en Gezangen" (unequal in merit); a new volume by Miss Hilda Ram; and the *débuts* of R. de Cneudt, Van Hanswijck, Reinaard, Anemona, and Van Haute. Among the mass of dramatic productions are three of decided originality: "Koning Hagen," by Hui-bert Melis; "De Bruid van Quinten Metsys," by Hendrik de Marex; and Alfred Hegenscheidt's "Starkadd." J. W. Muller and L. Scharpé issue the unpublished plays of Cornelius Everaert, a dramatist of the sixteenth century of Bruges.

A curious phenomenon is the movement of the German-speaking element (about 50,000). The "Deutsche Verein," founded 1892 (President, G. Kurth), established free German libraries, supported two German papers, and published an interesting volume on "Das deutsche Belgien." Works by in-dividual authors are H. Bischoff's "Ludwig Tieck als Dramaturg" and the valuable "Die Kritik in der englischen Literatur des XVII. und XVIII. Jahrhunderts," by Paul Hamelius (Leipzig).

Bohemia.—New historical works are Lacina's "General Chronicle," and Kosina's "History of the World." I. J. Vráz has written an interesting ac-

count of his travels. K. B. Mádl furnishes the text for a fine book on architect Dienzenhofer's villa "America." V. Flajšhans is the author of a work on Bohemian literature. Bibliography, not especially cultivated here, is represented by J. Truhlář's able catalogue of a rich collection of manuscripts in the University Library of Prague, and the "Bibliographic Catalogue for 1895," a record of contemporary literature.

A. Rochazka, in "Monatsschrift für neue Literatur und Kunst", October, 1897, tells us that "Bohemian literature, the older as well as the younger, can not show a novel of lasting worth. We find praiseworthy attempts at social and psychological works of a larger style, but this work of art still awaits its creator," and the "drama is at a low ebb." The list of fiction is long: A. Jirásek's historical novel "U nás" (glowing style); J. Zeyer's "In the Dawn of the Gods" and "The House of the Drowned Star"; three stories of the life of the middle class, by Rais; Ig. Hermann's "Father Kondelík and his Son-in-law Vejvara" (on Prague's humbler citizens); collections of short stories such as "On the Thread of Humor," by Herites, and Sova's "Prose"; Slejhar's "Zátěš" (vigor; "sympathy for the oppressed"); "A Poisoned Rose," by the late V. Kosmák, a collected edition of whose writings has been announced; and Laichter's "After the Truth" (attempts to describe life of Bohemian students). Noteworthy poetry is found in J. Vrchlický's lengthy "Bar-Kochba," "Bunch of Lyrics," and "Portraits of Poets"; and S. Čech's powerful narrative poem "Roháč na Sioně," published in his monthly, "Květy." L. Quis has collected and edited the scattered poems of Havlíček, "the first and best of Bohemian journalists." "Dramatic literature," says a Bohemian writer, "appears . . . to have received a new impulse, in consequence, perhaps, of the lively interest awakened by the attempts to establish a second Bohemian theater in Prague." In this field we have Hilbert's play "For God" (representing struggle between belief and unbelief; prohibited by the authorities); Zeyer's fairy play "Raduz a Mahulena" (beautiful language, deep feeling); Vrchlický's comedy "King and Fowler"; Kvapil's fairy play "Princess Dandelion"; Mašek's faithful picture of the life of "Students"; and Stech's "Fireland" (satire upon small-town life). Two operas are added: Fibich's "Sárka," libretto by Agnes Schulz, and Kovářovic's "Psohlavci," libretto by Sipek (powerful plot).

Denmark.—Some new historical works are N. P. Jensen's "Den første slesvigske Krig, 1848-'50"; H. C. A. Lund's "Studentenforeningens Historie, 1820-'70. Dansk Studenterliv i det 19. Aarhundrede" (Vols. I and II); and E. A. Svedstrup's "Fra Kong Georgs Land under Krigen 1897." Johannes Jørgensen, a convert to Romanism, in "Helve-desfjender" (supporting the doctrine of hell), eloquently defends the Church. O. Hansen traces "Filosofien i Danmark i det 18. og 19. Aarhundrede," and C. Koch writes of "Søren Kierkegaard." Literary criticism is supplied in a volume on "Henrik Ibsen" (published on the occasion of Ibsen's seventieth birthday) by Georg Brandes, who also presents a work on "Poland" (observations and thoughts on conditions and moods of the land and the people; somewhat eulogistic); J. Paludan's "Émile Zola og Naturalismen"; and T. Bierfreund's "Shakespeare og hans Kunst." F. R. Fris offers a "Bidrag til dansk Kunsthistorie." Kristoffer Nyrop's "Kysset og dets Historie" is a "beautiful and most learned piece of pleasantry."

We are told that the literary movement which began some twenty-five years ago with the lectures of Brandes is ebbing fast. This movement, called realism by some, Brandesianism by others, and nat-

uralism by Brandes himself, developed better literary methods, a closer study of Nature, and a wider range of themes. "Finally, it waged a warfare against authority which . . . has long ago passed all reasonable boundaries." And this has brought on a reaction. The year's fiction includes "Lykens Blændværk," a miserable story of marital immorality, by Edvard Brandes (conveys an impression of hopelessness, like much of the naturalistic literature); Jacob Hansen's "En kritisk Tid" (the hero a weak-willed philosophizer; the author a "prophet of unmitigated worship of Nature, especially sexual nature"); "Kristian Vesterbro" (a portrait of the Copenhagen tramp), by Karl Larsen, whose "Modet og den blanke Klinge" is a vivid picture of Spain, drawn with acute observation and solid judgment; Holger Drachman's melodrama "Brav Karl" (variously described as "delightful" and "unsuccessful"); Gustav Wied's curious "H. C. Andersen. Stemninger og Eventyr" (stories in Andersen's manner; unlike the author's previous work); Carl Ewald's humorous and imaginative "James Singleton's store Udenlands Rejse"; and K. Gjellerup's "Ved Grændsen." Poetry has been published by Niels Möller, Stuckenberg, Valdemar Rørdam, Recke, and Georg Brandes (who has issued his early poems). Dramatic literature is represented by Einar Christiansen's politico-social drama "Cosmos" (much praised; forceful, at times obscure; chief characters are puppets); and K. Gjellerup's "Gift og Modgift. Komædie i fem Akter og paa Vers."

In the "Nordisk Tidskrift" for 1897 Vilhjalmar Jónsson had an interesting contribution on "Newer Icelandic Literature." Hannes Hafstein (lyrical writer) and Gestur Pálsson (novelist) being among the writers referred to. K. Gíslason's "Forelæsninger og videnskabelige Afhandlinger" was published at Reykjavik in 1897.

"Kajakmæn," stories collected and translated into Danish by Signe Rink (first samples of Greenlandish literature which have come to us), is interesting, giving clear pictures of the people. First printing establishment opened 1861, producing the journal "Atu agagdluitt," from which the present collection is taken, and which still exists.

France.—Titles in national history are ever numerous. They include: "Tableau de la France en 1614. La France et la Royauté avant Richelieu," by G. Hanotaux; R. Monlaur's "La Duchesse de Montmorency 1600-'66"; "Le grand Condé, son Fils le Duc d'Enghien, son Petit Fils le Duc de Bourbon (1630-1684) par Henri Chérot (a study in the education of princes); "L'Alsace au XVII^e Siècle," by Reuss; Comte A. de la Borderie's "Histoire de Bretagne" (Vols. I and II); F. A. Aulard's "Études et Leçons sur la Révolution française. 2^e Série"; Edme Champion's "La France d'après les Cahiers de 1789" (1897); Charavay's biography of Lafayette (historically, excellent; as literature, indifferent); Frantz Funck-Brentano's interesting and admirably written "Legendes et Archives de la Bastille" (upsetting the popular idea of the prison); André Lebon's "Cent Ans d'Histoire intérieure, 1789-1895"; "Campagnes de Crimée, Italie, Afrique, Chine, Syrie. Lettres adressées au Maréchal de Castellane"; G. Bapst's "Le Maréchal Canrobert. Souvenirs d'un Siècle" (Vol. I); and I. V. Laborde's "Léon Gambetta. Biographie psychologique." New Napoleonic literature includes the useful "La Jeunesse de Napoléon: Brienne" and "La Jeunesse de Napoléon: La Révolution," by A. Chuquet (indefatigable and exact, but rather overwhelmed by his documents); "Davout, Maréchal d'Empire, Duc d'Auerstaedt, Prince d'Eckmühl: 1770-1825," by Count Vigier (his grandson); F. Masson's minute description of "L'Existence

d'une Impératrice" (Josephine); and Ernst la Jeunesse's queer "Imitatio Napoleonis" (not quite comprehensible; a Nietzsche-like "Uebermensch" following the great emperor). The Dreyfus affair has called forth a swarm of books and pamphlets, including much anti-Semitic matter, by P. Marin, A. Réville, R. Viau, B. Lazare, É. Zola ("Humanité—Vérité—Justice"), Y. Guyot ("Revision du Procès Dreyfus"), J. Grand-Carteret ("L'Affaire Dreyfus et l'Image," 1897), J. DeFrance, J. Bahar, and others. Miscellaneous historical works are O. G. de Heidenstam's "Une Sœur du grand Frédéric, Louise Éléonore, Reine de Suède" (said to be in part a plagiarism); Waliszewski's "Marysienka" (wife of Sobieski); the Comte d'Haussonville's "La Duchesse de Bourgogne et l'Alliance Savoyarde sous Louis XIV"; Alfred Baragnon's somewhat heavy "La Maison de Savoie et la Triple Alliance au XVII^e Siècle"; the Duc de Broglie's fine "L'Alliance autrichienne" (at opening of the Seven Years' War), a model in clearness and ease of style; André Lefèvre's "L'Histoire: Entretiens sur l'Évolution historique" (inaccurate, careless); Douchy's "La Guerre turco-grecque de 1897"; and C. Benoist's "L'Espagne, Cuba, et les États-Unis" (anticipating the annexation of Cuba). The science of history forms the theme of Renouvier's "Philosophie analytique de l'Histoire" and the instructive "Introduction aux Études historiques," by Ch. V. Langlois and Ch. Seignobos. In the section "Travel and Description" are noted the observant Th. Bentzon's "Choses et Gens d'Amérique" (clever and agreeable, mainly on social topics); Pierre Loti's "Figures et Choses qui passaient" (descriptive of the Basque country); and A. Bertrand's "Au Pays des Ba-Rotsi, Haut-Zambéze. Voyage d'Exploration en Afrique." A. Fouillée studies the "Psychologie du Peuple français"; Gaston Routier is severely critical in "Grandeur et Décadence des Français"; R. Gonnard explains "La Dépopulation de la France"; Louis Legrand exhaustively traces "L'Idée de la Patrie"; Edouard Demolins, in "A quoi tient la Supériorité des Anglo-Saxons," urges that the children of France be made more self-dependent, and in "Les Français d'Aujourd'hui: Les Types sociaux du Midi et du Centre," he describes unsatisfactory conditions. J. Novicow predicts "L'Avenir de la Race blanche. Critique du Pessimisme contemporain." Delarue de Beaumarchais expounds "La Doctrine de Monroe." Further sociological works are Albert Métin's noteworthy "Le Socialisme en Angleterre"; Ch. Andler's "Les Origines du Socialisme d'État en Allemagne"; E. Levasseur's "L'Ouvrier américain"; Macé's "Place à la Femme, surtout dans l'Enseignement secondaire"; and C. Wagner's "Autour du Foyer" (a sensible book on home life). New works on religious subjects are Auguste Sabatier's "Esquisse d'une Philosophie de la Religion d'après la Psychologie et l'Histoire" (conclusions not very clear); Victor Charbonnel's curious "Le Congrès des Religions"; the positivist Pierre Lafitte's "Le Catholicisme"; G. Goyau's "L'Allemagne religieuse"; G. Fonsegrive's "Catholicisme et Démocratie"; and Maigron's "Le P. Hecker est-il un Saint." "John Stuart Mill: Correspondance inédite avec Gustave d'Eichthal (1828-1842-1864-1871)" is edited by Eugène d'Eichthal. In literary criticism, again a voluminous section, we have Joseph Texte's "Études de Littérature européenne" (serious, careful; few original views); Émile Faguet's "Drame ancien, Drame moderne"; Mme. A. Barine's "Névrosés" (a study of literary pathology in the cases of Gérard de Nerval, Poe, etc.); "La Poesie italienne contemporaine," by Jean Dornis; F. Brunetière's important, comprehensive "Manuel de l'Histoire de la Littérature française"; René Doumic's new series of "Études sur l'His-

toire de la Littérature française"; the Vicomte de Broc's pleasant, though not original, "Propos littéraires"; Georges Meunier's "Le Bilan littéraire du XIX^e Siècle" (interesting; not strikingly original); Louis Bertrand's "La Fin du Classicisme et le Retour à l'Antique dans la seconde Moitié du XVIII^e Siècle et les premières Années du XIX^e, en France" (thorough); "L'Élégie en France avant le Romantisme. De Parny à Lamartine, 1778-1828," by Henri Potez; L. Maigron's capital "Le Roman historique à l'Époque romantique. Essai sur l'Influence de Walter Scott"; Antoine Benoist's "Essais de Critique dramatique" (treating of Sand, Musset, Feuillet, Augier, and Dumas *filé*); Henri Michel's "Le Quarantième Fauteuil" (articles from the "Temps" on "receptions" of new academicians); Stéfane Pol's "Trois grandes Figures" (i. e., George Sand, Flaubert, and Michelet); and the following works on individual authors: P. Bonnefon's "Montaigne et ses Amis" (2 vols.); the late Charles Livet's "Lexique comparé de la Langue de Molière" (third and last volume); G. Lanson's valuable study "Corneille"; G. Larroumet's interesting "Racine" (modern, analytic criticism) and A. Filon's "Mérinée," both in series "Les grands Écrivains français"; Maurice Souriau's study of "Pascal" (in series "Classiques populaires"); Joseph Vianey's "Mathurin Regnier"; Paul Stapfer's "Bossuet—Adolphe Monod"; the Duc de Broglie's "Voltaire avant et pendant la Guerre de Sept Ans" (a study of his relations with Louis XV and Frederick the Great); Eugène Bouvy's interesting "Voltaire et l'Italie" (relations with Italian authors); "Geoffroy et la Critique dramatique sous le Consulat et l'Empire," by Des Granges; Ernest Zyromski's "Les Sources de la Poésie lyrique de Lamartine"; "Lettres inédites de Lamennais à Montalembert" and "Un Lamennais inconnu" (letters to Benoit d'Azy); "Montalembert," by the Vicomte de Meaux (noteworthy, though not final); Maurice Souriau's "La Préface de Cromwell" (of Hugo); Mme. Darmesteter's remarkable "La Vie de Ernest Renan"; the interesting "Correspondance de Renan avec M. Berthelot, 1847-'92"; Léon Daudet's touching homage to his father, "Alphonse Daudet"; "Verlaine intime," by Charles Donos (brutally frank); Patern Berrichon's "Vie de Jean-Arthur Rimbaud" (known from his connection with Verlaine); E. Rod's "Essai sur Goethe" (shows thorough knowledge of subject); "Henri Heine," by J. Legras; Henri Lichtenberger's "Richard Wagner, Poète et Penseur" and "La Philosophie de Nietzsche"; and Ernest Seillière's "Ferdinand Lassalle." Vicomte E. M. de Vogüé's essays "Histoire et Poésie" show nobility of thought and elegant style. François Coppée's "La bonne Souffrance" consists of articles published during his long and bravely borne illness.

Specially noteworthy novels of the year are Zola's "Paris" ("more interesting . . . and significant than 'Rome' or 'Lourdes,'" says Brunetière; Zola "has learned nothing and forgotten nothing. Paris is not so much the subject as the 'dechristianization' of the Abbé Pierre Froment"); the late Alphonse Daudet's "Soutien de Famille" (a warning against the decadence of French character; will rank among his best); Anatole France's original "Le Mannequin d'Osier" (a "philosophical novel" with a minimum of plot, a "most lively and ironical impression of the life of to-day"); Paul Bourget's "Complications sentimentales" (three stories; extraordinary powers of analysis); André Theuriet's "Boisfleury" and "Le Refuge"; "Jacquine Vapesse," a "romantic novel," by Victor Cherbuliez; Edouard Rod's masterpiece "Le Ménage du Pasteur Naudé" (a story of French Protestant life); "Le Désastre," by Paul and Victor Marguerite, a tragic picture of the Franco-German War; "Les Déracinés," by Maurice

Barrès (first of a series offering a psychological study of France since 1870; surcharged with details, but a serious work by a reflective spirit); Marcel Prevost's "Trois Nouvelles" (three stories; his best); "La Femme et le Pantin. Roman espagnol," by Pierre Louys, a stylist of extraordinary virtuosity (style delicate, even "chaste"; not exactly for "the young person"). Further prose fiction: Rémy Saint-Maurice's "Temple d'Amour"; "Golo," by Pol Neveux; Jean Thorel's "Devant le Bonheur"; "Le Secret du blessé," by P. Sales; J. H. Rosny's "Un autre Monde" and "Les Retours du Cœur" (charming, sentimental); P. Maël's "La Roche-qui-tue" and "Marc et Lucienne"; E. Daudet's "La Mongautier. Roman des Temps révolutionnaires"; Michel Corday's "Confessions d'un Enfant du Siècle"; Maindron's "Saint Cendre"; "Cœurs en Détresse," delicate impressions by Gabriel Mourey; "Le Roi de Paris" and "Vieilles Rancunes," by G. Ohnet, "the E. P. Roe of France"; Marcelle Tinayre's "La Rançon" (delicately feminine); Charles le Goffic's "Morgane" ("written for young girls") and "La Payse"; André Lichtenberger's "Mon petit Trott" (a fine, searching study of the child soul); Gyp's usual batch, including "Journal d'un Grinchu" (on the Dreyfus affair, etc.); and new books by R. Maizeroy, Richard O'Monroy, M. Montégut, and E. Delpit. New poetry by the young men includes the Vte. de Guerne's "Les Siècles morts" and "Bois sacré"; Henri de Regnier's "Jeux rustiques et divins"; Samain's "Au Jardin de l'Infante" ("insinuating and winning charm"); Francis Vielé-Griffin's "La Clarté de Vie" (does some violence to prosody); Henri Ronger's "Poèmes fabuleux" (rather rhetorical); Georges Druilhet's "Le Temps des Lilas" (pleasant, not very original); Jean Richepin's "Les Caresses"; and Marcel Rouff's "Les Hantaines" (shows faults as well as talent). A number of notable plays have been produced: François de Curel's "Repas du Lion" (deals with the labor problem in an "intrepid, ingenious, if slightly incoherent manner"; eloquent passages, but not well carried out); Octave Mirbeau's "Les mauvais Bergers" (also a "labor-and-capital" play, not free from sensationalism; generous feeling, but want of moderation); Jules Lemaitre's "L'Ainée" (scene laid in French Protestant circles; firm, supple, and delicate style); E. Rostand's triumphantly successful "Cyrano de Bergerac" (romantic drama, generally and enthusiastically praised for its beautiful language and exquisite sentiments; some critics not so eulogistic, one speaking of "banal but graceful rhymes"; exceedingly skillful construction conceded by all); Dubout's "Frédégonde" (pseudo-classic tragedy); Richepin's "Martyre" ("melodrama of the false romantic sort") and "Le Filibustier" (comedy); and Haraucourt's "Don Juan de Manara" (brilliant verse, weak characterization) and Georges de Porto-Riche's "Le Passé" (bold, penetrating, and unpleasant observation), both ardently sensual. Further dramatic productions are Sardou's "Paméla" (a dramatized anecdote of the Revolution, "an historic vaudeville"; ingenious, superficial); "Medea," by Catulle Mendès, written for Sarah Bernhardt; "Le trois Filles de M. Dupont," comedy by Brieux (not entirely coherent; shows progress); "Mariage bourgeois" ("simple and poignant drama"; "rare intensity of emotion"); "Jalousie, Médor, Petites Folles" ("the action is only vaudeville, the characters are comedy, and the dialogue is 'infiniment spirituel'"); and "Rosine" (successful) by Alfred Capus; Leclercq and Bisson's "Jalousie"; Abel Hermant's "Transatlantiques" (deals with life of American millionaires on the Continent; delicate wit and fancy; strong dash of farce); Henri Lavedan's comedies "Catherine" (sentimental) and "Le nouveau Jeu";

Pierre Veber's "Julien n'est pas ingrat" (a diverting *sainete*); "L'Afranchie," comedy by Maurice Donnay (naturalness of dialogue); Pierre Wolf's "Le Boulet" (sharp observation, spirited dialogue); "Lysiane," by Romain Coolus (produced by Sarah Bernhardt; "vital energy, mediocre"); Ambroise Janvier's rather farcical comedy "Mon Enfant"; Louis Bouilhet's "Mœnis" (curious, lifelike picture of Roman customs); D. Valabrégue's one-act comedy "Le quatorzième Convive"; and "L'Enfant du Mari," comedy by Mme. Jane Meyerheim and Serge Rello (produced at the Théâtre Féministe, established for women playwrights).

New Provençal publications are "La Terreur" (rich color, swift action) by Félix Gras and Alphonse Tavan's play "Li Mase" (remarkable local success). Some critics have noted a growing influence of the Province as a subject of and a force in French literature, and ask: "Is French literature becoming decentralized? Is Paris losing its commanding pre-eminence?"

Germany.—Noteworthy contributions to national history are Hermann Grimm's "Neue Beiträge zur Culturgeschichte"; F. Zarncke's "Aufsätze und Reden zur Kultur- und Zeitgeschichte" ("Kleine Schriften," Bd. II); Elard Hugo Meyer's "Deutsche Volkskunde" (dealing particularly with the life of the peasantry); Friedrich von Keussler's "Der Ausgang der ersten russischen Herrschaft in den gegenwärtigen Ostseeprovinzen im XIII. Jahrhundert"; E. K. Daenell's noteworthy "Geschichte der deutschen Hanse in der zweiten Hälfte des 14. Jahrhunderts"; "Aus des Grossen Kurfürsten letzten Jahren. Zur Geschichte seines Hauses und Hofes, seiner Regierung und Politik," by Hans Prutz; the late Max Lossen's excellent and thorough "Der Kölnische Krieg," Vol. II (Vol. I, 1888); Gust. Heinr. Schneider's "Die Burschenschaft Germania zu Jena. Eine Festschrift"; Js. Emmer's "Kaiser Franz Joseph I. 50 Jahre österreichischer Geschichte, Jubiläums-Ausgabe," Vol. I, 1848-'59; Ernst Victor Zenker's "Die Wiener Revolution 1848 in ihren sozialen Voraussetzungen und Beziehungen"; Hs. Blum's "Die deutsche Revolution, 1818-'49" (important); Stephan Born's "Erinnerungen eines Achtundvierzigers"; Prinz Kraft zu Hohenlohe-Ingelfingen's "Aus meinem Leben," Vol. I, 1848-'56 (important); Theodor Fontane's charmingly personal "Von zwanzig bis dreissig. Autobiographisches"; K. Jansen's "Schleswig-Holstein's Befreiungskampf" ("a belated protest against the incorporation of the duchies into the Prussian monarchy"), completed by K. Samwer; "Feldzugsbriefe des Generals der Kavallerie Graf Wartensleben-Carow, im deutsch-französischen Kriege vom 1870"; and G. W. Buxenstein's "Unser Kaiser. Zehn Jahre der Regierung Wilhelms II. 1888-'98." New Bismarck literature includes the prince's own long-expected memoirs, "Gedanken und Erinnerungen" (introduction and notes by Horst Kohl); Moritz Busch's "Bismarck und sein Werk. Beiträge zur inneren Geschichte der letzten Jahre bis 1896" (of no great historical importance; met with a storm of adverse criticism; admitted by many to be a faithful, frank portrayal of Bismarck; some new truths, diminishing halo of William I); H. v. Posching-er's "Fürst Bismarck und der Bundesrat" (Vol. IV, 1878-'81); Js. Penzler's "Fürst Bismarck nach seiner Entlassung," 6 vols. (1897-'98); etc. In our 1895 report a list of works, mostly serial publications, on local history was given; this is here supplemented by the following titles, entered without comment: "Badische Bibliothek. Systematische Zusammenstellung selbständiger Druckschriften über die Markgrafschaften, das Kurfürstenthum

und Grossherzogthum Baden"; "Baltische Studien. Neue Folge. Herausgegeben von der Gesellschaft für pommerische Geschichte und Alterthumskunde"; K. Köstler's "Handbuch zur Gebiets- und Ortskunde des Königreichs Bayern, mit Unterstützung des königl. bayerischen Ministeriums des Innern herausgegeben"; G. Ratzinger's "Forschungen zur bayrischen Geschichte" (1898); W. Altmann's "Ausgewählte Urkunden zur brandenburgisch-preussischen Verfassungs- und Verwaltungsgeschichte" (1897); "Braunschweigische Bibliographie. Verzeichniss der auf die Landeskunde des Herzogthums Braunschweig bezüglichen Litteratur. Bearb. und hrsg. vom Verein für Naturwissenschaft zu Braunschweig"; W. v. Bippin's "Geschichte der Stadt Bremen"; Paul van Niessen's "Geschichte der Stadt Drumburg. Festschrift zur Jubelfeier ihres sechshundert-jährigen Bestehens"; "Quellenschriften der elsässischen Kirchengeschichte"; "Beiträge zur Landes- und Volkskunde von Elsass-Lothringen"; Jos. Probst's "Geschichte der Stadt und Festung Germersheim" (1898); H. W. E. Hübbe's "Beiträge zur Geschichte der Stadt Hamburg und ihrer Umgegend"; W. v. Hassell's "Geschichte des Königreichs Hannover" (1897); "Urkundenbuch der Stadt Hildesheim. Im Auftrage des Magistrats zu Hildesheim herausgegeben von Reh. Doeberner"; H. Brandis's "Diarium. Hildesheimische Geschichten aus den Jahren 1471-1528. Herausgegeben von L. Haenselmann" (1896); "Geschichte der Grafschaft Hohenzollern im 15. und 16. Jahrhundert (1401-1605)," by P. Manns (1897); "Die Konstanzer Rathslisten des Mittelalters. Hgb. von der badischen historischen Kommission, bearb. von Konrad Beyerle" (1898); Gst. Wustmann's "Aus Leipzig's Vergangenheit. Gesammelte Aufsätze. Neue Folge" (1898); "Urkunden-Buch der Stadt Lübeck. Herausgegeben von dem Vereine für lübeckische Geschichte und Alterthumskunde"; F. Schlie's "Die Kunst- und Geschichts-Denkmäler des Grossherzogthums Mecklenburg-Schwerin." I. Bd. (1896); "Osnabrücker Urkundenbuch, im Auftrage des histor. Vereins zu Osnabrück bearb. u. hrsg. von F. Philippi," Vol. II (1896); "Osnabrücker Geschichtsquellen, hrsg. vom historischen Verein zu Osnabrück"; Hm. Dannenberg's "Münzgeschichte Pommerns im Mittelalter. Nachtrag" (1897); "Urkundenbuch der Stadt Rottweil. I. Bd., bearb. von Heinrich Günter"; "Geschichtsquellen der Provinz Sachsen und angrenzender Gebiete. Herausgegeben von der historischen Commission der Provinz Sachsen"; "Codex diplomaticus Silesie. Herausgegeben vom Vereine für Geschichte und Alterthum Schlesiens. XVIII. Bd." "Schleswig-Holstein-Lauenburgische Regesten und Urkunden. Im Auftrage der Gesellschaft für Schleswig-Holstein-Lauenburgische Geschichte bearbeitet und herausgegeben von P. Hasse." III. Bd. (1891-40); Fr. L. Baumann's "Forschungen zur schwäbischen Geschichte" (1898); "Urkundenbuch der Stadt Strassburg," Vol. V (1895-96); Gst. Willgeroth's "Geschichte der Stadt Wismar" (1897); "Württembergische Geschichtsquellen, im Auftrage der württembergischen Commission für Landesgeschichte hrsg. von Dietrich Schäfer," Vol. III (1896); W. Heyd's "Bibliographie der württembergischen Geschichte." II. Bd. (1896); A. Ambrassat's "Die Provinz Ostpreussen. Bilder aus der Geographie, Geschichte und Sage unserer Heimatprovinz" (1896); "Urkunden zur Geschichte der Deutschen in Siebenbürgen. Herausgegeben vom Ausschuss des Vereins für siebenbürgische Landeskunde"—all forming material for history. To these are added the Austrian works. "Quellen und Forschungen zur Geschichte, Litteratur und Sprache Oesterreichs und seiner Kronländer. Durch die Leo-Gesellschaft herausgegeben von J. Hirn und

J. E. Wackernell." V. Bd. (1897); "Geschichte der Stadt Wien. Hrsg. vom Alterthumsvereine zu Wien. Redigiert von H. Zimmermann"; "Beiträge zur deutsch-böhmischen Volkskunde. Hrsg. v. d. Gesellsch. zur Förderung deutscher Wissenschaft, Kunst u. Literatur in Böhmen"; "Monumenta historica ducatus Carinthiae. Geschichtliche Denkmäler des Herzogthums Kärnten." II. Bd. (1898). Interest in family history is shown in such works as Alex. Budberg-Gemauert-Poniemon's "Beiträge zu einer Geschichte des Geschlechtes der Freiherrn von Bönninghausen genannt Budberg" (1898); "Geschichtsquellen des burg- und schlossgesessenen Geschlechts v. Borcke. Im Auftrage des Familien-Vorstandes herausgegeben von G. Sello"; "Lehrbuch der gesamten wissenschaftlichen Genealogie," by O. Lorenz (1898); Alex. Dietz's "Frankfurter Bürgerbuch. Geschichtliche Mittheilungen über 600 bekannte Frankfurter Familien aus der Zeit vor 1806" (1897). Further historical works are Friedrich Ludwig's "Untersuchungen über die Reise- und Marschgeschwindigkeit im XII. und XIII. Jahrhundert" (of "culture-historic" interest); Ludo Moritz Hartmann's "Geschichte Italiens im Mittelalter"; C. A. Fetzner's "Aus dem thessalischen Feldzuge der Türkei, Frühjahr, 1897"; and Admiral M. Plüddemann's "Der Krieg um Cuba." Miscellaneous biographical works are "Emin Pascha: Darstellung seines Lebens und Wirkens," by his cousin, Georg Schweitzer; the "Briefwechsel mit seinen Freunden" of the "Weinsberg poet and visionary" Justinus Kerner, "who corresponded with half the great men of his time"; and "Briefwechsel zwischen Erzherzog Johann Baptist von Oesterreich und Anton Graf von Prokesch-Osten." In geography and travel we have Friedrich Ratzel's "Politische Geographie"; Julius Scherff's frank "Nord Amerika: Reisebilder, sozialpolitische und wirtschaftliche Studien aus den Vereinigten Staaten"; Wilhelm Geiger's scholarly "Ceylon: Tagebuchblätter und Reise-Erinnerungen"; Paul Rohrbach's "In Turan und Armenien" (of exceptional merit); E. Kunhardt's "Wanderjahre eines jungen Hamburger Kaufmannes. Eine Reise um die Erde in 777 Tagen"; and "Die Bulgaren. Ethnographische Studien," by Adolf Strauss. Franz Hümmerich furnishes the first German work on "Vasco da Gama und die Entdeckung des Seewegs nach Ostindien" (critical use of documents; no cartographic study). The interesting question of colonies is dealt with in Alfred Zimmermann's "Die Europäischen Kolonien" (perspicuous, impartial); Karl Dunker's "Kolonien und Kolonisation" (considers efforts of the Germanic race as most effective); and Esser's "An der Westküste Afrikas." R. Schumacher's "Kiautschau und die ostasiatische Frage. Erlebnisse aus China und der japanischen Gefechtsfront"; and "Ostasiatische Fragen" and "Kiautschau," by M. von Brandt (authoritative), meet the present interest in eastern Asia. In sociology, education, and economics there are Paul Heyse's pamphlet "Martha's Briefe an Maria: Ein Beitrag zur Frauenbewegung" (mild but earnest tone and charming style); the useful "Wie erziehen wir unsern Sohn Benjamin" by Adolf Matthias; "Politik: Vorlesungen gehalten an der Universität zu Berlin von Heinrich von Treitschke, herausgegeben von Max Cornicelius" (made up with the aid of the notes left by Treitschke); Siegfried Rietchel's "Markt und Stadt in ihrem rechtlichen Verhältniss. Ein Beitrag zur Geschichte der deutschen Stadtverfassung"; Karl Helfferich's important "Die Reform des deutschen Geldwesens nach der Gründung des Reiches"; and E. Hirschberg's "Die soziale Lage der arbeitenden Klassen in Berlin" (temperate in judgment and suggestion). Among philosophical works there are a treatise by Ferdi-

nand Tönnies (showing the waning of Nietzsche worship); John Henry Mackay's "Max Stirner: sein Leben und sein Werk," a glorification of the apostle of egoism: "Max Stirners kleinere Schriften. Hgb. von J. H. Mackay"; and Friedrich Jodl's "Psychologie" (empirical, concise, comprehensive). Literary history and criticism are supplied in the Jesuit Alexander Baumgärtner's "Geschichte der Weltliteratur" (one-sided, but comprehensive and attractively presented) and a life of Goethe (from author's standpoint); Ernst Elster's suggestive "Prinzipien der Literaturwissenschaft"; "Zur neueren Literaturgeschichte" ("Schriften zur Kritik und Literaturgeschichte") by Michael Bernays; Arthur Eloesser's instructive "Das bürgerliche Drama. Seine Geschichte im 18. und 19. Jahrhundert"; Friedrich Spielhagen's "Neue Beiträge zur Theorie und Technik der Epik und Dramatik"; "Renaissance. Neue Studien zur Kritik der Moderne" (on art and literature), by Hermann Bahr, himself quite modern; "Schwäbische Literaturgeschichte," by Rudolf Krauss; G. Waniek's monumental "Gottsched und die deutsche Literatur seiner Zeit"; Schubart's interesting "Goethe's Königsleutnant" (shown to have been Count Théa de Thorenc); "Auf Goethes Spuren in Italien," by Julius R. Haarhaus; "J. G. Seume: Geschichte seines Lebens und seiner Schriften," by O. Planer and C. Reissmann (fine literary monument); Paul Schlenker's "Gerhart Hauptmann, sein Lebensgang und seine Dichtung" (sympathetic, just, reserved), "Gerhart Hauptmann," by Adolf Bartels (oracular, presumptuous), and U. C. Woerner's "Gerhart Hauptmann" (unpretentious, thoughtful); Jacob Minor's "Ferdinand von Saar: eine Studie" (a model of sensitive and appreciative analysis); Eduard Heyck's "Geschichte der Allgemeinen Zeitung, 1798-1898" (issued in honor of its centenary; "interesting contribution to the literary and social development of the German people"); August Döring's interesting "Hamlet. Ein neuer Versuch zur ästhetischen Erklärung der Tragödie"; Hans Laehr-Zehlendorf's "Die Darstellung krankhafter Geisteszustände in Shakespeare's Dramen" (from the psychiatrist's standpoint); Erich Meyer's "Die Entwicklung der französischen Litteratur seit 1880" (suggestive; an advance on what is usually offered on this subject); Harold Höffding's "Rousseau und seine Philosophie" (clear, concise, most satisfactory commentary); and Marie Herzfeld's "Die skandinavische Litteratur und ihre Tendenzen, nebst anderen Essays." In the literature of art we have W. Nagel's very good "Geschichte der Musik in England" (1894-'97); new Brahms literature—J. V. Widmann's affectionate and appreciative character picture "Erinnerungen an Johannes Brahms," A. Dietrich's "Erinnerungen an Johannes Brahms in Briefen, besonders aus seiner Jugendzeit," "Johannes Brahms," by H. Deiters, H. Reimann's "Johannes Brahms" (hardly introspective), "Johannes Brahms. Erläuterung seiner bedeutendsten Werke, von C. Beyer, R. Heuberger und anderen" (not entirely satisfactory)—Wendelin Weisheimer's "Erlebnisse mit Richard Wagner, Franz Liszt und vielen anderen Zeitgenossen"; Hans von Bülow's letters; Theodor Billroth's "Wer ist musikalisch?" (correspondence); "Eduard von Steinle's Briefwechsel mit seinen Freunden" ("the correspondence of a German preraphaelite," of the "Nazarene" school, a "precious witness of the nobility of his intentions"); and F. F. Leitschuh's "Das Wesen der modernen Landschaftsmalerei" (incoherent, wants arrangement, says one; commendable, another). Prose fiction has its usual list of well-known names, and some unfamiliar ones: Ernst von Wildenbruch's "Tiefe Wasser: 5 Erzählungen" ("Waidfrau" the finest); Fd. v. Saar's

"Novellen aus Oesterreich" (essentially Austrian); the refined writer Adalbert Meinhardt's "Unterwegs," "Das Leben ist golden," and "Heinz Kirchner"; A. Wilbrandt's "Die glückliche Frau" (adds nothing to author's reputation); the oft-fantastic Wilh. Jensen's "Das Bild im Wasser" and "Ein Heilmittel. Novelle"; "Die Frau des Weisen," by Arthur Schnitzler (a moralist, not erotic, we are told); E. Wichert's "Monte Carlo und andere Geschichten"; Georg Freiherr von Ompteda's "Maria da Caza," "Der Zeremonienmeister" (faithful picture of affairs in Saxony, seasoned by fine humor), and "Weibliche Menschen: Novellen"; "Schwiegertöchter" and "Nachgelassene Novellen" (rather superficial), by Alexander Baron von Roberts; Adolf Stern's "Ausgewählte Novellen" (selected "with strictest self-criticism" from his published work); Adolf Pichler's "Gesammelte Erzählungen" (subjective, memoirlike stories of Tyrolean life); H. Hansjakob's sympathetic "Waldleute"; "Der Grabenhäuser," an "agrarian novel," by Wilhelm von Polenz; "Von zarter Hand," "Unter Zigeunern" and "Quitt," by J. R. zur Megede (much praised and read); "Der Ehe Ring. Novellen," by Ernst Clausen (Claus Zehren, who observes well and tells a good story); "Die Intriganten: ein brandenburgisch-preussischer Roman" and "Der gemordete Wald: ein Bauernroman aus der Mark," by Fd. v. Zobeltitz; "Antje Bergholm" and "Die Generalsgöhre" (interesting picture of military circles), by H. von Zobeltitz; "Fanar und Mayfair," by Rudolf Lindau, who again indulges his love for the exotic; Peter Rosegger's personal "Mein Weltleben, oder wie es dem Waldbauernbuben bei den Stadt-leuten erging"; Jakob Wassermann's "Die Juden von Zirndorf" (fantastically personifying the modern Jewish question by characteristic figures); Arthur Zapp's "Drei Mädchen: eine internationale Liebesgeschichte"; "Jugendgenossen. Roman," by Karl Manno (pseudonym of C. v. Lemcke), a novelist of the old school; the late Kr. Telmann's "Gottbegnadet" and "Das Ende vom Lied" (one of his best); Hs. Hoffmann's "Allerlei Gelehrte"; "Die Dithmarscher. Historischer Roman," by Adolf Bartels, the literary critic; Guido List's historic and patriotic novel "Carnuntum"; "Der Arme Conrad" (deals with Peasants' War of 1525) and "Der weisse Tod. Roman aus der Gletscherwelt," by Rudolf Stratz; Greg. Samarow's "Transvaal. Roman aus dem südafrikanischen Leben der Gegenwart" and "Eine goldene Feder"; "Sirenenliebe," by H. A. Krüger, a newcomer; "Von zwei Geschwistern," two posthumous novelettes by Otto Sachs (very promising talent, died in 1897 at the age of twenty-eight); Benno Rüttenauer's "Zwei Rassen"; Karl Bleibtreu's "Freie Liebe" (disappointing); Gustav Wolff's short stories "Die Beichte des Mönchs" (intimate soul description); Heinz Tivote's "Abschied. Novellen" (mostly "worm-eaten"); and new works by women: Ilse Frapan's new volume of old-fashioned stories of Hamburg life and "In der Stille"; the Swiss writer Goswine von Berlepsch's "Mann und Weib" (stories of Vienna); "Fräulein Doctor" (enters into the peculiar atmosphere of Zürich) and "Erzählungen" (includes 8 stories, of which "Der Mondreigen von Schlaraffs" was also published separately), by Ricarda Huch (a German living in Switzerland); Wilhelmine von Hillern's "S Reis am Wege" (comprehension of the Bavarian peasant soul; command of psychological detail); Marie von Bunsen's admirable "Ein alltägliches Paar" (dealing, like her previous works, with Berlin's upper classes); Ossip Schublin's "Wenn's nur schon Winter wär!"; Clara Viebig's "Rheinlandstöchter" and "Kinder der Eifel. Novellen" ("unusual power of indirect characterization"); "Aus dem Sonnenfimmern. Novellen und Erzählungen," by Wanda von Bartels

(noteworthy); A. v. Gersdorff's "Auf gefährvollen Pfaden," "Verkäuferischer Wert" and "Des Vaters Schuld"; N. v. Eschstruth's "Mondscheinprinzessen" and "Der Majoratsherr"; D. v. Spättingen's "Arbeitskraft"; Maria Janitschek's "Ins Leben verirrt," and "Ueberm Thal: Novelle" (hyper-psychological); "In blauer Ferne: neue Novellen," by Emil Roland (pseudonym of Frau Emmi Lewald); and Maria Louise von Suttner's first work, "Wie es Licht geworden!" (a vehicle for the author's ideas on social questions). New lyric verse includes "Neue Gedichte und Jugendlieder," by Paul Heyse, "the most brilliant representative of the classic style founded by Goethe"; Wilhelm Jensen's "Vom Morgen zum Abend: ausgewählte Gedichte" (peculiarly individual); Gustav Falke's "Neue Fahrt, Gedichte" (pure art, harmonic forms, no false note); "Stimmen und Bilder. Neue Gedichte," by Ferdinand Avenarius (placed among the best German lyrics; entirely free from modern decadence); "Tempi passati. Dichtungen," by Jenny von Reuss (erotic poems of powerful passion and carefully treated form); and "Gedichte von Johanna Ambrosius, ausgewählt von Karl Weiss-Schrattenthal," Part II. In dramatic literature the mass of productions is of medium quality and serves for amusement. Jolly farces, such as "Im weissen Rössl" and "Auf der Sonnenseite," by Blumenthal and Kadelburg; Blumenthal and Max Bernstein's farce "Matthias Göttinger"; the character picture "Mutter Thiele," by A. L'Arronge; "Die Logenbrüder," by Karl Laufs and Kurt Kraatz; "Die gute Partie," by F. v. Schönthan and Victor Leon; Josef Jarno's comedy "Momentaufnahme"; Moser's "Blauers Blut"; Carlot Reuling's farce "Anno dazumal"; Kempner-Hochstädt's "Die Nothlüge"; "Onkel Bönkost" (sentimental melodrama) by Georg Sabinus (Reike); the comedy "Das neue Weib," by Rudolf Stratz (whose "Jörg Truggenhofen" is very mediocre), hardly bear energetic dissection, and have, at best, an ephemeral success. Plays of more or less note are Gerhart Hauptmann's remarkable "Fuhrmann Henschel" (a sociological study of unhappy marriage; in Silesian dialect); J. J. David's "Neigung" ("minute character drawing"); Arthur Schnitzler's successful "Das Verächtniss"; the comedy "Wunderquelle" and the sensationally successful "Das Erbe" (inspired by the relations between Bismarck and William II), by Felix Philippi, who commands a remarkable technique, and, as one critic says, "deceives the public . . . as to his poetical impotence and the absolute worthlessness of his plays"; Ludwig Fulda's "Herrostrat" (his "most thoughtful and best work"); Max Halbe's "Der Eroberer" (a complete failure); "Gertrud" (romantic; highly interesting as literature), drama by Johannes Schlaf, the "prophet of naturalism"; Paul Heyse's "Fornarina: Trauerspiel" (interesting, but conventional in technique) and "Vanina Vanini" (tragic love drama, polished and elegant; melodramatic, but skillfully constructed); Philipp Langmann's "Bartel Turaser" ("labor" drama; well rounded, characters sharply defined) and "Die vier Gewinner" (*Volkstück*; life-like); the Viennese Zionist Theodor Herzl's "Das neue Ghetto" (the "moral Ghetto," from which the hero unsuccessfully strives to escape; excellent picture of Jewish life); Max Bernstein's "Mädchentraum" (charming verses, romantic and graceful); Felix Dörmann's surprisingly good comedy "Ledige Leute"; "Die blonde Katharine" (*Märchenspiel*), by Richard Voss; "Königskinder" (a sweetly sentimental fairy fantasy), by Frau Rosa Bernstein (Ernst Rosmer), set to music by Humperdinck; C. G. Reuling's "Der Stärkere"; Max Dreyer's "In Behandlung" and "Grossmama" (farce; natural; well-deserved success); Georg Ruseher's realistic

play "Gudrun"; Georg von Ompteda's "Eheliche Liebe" (respectable, not strong); "Das Recht des Herzens," two-act play by Ernst Possart, the actor (effective, at times theatrical); works by young men, such as Hugo von Hofmannsthal's one-act "Madonna Dianora" (a "dramatized ballad," pulsating with suppressed fire), "Tote Zeit," by Ernst Hardt (not yet mature), and Otto von der Pfordten's "Mohammed"; the *Volkstück* "S Katherl" and the comedy "Die Bürgermeisterwahl" (neither remarkably original), by Burkhard (who showed a fine appreciation of the modern movement when director of the Hofburg Theater, in Vienna); "Das grobe Hemd" (comedy), by E. Karlweiss (Viennese, good-natured humor); Felix von Stenglin's arrangement of Goethe's "Die Aufgeregten"; historic dramas, such as Josef Lauff's "Burggraf von Zollern" (inspired by Wilhelm II) and "Alarich, König der Westgothen," by Verdy du Vernois, both coolly received; the Tyrolean Karl Domanig's noteworthy dramatization of the Tyrolean struggle and Hofer's life, a "trilogy" composed of two dramas "Speckbacher" and "Der Kronenwirth von Hall," and a tragedy, "Der Sandwirth," and having also a prelude, "Die Braut des Vaterlands," and an epilogue, "Hofer's Denkmal." ("Der Kronenwirth" was acted by peasants, as the well-meaning but imperfect production of Carl Wolf has been every year, near Meran.)

Greece.—The war with Turkey has occasioned some "hasty and inferior records of its history." Historical works of note are primarily the "History of the Empire of Nicæa and the Despotism of Epirus (1204-1261)," by Anton Miliarakis (comprising material discovered since the publication of Finlay's work); "History of Trebizond from the Earliest Times to our own Day," by Tryphon Evangelides (cursory); the first connected "History of Nauplia from the Oldest Times to the Present Day," by Michael Lambrynides (praiseworthy attempt, but author ill-equipped); annals of "Dimitisana, the Famous School of Arcadia," by Jakis Kandiloros; and "Foreign Rule and Kingship in Greece, 1821-'97," by George Philaretos (views on influence of foreign intrigues on Kings Otto and George). The new edition of "History of the Church from its Founding to our Day," by A. D. Kyriakos (originally published in 1881), is practically a new work. T. Athanasiu, a Roumanian priest, offers a thorough account of "The Greek Schools in Roumania" from 1644 to 1821. C. Papamarku's polemical, brilliant "The Reading Books of the School Children of Greece" effectively criticises the commission which rejected his schoolbooks and discusses the basis of the latter. A. Vlachos has issued a rather inadequate dictionary of Neo-Greek (*Λεξικὸν ἀλφειογαλλικόν*). Philological and other studies are offered in the excellent "Illustrations of Byzantine Proverbs," by Nicolaos Politis; "Philologica," by D. Angelides; a monograph on Plato's "Laws," by Miltiades Pantazis; "Music among the Ancient Greeks and the Delphic Hymn to Apollo," by T. Polykrates; "Sea Tactics of the Ancients, after the MS. of the Ambrosiana," by K. Rados; and a catalogue of 104 codices preserved in the Hagia monastery in Andros, by S. P. Lambros. The indefatigable Papadopoulos-Kerameus has issued Vols. III and IV of *Ἀνδλεκτα ἱεροσολυμιτικῆς σταχυολογίας* (St. Petersburg) and Vol. III of "Catalogue of the Jerusalem Library," published by the Russian Palestine Syllagos, prominent among the literary societies which are actively publishing manuscript matter found in the monasteries of the Levant.

New prose fiction includes "The Dream of Jan-niris," by J. Pyscharis, who affects the popular dialect "with peculiar results"; stories by K. Passa-

jannis ("akin to folklore") and by Mme. E. Zographu (charming). In poetry we have "Grave," by K. Palamas (a moving, somewhat mysterious tribute to his little son); and "Songs of the Desert," by Petros Vassilikos (i. e., K. Hatzopoulos, a promising young poet). C. Anninos has written a comedy, "The Victory of Leonidas," and A. Provelegios a tragedy, "Rhigas," dealing with the martyrdom of the "prophet of Greek freedom," 1798.

Holland (Flemish authors under "Belgium").—The history of the Dutch Republic during 1776-'86, a "period of disgrace," is dealt with in H. T. Colenbrander's very important "De Patriottentijd. Hoofdzakelijk naar buitenlandsche Bescheiden," based on extensive research, but lacking the information contained in the still unpublished official papers of Sir Joseph Yorke (British minister at the Hague). H. J. Betz enlarges on the same period in "Dames en Heeren uit de vorige Eeuw." S. A. Naber's life of Allard Pierson is full. Jan Ten Brink, in "Brechtje Spieghele," relates an interesting episode in Hooft's life. Albert Verwey's "Toen de Gids werd Oppericht" throws new light on the family history of the Gids. Taco H. de Beer's "Woordenschat" is a useful work on national and foreign phrases. E. I. Jorissen's "Transvaalsche Herinneringen, 1876-'96," is a graphic and important bit of Boer social history. Sociological studies are numerous. Noteworthy are H. P. G. Quack's sympathetic "De Socialisten" (fourth and last volume); Helene Mercier's "Sociale Schetsen"; C. J. Wynaendts Francken's "Sociale Ethiek" (a "popular, full survey of the theory of naturalists and evolutionists"); and "Verzamelde Opstellen" (essays by the principal Dutch socialists), by F. Van der Goes. Mrs. Goekoop's highly successful "Hilda von Suylenburg" (fiction) champions the free development of woman with delightful partiality. Psychology is rendered intelligible in Frederik van Eeden's "Foundations of Intelligence." J. M. Acket's monograph on "De Imitations Christi" rather belittles Thomas à Kempis. M. Emants's descriptive "Van Heinde en Verre" is slightly monotonous. Maurits shows an artistic impressibility and an open mind in "Van Rome naar Jeruzalem." The late C. Busken Huet's "De Bruce's Josefine" is cynical but entertaining. J. Ph. Vogel has issued a painstaking, annotated Dutch version of "The Little Toy Cart" from the Sanskrit and Prakrit.

Among novels and stories there are "De Roman Van Bernard Bandt" ("romantic realism"; conspicuous failure), by H. Robbers; the late F. Roosdorp's "Kinderen" (sharp observation); Henri Borel's "Jongetje" (prettily written) and "Kwan Yin" (original view of Chinese philosophy and art); "Benjamin's Vertellingen" (rhymed; popular) by W. L. Penning, Jr.; Herman Heyerman's "Interieurs" (light sketches; good); Anna de Savornin Lohman's "Het eene Noodige" (some beautiful passages, but "altogether too wild"); "Barthold Meryan" (confused, socialistic), by Cornelle Huygens; and "Her Memory" (New York), by Maarten Maartens. "Psyche," a parable, by Louis Couperus (in "De Gids"), is an example of poetical prose. In poetry are noted "Een Koning," by Ary Prins (a "monumental piece of imaginative impressionism"); "Verzen," by P. C. Boutens (grand mastery of language, sure touch); Herman Gorter's "De School der Poezie" (second edition of "Verzen," with new poems), with a startling preface advocating poetic treatment of social subjects; and H. J. Boeken's retelling of "Floris and Blanche-foer." New plays are J. de Koo's amusing comedy "De Candidatuur van Bommel" and "Een Kriesis" (fine characterization), by M. Emants (author of "Op Zee" and "Vijftig"). P. H. van Moerkerken has published old farces in "Het Nederlandsch Kluchtspel."

A Dutch writer notes the country's recent advance in literature and art, and informs us that thrifty Holland reads Dutch books and even buys them!

Hungary.—The jubilee of the Revolution of 1848 occasioned G. Gracza's "History of the Struggle for Independence" (5 vols.); Jókai-Bródy's "1848" (a "picture book"); and Boross-Laurencic's "Album of the Struggle for Freedom." G. Lánczy's "Magyardom under the Arpáds" offers a new view of a vexed question. Noteworthy biographies are A. Zichy's work on Count Stephen Széchenyi, "the greatest of Magyars"; Dezső Malonyay's excellent "Life and Work of Michael Munkácsy"; T. Szana's biography of Károlyi Markó, landscape painter; and J. Szinnyei's valuable "Mor Jókai." Books of travel are Count Jenő Zichy's interesting "Travels in the Caucasus" (in search of the origin of the Magyars); the valuable "Bosnia and Herzegovina," by Adolf Strausz; and Gyula Pekár's attractive "South and North." The "Pallas Great Lexicon" (noticed in 1893) has been concluded with Vol. XVI. There is an unusual number of important works in sociology and economics: "The Condition of Agricultural Laborers in Hungary" (valuable; comprehensive research), prize essay by S. Milhofer; "The Result of the Reform of our Criminal Procedure" (an "essay in agricultural politics"), by the gifted Rustem Vámbéry; "Social Questions," by Gyula Dietrich (new writer: talented); Akos Navrátil's valuable prize essay on "Adam Smith's System and its Philosophical Basis"; and Eugen Gaal's "The Social System of Thomas Carlyle." Bernát Alexander writes of "Art" in a graceful and interesting way. Béla Lázár is the author of a profound study on "The Fortunatus Legend in Literature."

In fiction, the short story and the sketch stand prominent; in this *genre* we have Sándor Bródy's "The Fairy Ilona" (two stories, rich in color, national in character); Andor Kozma's "Humorous Stories"; István Petelei's "Clouds" (11 tales; individuality strongly marked); István Tömörkény's "Under the Poplars" (masterly descriptions of life on the *puszta*); István Bárony's "The Merry World" (excellent characterization and description); Jenő Heltai's "Seven Meager Years" (humorous pictures from the life of the Hungarian Bohemian); and Béla Lázár's "Moods." Novels to be noted are Gyula Werner's important "The Dawn is sure to come" (life in Transylvania) and "The Immigrants," by Mme. Szikra (pseudonym), lashing the lower gentry, known as "immigrants" among the aristocracy. New poetry includes Andor Kozma's successful, biting "Satires"; Pál Koroda's "Lyre" (beautiful form); and Lajos Palágyi's "Biblical Memories." The national drama, we are told, is in a state of decay; French art reigns supreme, and is awkwardly copied. At the same time, "gratifying progress" is reported for Hungarian literature, on the whole.

Italy.—Interesting works bearing on national history are "Storia di Roma," by Ettore Pais (Part II of his "Storia d'Italia" (thorough; oversubtle in criticism); E. Arbib's "Cinquant'Anni di Storia parlamentare"; B. Croce's "Silvio Spaventa. Dal 1848 al 1861. Lettere, Scritti e Documenti"; Alessandro d'Ancona's worthy biography of "Federico Confalonieri," the "celebrated martyr of the thought of Italian independence"; the successful "Autobiografia di un Veterano (1859-'98). Ricordi storici ed aneddotici del Generale Enrico Della Rocca"; O. Barattieri's "Memorie d'Africa (1892-'96)"; and G. Carducci's interesting monograph on "Alberto Mario: Scrittore e Giornalista, 1848-'61." Sociological topics, which always claim a fair share of attention here, are discussed in P. Chinassi's "Il

Dovere sociale della Classe dominante"; Mario Morasso's "Domini e Idee del Domani—L'Egoarchia" (preaching individualism); Ggl. Ferrero's "Il Militarismo"; and G. Mondaini's "La Questione dei Negri nella Storia e nella Società nord-americana." "Scelta di Prediche e Scritti di Frà Girolamo Savonarola, con nuovi Documenti intorno alla sua Vita," by P. Villari and E. Casanova (a worthy commentary and supplement to Villari's life of Savonarola), forms a fit commemoration of the fourth centenary of Savonarola's martyrdom. Adolfo Padovan's "Le Creature Sovrane" is a "sort of natural history of the man of genius" ("inadequate"). G. Negri's "Segni dei Tempi, Profili e Bozzetti letterari" and Aldo Maggioni's "Edipo" belong to miscellany. The section "Literary history and criticism" is voluminous. We note Luigi Rasi's "I Comici italiani" (complete history of Italian dramatic art and artists); Luca Beltrami's short biography of "Alessandro Manzoni"; Ilario Rinieri's "Della Vita e delle Opere di Silvio Pellico. Da Lettere e Documenti inediti" (the documents more interesting than the editorial work); and Egidio Gorra's "Lingua e Letteratura spagnuola delle Origini." In Dante literature we have Alfredo Niceforo's "Criminali e Degenerati dell' Inferno Dantesco" (an "attempt to discover anticipations of modern criminological theories in Dante's 'Divina Commedia'"); I. del Lungo's "Dal Secolo e dal Poema di Dante"; "La Divina Commedia di Dante Alighieri, illustrata nei Luoghi e nelle Persone," by Corrado Ricci (the collection of these pictures of persons and places . . . is largely original and photographic"); G. Cavaretta's "Virgilio e Dante. Confronti critica tra l'Eneide e la Divina Commedia"; G. Longo Manganaro's "Bruto e Catone nella Divina Commedia"; and "Scritti" (Vol. I: Studi Danteschi. Vol. II: La Beatrice svelata. Vol. III: Scritti rari), by F. Perez. The Leopardi centenary was celebrated with great enthusiasm. New books dealing with the poet are E. Celani's "Leopardi a Roma"; De Roberti's "Giacomo Leopardi" and Giosué Carducci's "Degli Spiriti e delle Forme nella Poesia di Giacomo Leopardi," two valuable works; Gi. Negri's "Divagazioni Leopardiane" (Vol. IV); L. Perroni Grande's "Giacomo Leopardi a Messina"; N. Vaccalluzzo's "Vittorio Alfieri e il Sentimento patriottico di Giacomo Leopardi"; E. Bogen-Conigliani's "La Donna nella Vita e nelle Opere di Giacomo Leopardi"; and A. Faggi's "Lenau e Leopardi. Studio psicologico-estetico."

Among new novels are noted F. De Roberto's "Spasimo" (shows versatility and power, but not up to his standard) and "Amori" and "Gli Amori," psychological studies; Girolamo Rovetta's "L'Idolo" (excellent characterization); Gabriele d'Annunzio's "Il Fuoco"; Enrico Rieti's "Il Gusto d'amare. Romanzo"; Maddalena Cravenna Brigola's "Le Vittorie di Clotilde. Romanzo sociale"; Mario Pratesi's "Le Perfidie del Caso" (a psychological study of great power); and Luigi Capuana's "La Sfinge" (naturalism; "flabby unwholesomeness"). The list of poetry includes Antonio Fogazzaro's "Poesie scelte"; G. d'Annunzio's "I Sogni delle Stagioni. Sogno d'un Tramonto d'Autunno. Poema tragico" (a sensuous picture, presented with masterly magic of style); "Versi postumi" of Domenico Stromei, the "Italian Hans Sachs"; "Vita" by Luisa Anzoletti (hitherto known chiefly as a profound writer of philosophical and religious books); Angiolo Orvieto's graceful "Poesie" of love and melancholy; Anita Zappa's "Intime Sinfonie"; Chigiato Giovanni's "Rime dolenti"; Gustavo Pittaluga's "Il Canzoniere"; Giuseppe Lipparini's "Lo Specchio delle Rose"; Francesco Matteucci's "Atomi e Raggi, 1892-95"; D. Gnoli's "Vecchie e nuove Odi

tiberine"; and Flora d'Adria's "Versi." Finally, a number of new plays are noted: Gabriele d'Annunzio's "La Ville Morte" (produced by Sarah Bernhardt; unpleasant subject; high poetic qualities; beauties and defects remove it far from the sympathies of the general public); A. Paternò Castello's "La Fine di Livia" (comedy); Dani Gino's "Teresina" (drama); Francesco Pastouchi's "Oltre l'Umana Gioia: Favola in terza Rima"; Celestino Calleri's "I due Caporali reduci dall'Africa"; Dante Bicchì's "Sulla Rotonda" (comedy); Ersilio Bicchì's "Ena" (comedy); and Francesco dall'Ongaro's "Il Fornaretto: Dramma storico."

Norway.—A. Ræder's "Keiser Hadrian" is called the best historical book of the year. Other works in the field are H. T. Aschehoug's excellent one on Norwegian communal affairs; some exhaustive monographs on Trondhjem, published at its nine hundredth anniversary; and C. Hallendorff's "Bidrag till det stora nordiska Krigets Förhistoria." In "Discovery and travel" we have two accounts of the Nansen expedition by members of the same: "Selv-Anden på 86° 14'" (much new material), by Lieut. Hjalmar Johansen, Nansen's sole companion after leaving the "Fram," and a work by the electrician Bernhard Dordahl; Knut Dahl's "Dyr og Vildmænd" (account of author's explorations in South Africa and Australia); and J. Raabe's "trustworthy sketches from Germany, Austria, and Italy." Ethnography is supplied in U. Sverdrup's "Extracts from the History of Iroquois Indians." There are two interesting and scholarly works in philology—Amund B. Larsen's "Oversigt over de norske Bygdemaal" and "Dansk-norsken's Lyd-Historie," by Alf Torp and Hjalmar Falk. Church history is furnished in A. C. Bang's "Den norske Kirkes Geistlighed i Reformationsaarhundredet (1536-1600)"; and theological controversy in O. C. Breda's Unitarian manifesto "Ny Grund" and Axel Andersen's "attack on the recognized theory" of "Nadveren." "Reminiscences from the Life of L. Wolff" (a talented actress) and Dietrichson's "Fra svunden Tid" are noteworthy memoirs. Norwegian literature in various phases is dealt with in Carl Nærup's useful "Skildringer og Stemninger fra den yngre Litteratur"; Arne Løchen's scholarly, exhaustive account of the poet J. S. Welhaven; F. Jónsson's "Den oldnorske og oldislandske Litteraturs Historie" (3 vols., 1893-'97); and J. B. Halvorsen's "Norsk Forfatter-Lexikon" (in course of publication). Axel Arstål's essay "Between the Lines" is "well-planned, but ill-written."

In prose fiction there is nothing of high importance, but a number of works deserve mention: Peter Egge's historical novel "Jomfru Nelly Maartens"; T. P. Krag's lyrical "Ulf Ran" and "Tusmørke"; T. Madsen's sad "Under Kundskebens Træ"; H. S. Sæther's contemplative "Oves Breve"; J. Tvedt's "Hamskifte" (good sketch of peasant life); Ivar Sæter's short story "Ideelle Krav" (psychological); K. Viller's detective story "Karl Monk's Oplevelser"; and P. Rosenkrantz Johnsen's "Dobbelt-Konsulen" (society novel). Johan Bojer's "Paa Kirkevei" (fairy tales) and the charming stories for small boys by Hans Aanrud and Bernt Lie were highly appreciated. Poetry to be mentioned is contained in Vilhelm Krag's volume of pretty poems, and J. H. Bull's very popular patriotic songs. M. J. Monrad's "Efterladte Digte" have appeared. In dramatic literature there are noted, as of distinct merit and individuality, Jonas Lie's masterly fairy play "Lindelin" (his first dramatic success); K. Hamsun's "Aftenrøde" (marked, like the two first parts of the trilogy, by "biting censure on feminine love-making"); Peter Egge's touching little play "Godfather's Gift" (a "Dickens-like portrayal of

back-street life"; great success); and "Johanne," a three-act play with which Björn Björnson (son of Björnsterne) made his *début* (interesting; not very original)—all four very successful; and Sigbjörn Obstfelder's "Drops of Red" and Hans Kinck's restless drama "Between the Processions" (a "cutting attack on the new woman in her professed dislike to the male sex"), both somewhat puzzling in their eccentric and entire variation from traditional dramatic effects, but showing true artistic instinct as well as blind ardor.

Poland.—Various phases of Polish history are illustrated in Sulima's "History of the Year 1863" (the Polish insurrection); "Memoirs of the Years 1822-1883," by Z. Felinski, former Archbishop of Warsaw; K. Potkanski's "Cracow before the Pils" (a "cutting attack on the new woman in her professed dislike to the male sex"); F. Koneczny's "History of Silesia"; A. Karbowski's "History of Education and School Life in Poland"; and K. Pulaski's "Historical Sketches and Researches." Much literary history has seen the light, notably: H. Biegeleisen's "Illustrated History of Polish Literature" (Vol. I); P. Chmielewski's "Our dramatic Literature" (especially of the nineteenth century); M. Zdzichowski's "Byron and his Age" (deals with his influence on the Slavonic world); I. Matuszewski's "Our Men and the Foreigners" ("literary and æsthetic studies"); J. Kallenbach's psychological and æsthetic study of the works of "Adam Mickiewicz" (whose centenary was celebrated with great enthusiasm, occasioning the publication of numerous books, music, and pictures); and biographies of "Jan Kochanowski," a poet of the sixteenth century, by R. Pleniewicz (sympathetic; thorough), and of H. Kajsiewicz and H. Sienkiewicz, by S. Tarnowski. J. Kotarbinski portrays "Unhealthy Love" in literature and life "with artistic moderation and great knowledge of the subject."

The list of novels and short stories includes "The Way to Luck" (rather sketchy), by T. T. Jez (called the Nestor of Polish novelists); K. P. Tetmajer's "The Angel of Death" (historical novel; light, humorous); A. Krechowicki's "Rust"; M. Jasienczyk's "In Wielgie" (realism; artistic power); "A False Partridge," by the late Klemens Junosza; K. Laskowski's "Kulturträger"; A. Gruszecki's "Rugiwójscy" (satirical); M. Pawlikowski's "Bacz-maha" (philosophical; fatalism; keen observation); A. Dygasinski's "Village Dramas," "The Broken Life," and "Life's Misery" (effective pictures of the lower classes); Fr. Rawita's "Zdomu niewoli"; a group of works by women—Mme. E. Orzeszko's "The Sparks"; three collections of stories by M. Konopnicka ("deep psychological truth; highly artistic method"); Deotyma's "Lady of the Window" ("on unusual lines, yet a success"); Mme. G. Zapolska's "The Leader of the Dance"; "The Jewel," by Mme. M. Rodziewicz (exaggerated idealism)—and two successful *débuts*, that of W. Sieroszewski (Sirko), with five tales of Siberian life, and that of J. Weyssenhoff, with his satirical "The Life and Thoughts of Sigismund Podfilipski." In poetry, Vol. III of K. Przerwa-Tetmajer's "Poems" holds first rank. The dramatic successes of the year were "Malka Schwarzenkopf" (a drama of Jewish life) and "He," by Mme. G. Zapolska. Other plays to be noted are K. Glinski's tragedy "Almansor" (has fine episodes, but "lacks psychological motive"); K. Zalewski's drama "The Chains" (delicate problem of the repentant Magdalene not successfully solved); "The Deceit," by M. Szukiewicz; and M. Dzieduszycki's "The Mammoths." The "Dramas and Comedies" of Adam Belcikowski (five volumes) show poetical inspiration and powerful character drawing. An American critic notes the fact that "a renaissance of letters and of the national spirit has been in progress for the last quarter of a century in the

dislocated members of the quondam Polish kingdom, which gives fair promise soon to rival, if not to surpass, its golden age in the sixteenth century."

Portugal.—The quadricentenary of the discovery of the water way to India occasioned the important "Religiões da Lusitania na Parte que principalmente se refere a Portugal" (1897), by J. Leite de Vasconcellos, and "Chronica dos Reis de Bisnaga. Manuscrito inedito do Seculo XVI" (1897) and "Textos em Aljama portuguesa. Documentos para a Historia do Dominio português em Safim, extrahidos dos Originaes da Torre do Tombo" (1897), both interesting, edited by the Orientalist David Lopes. Other new books are Rocha Peixoto's "A Terra portugueza (Chronicas scientificas)" (1897; articles published in the periodical "Primeiro do Janeiro"); Martinho Brederode's "O Pó da Estrada" (1898); and "P. de Andrade Caminha. Poesias ineditas, publicadas por J. Priebisch" (Halle, 1898)—Caminha was one of the classic lyrists of the sixteenth century in Portugal. "O Instituto. Revista scientifica y literaria" is published monthly at Coimbra.

Russia.—Historical works to be noted are Venetinov's "The Russians in Holland: The Great Embassy, 1697-8," compiled from Russian and Dutch sources; V. Aleksandrenko's "Russian Diplomatic Agents in London in the Eighteenth Century"; E. Karnovich's "Russian Officials in Past and Present Times" ("incomplete but interesting"); and A. Volinski's essays on the Italian Renaissance, published in the "Northern Messenger." H. Hulevich's timely "War and National Economy" is not entirely trustworthy, yet deserves the attention of every lover of peace. S. Vengerof has issued Vol. V of the important "Critico-Biographical Dictionary of Russian Writers and Scholars" and Vol. I of "Russian Poetry" (a sort of anthology, with important biographical and critical notes). Leo Tolstoi's "What is Art?" takes a utilitarian standpoint; "the purpose of Christian art is to realize the brotherly union of man." Criticism varies from the statement that it is one of his "most searching and enlightened works of criticism" to its characterization as "at times infantile, showing his weakness as a thinker."

In *belles-lettres*, too, not much is worthy of attention: A. Chekhov's "Tales" (including "Among Peasants," delineating village life, and "My Life," depicting provincial life, showing the author's usual skill, observation, and realism); "The Mirrors" (stories and poems), by Zenaida Gippius, who affects elegance and symbolism, and has not altogether redeemed the promise of her "New People," and "Shadows" (stories and poetry), by Th. Sologub, who shows similar delicate qualities; Vol. II of Mme. Myrrha Lokhvitskaya's poems (conspicuously melodious verse, devoted almost exclusively to the subjects love and death); and the story "Malva" (published in the "Northern Messenger"), by M. Gorski, a new writer, sprung from the people. A third edition of H. Zlatovratski's works and a second edition of "Poems of the Years 1878-87" (full of a peculiarly Russian, melancholy tenderness), by the able though little known S. Andreevski, have been issued. The last-named volume includes translations of poems by E. A. Poe, who has many admirers here. In fact, the recent translation of Ibsen and retranslation of Byron, Shelley, Tennyson, and Burns serve to show that foreign poets, especially English, German, and Scandinavian, are popular in Russia. Some critics build high hopes on the influence which the study of such models may have on Russian literature. For it continues to be impressed on us that literature in this country is in a condition of decay and stagnation; the little talent that does exist is not vigorous enough to bring life into this

barrenness. Besides, literary development, we are told, is hampered by criticism, which is guided by principles really foreign to its field, judging writers by their relation to social questions instead of by æsthetic laws.

Spain.—The inferiority of Spanish historians is due not to lack of research, says a Spanish writer, but to "poverty in the development of their subject, and limitation in their points of view," producing bare narrative and unimportant erudite detail. "The Spanish historical school appears indifferent to ideas, and in most cases is quite unaffected by any national feeling of a reasoned character as distinguished from superficial and vulgar chauvinism." Noteworthy historical publications are Julian Ribera's "Los Orígenes del Justicia de Aragón" (an obscure and debated point; author finds the "origins" in Mohammedan institutions); Danvila's valuable and useful "Historia crítica y documentada de las Comunidades de Castilla"; "Relaciones geográficas de Indias" (four volumes, 1881, '85, '97), edited by S. Jiménez de la Espada (important; reports by navigators and officials in America during the period of discovery); Bethencourt's "Historia general y heráldica de la Monarquía Española"; Uhaegon's excellent "Ordenes militares"; G. Fournier's "Ensayo de Geografía histórica de España," Vol. II, incomplete; "Lusitania Celtibérica," by Arenas López (endeavors to prove existence of this district); Murguía's biography of "D. Diego Gelmirez"; Villalba's "Ruiz de Padrón y su Tiempo," and "Aventuras y Desventuras de un Soldado viejo," by Gen. Nogues, both illustrating political history in this century; Rafael Altamira y Crevea's "De Historia y Arte" (critical studies; "solid erudition"); and Guichot's "Historia del Ayuntamiento de Sevilla" (diligent investigation). Font's "Determinació de les Comarques naturals é historics de Catalunya" (in "Joch floral" for 1897) expresses the local feeling in Catalonia—"the one current of sentiment sufficiently remarkable to be noted"—as do also Carreras y Candi's "Hegemonia de Barcelona en Cataluña durante el Siglo XV"; and A. Bori y Fontestà's "Historia de Catalunya." The Basques, too, are giving increased attention to the history of their country; their "Biblioteca Bascongada" includes "Los Isunzas de Vitoria," by Apraiz, Arturo Campión's "Euskariana. 2ª Serie: Fantasia y Realidad," Olascoaga's "El Arbol de Guernica," "Fueros, Privilegios, Franquezas y Libertades del Señorío de Vizcaya." Mario Arozena's "La Derrota de Horacio Nelson (25 de Julio de 1797)" recalls the literary movement in the Canaries. Interesting in the light of recent events are José Muller y Tejeiro's "Combates y Capitulación de Santiago de Cuba"; R. Cappa's "Estudios críticos acerca de la Dominación española en América" (Vol. XXVI); Jesuit Francisco Foradada's "La Soberanía de España en Filipinas"; and M. Sastrón's "La Insurrección en Filipinas." Archaeological works worth noting: El Monasterio de San Pablo de Valladolid by Paz, and Tarín's "La Real Cartuja de Miraflores" and "La Cartuja de Porta Celi." Dilettanteism produces many useless publications in this field. Ecclesiastical history: Font's "Episcopologi Ampuritá"; Garay's interesting "El Comunismo de las Misiones de la Compañía de Jesús en el Paraguay"; and Lorenzo Moret y Remisa's "Del Cristianismo en España como Elemento de la Nacionalidad," a tribute to Catholicism. A. M. Fabié's "Ensayo histórico de la Legislación española en sus Estados de Ultramar" fills "a conspicuous gap." The Conde de Cedillo and Sanchez Ocaña write on "Contribuciones de León y Castilla en la Edad Media" (not exhaustive). Sociology attracts few; only Sales y Ferrés "Tratado de Sociología" is noted. Calabrig writes of "La Casa enseñanza" of Valencia.

Giner de los Ríos and Calderon present an important "Filosofía del Derecho." Pedro Dorado studies "El Reformatorio de Elmira." Ganiivet's "La Conquista del Reino de Maya por el último Conquistador español Pío Cid," and "Idearium español" are "a species of philosophy of the history of Spain and an ideal programme of our political future," expressing "the feeling prevailing among our thoughtful young men." Sanz y Escartín's "Federico Nietzsche y el Anarquismo intelectual" is not profound, but good. Art literature: Barón de Alcahali's "Diccionario de Artistas Valencianos"; Leguina's curious "Maestros Espaderos"; and F. Pedrell's "Diccionario biográfico y bibliográfico de Músicos y Escritores de Música españoles, portugueses é hispano-americanos. . . ." Literary criticism: Fernandez Guerra's introduction (edited by Menéndez y Pelayo) to the "Obras completas de Don Francisco de Quevedo y Villegas," issued by the Society of Bibliófilos Andaluces; monographs by Cotarelo on Yriarte, Lomba on P. Arolas (sound judgment; great erudition), and Catalina y Garcia on Fr. José de Sigüenza; M. Aramburo y Machado's "Personalidad literaria de Doña Gertrudis Gómez de Avellaneda"; and O'Callaghan's "Códices de la Catedral de Tortosa." Linguistic studies are "Gramática del Poema del Cid," by Araujo Gómez; "Apuntes gramaticales sobre el Romance gallego de la Crónica Troyana," by Rodríguez; Mugica's "Maraña del Diccionario de la Academia"; and Ximenez de Embun's "La Lengua española en el Siglo de Oro de su Literatura." Gener's "Amigos y Maestros" and "Ixart," by Sardá and Musté, are "critical works."

While there is an increase in historical works, the total number of books published is less, especially in *belles-lettres*. The most notable novel is "El Abuelo" (a "modern King Lear," a "semi-dramatic novel"), by B. Pérez Galdós, who has begun a third series of "Episodios nacionales" with "Zumalacárregui" (interesting; one of his best). Other prose fiction includes Juan Valera's "Á vueta Pluma" and "De varios Colores" (stories and sketches; not very important); Emilia Pardo Bazán's "El Tesoro de Gastón," "El Saludo de las Brujas," and "Cuentos de Amor"; Arturo Campión's "Blancos y Negros (Guerra en la Paz)" ("sober and vigorous realism"); Juan Ochoa's "Un Alma de Dios" (graceful); Pascual Queral's didactic "La Ley del Embudo, a political satire against *caciquismo* (bossism); "El Hagar de la Viñuela," by Arturo Reyes (picture of Andalusian customs). "In general, there is observed in the new novelists . . . a better unfolding of the descriptive faculties than of the art of composition." Poetical works listed are Eusebio Blasco's "Corazonadas"; Herrero's "Poetas del Amor" (translations from Kalidasa and Heine); Vaamonde's "Dialogos"; Gil's "La Caja de Música"; "Pasaxeiras. Colección de Poesías gallegas," by Jesús Rodríguez López, (well written; knowledge of native land); and "Poesía" ("Biblioteca Bascongada") by Juan Arzadun, (noteworthy, despite defects). There is little new dramatic literature: Guimera's "Tierra baja"; the late Feliu y Codina's "Lo Nuvi"; Echegaray's "La Duda" (failure); and a translation and arrangement of "Antony and Cleopatra," produced by Selles. A writer in "España moderna" deplores the decadence which "touches the limits of inanity." Only that which is considered useful is read, and the preponderating "industrial literature" includes schoolbooks, devotional literature, and one-act farces! Examples of these one-act *zarzuelas* (written in the language of the *chulos*, with its vulgar jokes and *double-entendres*) are "La Revoltosa," by Fernández Shaw and López Silva; F. Shaw's "Los Hijos del Batallón"; "La

Guardia Amarilla," by Lucio y Arniches; and Romea's "El Señor Joaquín." Attention is called to the "purely literary regionalism," the cultivation of the regional dialects or languages and literatures, of which this and former reports have given some inkling. Some books by Catalonians are noted (their poets "are no doubt superior to those of the rest of Spain," says an enthusiast): Morera's "Poesías"; "Alades," by Guanyabens; Verdager's "Santa Eulalia"; "Oracions" ("hymns in prose"); "Impresiones de Arte," and "L'Alegria que passa: Quadro líric en un Acte," by Santiago Rusiñol; "Prosa," by Enrique de Fuentes (a "newly arrived"; naturalism); "Natura: Poesías," by J. Massó y Torrents (a true artist); "Narciso Oller's "El Escanyaña-Pobres: Versión castellana de R. Altamira"; "Escritos de José Soler y Miquel"; Adrian Gual's drama "Silenci" (promise rather than achievement); and "Lo Nuvi," drama by Feliú y Codina (important). The "modern" Catalonians, who are giving most life to the literature of Barcelona, have their review—"Catalonia: Revista literaria" (interesting and fine).

Sweden.—As shown in 1897, the twenty-fifth anniversary of King Oscar Fredrik II (whose "Vers og Prosa, 1872-97" has appeared) naturally occasioned the publication of new works on his reign; F. U. Wrangel's "Redögörelse för Konung Oscar II.'s 25 Årige Regeringsjubileum" being added this year. There has been a remarkable revival of national feeling in all departments of literature. Important historical works have seen the light: H. Hildebrand's scholarly, comprehensive description of mediæval Sweden; the correspondence between Järta and Wirsén in 1814, edited by O. Alin (remarkable; throws much light on the union between Sweden and Norway); and a new, revised edition of Carl Gustaf Malmström's exhaustive and erudite "Sveriges politiska Historia från Konung Karl XII.'s Död till Statsomhävningen, 1772." Other works noted are "Historiska Studier. Festskrift tillägnad C. G. Malmström, den 2. November 1897"; S. Jacobsen's "Den Nordiske Kriigs Krönikke utgivet af M. Weibull"; A. E. Norden-sköld's "Periplus. Utkast till Sjökortens och Sjöböckernas Äldsta Historia"; and W. Coucheron Aamot's "Kriget mellan Japan och Kinä jämte kortfattad Skildring af Östra Asiens Historia." H. Berg offers "Skizzer från en Studieresa i Tyskland, Belgien och Danmark." E. Wrangel's "Sveriges litterära Förbindelser med Holland särdeles under 1600-talet," H. A. Ring's "Teaterns Historia från äldsta till nyaste Tid," and N. Erdmann's "Molière" are new productions in literary criticism.

The national movement referred to seems to have incited a revival of the historical romance, as witness Elof Tegner's "Svenska Bilder från Sexton Hundratalet" (masterly pictures of domestic life of Swedish magnates); Oscar Levérin's "Gustaf III.'s Dagår" (elegant, charming sketches; combination of learning and fancy); H. Molander's "En Lyckoriddare" (introducing Lars Wiwallius, a Swedish poet and adventurer of the seventeenth century); and Verner von Heidenstam's "Karolinerna" ("a masterpiece"; picturesque; portrait of Charles XII historically untrue). Further titles in the list of prose fiction are Gustaf af Geijerstam's "Det yttersta Skäret" (fresh picture of life of Swedish fisherfolk); Per Hallström's "Vären. En Roman från 1890—Talet" and a new collection of stories; Selma Lagerlöf's "Antekrists Mirakler" (a *chef-d'œuvre*, "absolutely Sicilian in tone and expression"); Hilma Angerød-Strandberg's "Den nya Världen" (gloomy picture of sufferings of emigrants to America), and "På Prärien"; and A. Strindberg's "Inferno" and "Legendär" ("diaries of a sick soul," marking the last stage of a long-foreseen decadence). Note-

worthy poetry is found in C. D. af Wirsén's "Under Furur och Cypresser" (a triumph of idealistic principles); "Dikter. Femte Samlingen," by Carl Snoilsky, who shows "a transparent lucidity of form and a true Swedish virility"; and "Nytt och Gammalt" ("passionate, melodious defiance against sour hypocrisy") and "Flicker och Stänker" (erotics), by Gustaf Fröding, a "philosophizing vagabond prattler" and "Sweden's most popular poet."

Switzerland.—Purely literary works, as usual, are entered under Germany and France. To the historical works noted in 1893 and 1895 are added: "Bibliographie der schweizerischen Landeskunde. Hrg. von der Centralkommission für schweizerische Landeskunde"; "Katalog der Handschriften zur Schweizergeschichte der Stadtbibliothek Bern" (1896); "Urkundenbuch der Stadt und Landschaft Zürich. Bearb. von J. Escher und P. Schweizer" (Vol. IV, 1896); "Urkundenbuch der Stadt Basel" (Vol. III, 1897); "Basler Chroniken. Hrg. von der historischen und antiquarischen Gesellschaft in Basel" (Vol. V, 1895); "Collectanea Friburgensia. Commentationes academice universitatis Friburgensis Helvetiorum"; D. Schilling's "Die Berner Chronik 1468-84. Im Auftrage des historischen Vereins des Kantons Bern hrg. von G. Tobler" (Vol. I, 1898); Ant. Karl Fischer's "Die Hunnen im schweizerischen Erschthale und ihre Nachkommen bis auf die heutige Zeit" (1896; unsuccessful attempt to prove that the worthy Erschthaler are true descendants of the Huns and Magyars); and G. Wunderli's "Huldrych Zwingli und die Reformation in Zürich" (1897).

LITERATURE, LATIN-AMERICAN, IN 1898. This record is again, of necessity, fragmentary, and can simply give a hint of the literary activity of our Spanish- and Portuguese-speaking American brethren. Besides local periodicals, the Spanish "Revista critica de Historia y Literatura españolas, portuguesas é hispano-americanas," gives interesting and useful information in this field.

Argentine Republic.—Eudoro y Gabriel Carrasco's "Anales de la Ciudad del Rosario de Santa Fé, con Datos generales sobre Historia Argentina 1527-1865"; Lucio V. Mansilla's "Rozas: Ensayo histórico-psicológico" (Paris, 1898; interesting account of the dictator); Juan Silvano Godoy's "Mi Misión al Rio de Janeiro"; Francisco P. Moreno's "Reconocimiento de la Región andina de la República Argentina"; Paul Groussac's "Del Plata al Niágara" (intelligent impressions of North and South American affairs; "Señor Groussac—not a frequent matter in the Spanish-American republics—writes a limpid style, without the Gallicisms which so deface the works of others"); "Los Querandies. Breve Contribución al Estudio de la Etnografía argentina," by Félix E. Oates; Samuel A. Lafone Quevedo's "Lenguas argentinas. Idioma abipón"; S. Gesell's "Die Anpassung des Geldes und seiner Verwaltung an die Bedürfnisse des modernen Verkehrs"; "Joyas poéticas americanas, Colección de Poesías escogidas, originales de Autores nacidos en América, Selección hecha por Carlos Romagosa" (interesting but poorly arranged; trilingual, covering North America, Brazil, and Spanish America).

Brazil.—The "Revista do Archivo Publico Mineiro" constitutes a valuable repository for the history of Minas Geraes. José Verissimo, a Brazilian critic, writing of José Pedro Xavier da Veiga's "Ephemerides Mineiras (1664-1897)," says: "The existence in our scanty historical literature of so many collections of ephemerides seems to prove our predilection for this process of studying and writing history. He mentions also Teixeira de Mello's "Ephemerides nomenclæ," Barão do Rio Branco's "Ephemerides brasileiras," and Garcez

Palha's "Ephemerides navaes," and points out the valuelessness and dryness of history studied by dates alone. Scientific research is exemplified in "Palma Mattogrossense novæ vel mirus cognita," by J. Barbosa Rodrigues; the "Revista" of the Academia Cearense; the "Boletim" (interesting and useful) of the Comissão geographica e geologica de S. Paulo; and the "Revista do Museu Paulista." Alfredo de Carvalho has published "A imprensa pernambucana (1706-1898)." A well-made "Catalogo alphabetico" of the "Bibliotheca do Senado Federal da Republica dos Estados Unidos do Brazil" has been issued. José Fialho Dutra's "Apontamentos sobre Composição portugueza" (grammar and rhetoric; an accurate and intelligent study). "Theatro Brasileiro Martins Penna (comedias) com um Estudo critico sobre o Theatro no Rio de Janeiro o sobre o Autor por Mello Moraes Filho e Sylvio Romero" is a new edition of Penna's comedies. Filho's notice of the Brazilian drama is inadequate.

Chile.—J. J. Medina offers a "Bibliografía española de las Islas Filipinas (1523-1810)" and Vol. XVI of "Colección de Documentos inéditos para la Historia de Chile." Much interesting material is published in the "Anales de la Universidad."

Guatemala.—Ramon A. Salazar's "Historia del Desenvolvimiento intelectual de Guatemala" (good style, erudition, sound criticism; among the best produced in this country).

Mexico.—F. Ramos y Duarte's "Critica del Lenguaje usado por Escritores, Publicistas y Oradores del País"; "Biblioteca de Autores Mexicanos"—Vol. XI ("Obras del Lic. D. J. López Portillo y Rojas," Vol. I) and Vol. XII ("Obras de D. J. García Icazbalceta," Vol. VI).

Peru.—J. Capelo's "La Via central del Perú" and R. P. F. Gabriel Sala's "La Montaña central del Perú. Apuntes de Viaje."

Uruguay.—D. Granada's "Reseña histórico-descriptiva de antiguas y modernas Supersticiones del Rio de la Plata."

Venezuela.—Julio Calcaño's "El Castellano en Venezuela. Estudio critico" and Alberto Membrillo's "Hondufferismos. Vocabulario de los Provincialismos de Honduras" (second edition, 1897) are interesting contributions to the literature of provincialisms.

LOUISIANA, a Southern State, admitted to the Union April 30, 1812; area, 48,720 square miles. The population, according to each decennial census since admission, was 152,923 in 1820; 215,739 in 1830; 352,411 in 1840; 517,726 in 1850; 708,002 in 1860; 726,915 in 1870; 939,946 in 1880; and 1,118,587 in 1890. Capitol, Baton Rouge.

Government.—The following were the State officers in 1898: Governor, Murphy J. Foster; Lieutenant-Governor, Robert H. Snyder; Secretary of State, John T. Michel; Treasurer, Alexander V. Fournet; Auditor, W. W. Heard; Attorney-General, M. J. Cunningham; Superintendent of Education, Joseph V. Calhoun; Adjutant General, Allen Jumel; Commissioner of Agriculture and Immigration, Jordan G. Lee; Commissioner of Insurance, J. J. McCann; Railroad Commission (organized in December), C. L. DeFuentes, R. N. Sims, and W. L. Foster, with C. J. O'Shaughnessy as secretary; Bank Examiner, Fred. G. Freret (appointed in December); Chief Justice of the Supreme Court, Francis T. Nicholls; Associate Justices, Newton C. Blanchard, Lynn B. Watkins, Joseph A. Breaux, and Henry C. Miller; Clerk, T. McC. Hyman. All are Democrats.

Finances.—From reports of the Auditor and the Treasurer, rendered to the Legislature in May, it is learned that assessments steadily increased from 1890 to 1897. In 1890 the total assessments for the State amounted to \$284,350,791.60; in 1897 they

amounted to \$259,798,212.75. The report shows an increase of more than \$7,000,000 in the assessment of 1897 over that of 1896. This increase in the valuation of property is confined almost entirely to the country.

Among the unusual drafts made upon the treasury were: For the constitutional convention, \$80,000; for drought sufferers, \$88,600; for closing the crevasse in the Pontchartrain levee district, \$3,475.

The estimated amount available for appropriations, out of the general fund of 1898 from the 1-mill tax, licenses, the penitentiary lease, and other sources, was \$768,000.

The Legislature of 1896 appropriated \$329,060.83 for the first six months of 1898, leaving for the remaining part of the year \$438,939.17.

Within the biennial period the Board of Liquidation retired \$206,700 4-per-cent. bonds at a cost of \$199,825.73. The total amount of indebtedness retired by the State since 1892 is as follows: Four-per-cent. bonds, \$918,700, costing \$890,557.30; warrants, \$315,555.26, at a cost of \$189,333.13; coupons 1 to 11, \$343,539.28, costing \$158,566.45; baby bonds, \$363,210, costing \$150,450.71, making a total retired indebtedness of \$1,941,054.54, at a cost of \$1,388,907.59.

Of the direct tax fund of \$314,500.84 returned to the State, the sum remaining after all claims were settled was \$73,749.64, of which \$73,600 was given to the drought sufferers.

Education.—Since the establishment of the State Normal College at Natchitoches in 1885, the number of its students has increased from 59 to 441, and of this number 317 are in the normal department proper. It has graduated 235 students, most of whom are now teachers in the schools of the State. The graduating class of 1896 numbered 31, and that of 1898 had 55 members. The monthly cost to the State for each student is \$4.60. The buildings have been improved through an appropriation by the Legislature of 1896.

The State University at Baton Rouge has had a successful session; the enrollment for the spring term was 249, and at the previous session 220, notwithstanding the fact that the sub-freshmen course has been eliminated.

The Audubon Sugar School has been transferred to the college. Both colonels and many of the commissioned officers of the two volunteer regiments recently mustered into the service of the United States from Louisiana are representatives of this institution.

The State Industrial College at Ruston was organized in 1896, and began with 202 students; the number has risen to 300. Its curriculum includes the industrial arts and sciences.

The Southern University, the State institution for colored students, has had an attendance rising during the two years from 368 to 443. The State has paid a little less than half the cost of its maintenance, the National Government the remainder.

The enrollment in the public schools for 1897 showed an increase over that for 1896 of 11,324; and the total increase from 1890 was 65,022. The number of schools in 1897 was 3,055, and the number of teachers 3,854.

Charities and Corrections.—The enrollment at the Institute for the Deaf and Dumb at the last report in May, was 106, with an average of 93.

The Institute for the Blind had 55 pupils. A new building has been erected for the boys at a cost of \$11,000. Music is taught, besides various industries; the manufacture of brooms is mentioned as the most profitable.

The number of inmates of the Confederate Soldiers' Home has increased 50 per cent.; there are now 138. The constitution recognizes the Home as

a State institution, and provides that it shall be maintained by the State by an annual appropriation, which is to be based upon the number of inmates sheltered in the Home on the first day of April of the year in which the appropriation is made, of \$130 per capita, to be used for maintenance and clothing.

At the Lepers' Home, established in 1892 on a leased tract of 200 acres known as Indian Camp Plantation, in Iberville Parish, 21 males and 14 females have been cared for; of these, 1 escaped and 10 have died.

The Insane Asylum at Jackson provides for 1,400 inmates. Improvements have been made in the heating and cooking facilities. An ice plant with capacity of two tons daily, and two cold-storage rooms have been erected. An additional story has been built on both the male and female colored departments, and a new building, 152 feet long by 34 feet in width, has been completed at a cost of \$38,500.

Since the buildings of the Charity Hospital at New Orleans were erected in 1832 there have been 507,197 admissions, 424,521 discharges, and 79,240 deaths. There were during the year 8,149 bed patients, with a daily average of 680, and the attendance in the outdoor clinics was 20,895 patients. There were 1,050 deaths in the year, or a death rate of 12 per cent. This does not include those at the isolation hospital, where 216 patients were treated. New buildings and equipments have been added from time to time. Ground was broken in the spring for a children's hospital, for which Mrs. Richard Milliken gave \$75,000.

The Charity Hospital at Shreveport is shown by the report to have had an average monthly increase of patients of 63, and a total of 6,631 patients received in the hospital, with 213 deaths for the two years past.

A very modern four-room brick aseptic-operation building has been erected and furnished with the most improved equipments.

There were more than 1,100 convicts in the penitentiary at the time of report. Of these an average slightly above 50 are kept within the walls. The average number carried upon the books of the prison is from 1,050 to 1,150. The system of reduced time service for good behavior has worked well, 301 prisoners having been released in the two years under its provisions.

Militia.—The total number enlisted in the National Guard increased from 1,170 in 1891 to 3,048 in 1897. The number given in April, 1898, was 2,607, exclusive of the naval militia. The quota called for in April by the Government was 1,940. The Adjutant General, in his report, says: "The annual appropriation made by the last general assembly of \$15,000 for military purposes and \$6,000 for militia in the field has met very satisfactorily the wants of the State National Guard under the present strength."

Naval Dry Dock.—Steps have been taken toward the construction of a dry dock at Algiers, in front of the naval reservation on the Mississippi. By act of Congress the limit of the cost of the entire work is \$850,000.

Public Works.—Reports of the Board of Control and superintendent of the new basin canal and shell-road show that the canal has been dredged, the shell-road rebuilt, new buildings have been erected, and old ones improved.

The work on the levees amounted to 15,541,188 cubic yards in 1896-'98, and the cost was \$2,115,341.90, of which the districts paid \$1,001,785.75, the State \$297,396.77, and the United States \$816,159.38. From 1892 to 1898 \$8,909,199.53 has been expended upon them.

State Lands.—Under a legislative act of 1896, disabled Confederate veterans or their widows were to receive, under certain conditions, each a quarter section of State land; 230 patents covering 34,761 acres have been issued.

Agriculture and Immigration.—These departments are under one commissioner appointed by the Governor. According to his report, 10,000 immigrants came into the State in 1896-'98, and 250,000 acres of land were sold at a cost of more than \$1,000,000. Farmers' institutes are held under the charge of the department. The reports give details regarding truck gardening and its development. Embracing territory about New Orleans, Shreveport, Alexandria, Monroe, Lake Charles, Hammond, Wilson, and other territory adjacent to the Illinois Central Railroad, the Yazoo and Mississippi Valley Railroad, the Houston, Central Arkansas and Northern, and the Kansas City, Pittsburg and Gulf Railroads, about 5,000 additional acres have been put into truck this year. In 1897, from Ponchatoula, Hammond, Independence, and Amite City there was shipped \$380,000 worth of truck, while for 1898, up to May, \$475,000 worth of products were shipped, showing an increase for 1898 of \$95,000. The report also shows an increased acreage devoted to grain, hay, and forage crops, and to pasturage; a more universal practice of raising adequate supplies of meat and feedstuffs, a marked disposition to raise a better class of farm animals, and a more general use of improved agricultural implements.

The cotton, sugar, and rice crops were all unusually large. The cotton crop is given as 740,000 bales. The number of bales handled at the wharves of New Orleans was 2,815,599. Of wheat, 16,908,207 bushels were moved, and of corn, 23,109,296 bushels.

Relief for Sufferers from Drought.—The sufferers from the drought that prevailed in 13 parishes for more than six months, beginning at the middle of April, 1896, have been relieved by the State and contributions from railroads and other corporations and private subscription, without aid from other States. The commercial fund distributed amounted to \$216,331.47, and the State fund to \$96,618.92.

Quarantine Regulations.—It is alleged that the State has suffered from severe and unnecessary quarantine regulations. The Governor of Texas has issued proclamations for two successive years closing the railroads entering that State from Louisiana and Mississippi. The quarantine was raised Nov. 1.

A new State Board of Health was appointed in January, with Dr. Edmond Souchon as president.

Mob Violence.—A negro who had confessed to an assault on a woman, whom he had left for dead, was burned to death at Doyline, about 18 miles from Shreveport, in June.

Another lynching took place Dec. 6, when two negroes, accused of the murder of Larry Vance, in Bossier, were tried and condemned by a committee of citizens and were hanged immediately. One had confessed the crime and implicated the other, who maintained his innocence to the last.

The New Constitution.—The constitutional convention met Feb. 8 and framed a new Constitution, which was adopted May 12, and went into effect without being submitted to a vote of the people. The Governor said in his message that the necessity for adjustment of the suffrage, the demand for additional and more generous provision for public education, and the importance of the reorganization of the judiciary system were mainly responsible for the calling of the convention, and the more important changes were in these departments.

The qualifications for suffrage as provided are:

Ability to read and write in English or in the elector's native language; or the ownership of property assessed at \$300 or more. But no citizen who was a voter on Jan. 1, 1867, or at any date prior thereto under the Constitution or statutes of any State of the United States wherein he then resided, nor his son, nor his grandson, nor any naturalized citizen naturalized prior to Jan. 1, 1898, who has been a resident of the State for five years, can be deprived of his right to vote by reason of his failure to possess the educational or property qualification prescribed. The privilege of registration by those taking advantage of this provision expired Sept. 1, 1898. It is also required that the voter shall have paid his poll tax for two years prior to the election.

By the provisions of the Constitution of 1879, actual residence in the State for only one year, six months in the parish, and thirty days in the ward or precinct, prior to election, was required. Under the new Constitution these terms are extended to two years in the State, one year in the parish, and six months in the precinct. Under the former Constitution any unnaturalized foreigner, male, and twenty-one years of age, after a year's residence in the State could vote on a mere declaration that he intended to become a citizen of the United States. Under the new Constitution no man of foreign birth is admitted to suffrage until he has become a naturalized citizen of the United States. Separate registration lists are to be kept for whites and blacks.

Woman taxpayers may vote without registration on questions submitted to taxpayers as such. None but registered voters may vote in any primary or convention. The Legislature shall make laws for registration and to secure fairness in primaries and conventions, and for secret official ballots. Parochial (county) elections must be held on the same day as general elections, except in New Orleans. Of the suffrage provisions the Governor said: "The white supremacy for which we have so long struggled at the cost of so much precious blood and treasure is now crystallized into the Constitution as a fundamental part and parcel of that organic instrument, and that, too, by no subterfuge or evasions. With this great principle thus firmly imbedded in the Constitution and honestly enforced, there need be no longer any fear as to the honesty and purity of our future elections."

The old Constitution fixed the appropriations for public schools. The present one gives them 1½ mills out of the general levy of 6 mills, which can be increased by the General Assembly, but not diminished. The interest on the school fund, the seminary fund, and the Agricultural and Mechanical College fund, in all between \$60,000 and \$70,000 annually, instead of being paid, as formerly, out of the general school fund, is to be paid out of the interest tax fund, thus increasing by so much the amount available for the common schools. There is also provided, under certain limitations, a tax not exceeding 3 per cent. upon all inheritances, legacies, and donations above \$10,000 in amount or value, the proceeds of which shall be likewise devoted to the public school fund. The poll tax is appropriated to the same fund. There are to be separate schools for whites and blacks; the law permitting women to hold school offices is repealed. In New Orleans pupils whose parents are unable to furnish them with text-books are to be supplied with them from the public fund. The limit of taxation is 6 mills; but "for giving additional support to public schools and for the purpose of erecting and constructing public schoolhouses, any parish, municipal corporation, ward, or school district may levy a special tax in excess of this, whenever the rate of such increase and the number of years it is to be

levied, and the purpose or purposes for which the tax is intended shall have been submitted to a vote of the local property taxpayers, and a majority of the same in numbers, and in value, voting at such election, shall have voted therefor."

The provisions for taxation include the creation of a State Board of Appraisers to assess property employed in railway, telegraph, telephone, sleeping car, and express business. Railroads completed prior to 1904 are exempt from taxation for ten years from date of completion. Property employed in mining is exempt for ten years from Jan. 1, 1900. The Legislature may levy a tax on inheritances, not to exceed 3 per cent. on direct or 10 per cent. on collateral inheritances; but no such tax shall apply to property which prior to the time of inheritance has "borne its just proportion of taxes." Parishes, municipalities, etc., may, on vote of taxpayers, levy special taxes not to exceed 5 mills, and incur debt to the amount of one tenth of their valuation.

The Legislature is to create boards of health for the State and for each parish and municipality. The local boards have practically absolute power in regard to sanitation and quarantine in their own provinces. The new provisions call for reorganization of the entire system of health regulations.

Radical changes were made in the organization of the courts, their powers and jurisdiction, and mode of procedure. The trial of misdemeanors without a jury; the trial for offenses where the punishment may be hard labor by a jury of 5; in felonies where the punishment is necessarily hard labor, by the concurrence of 9 jurors; requirement of the concurrence of 12 jurors where the punishment may be death,—are among the new provisions. Grand juries are to be composed of 12 members instead of 16 as heretofore, and to serve for six months instead of a single term, and any 9 of them may find a true bill. These provisions are to hold until 1904; after that the Legislature is at liberty to provide a different system. The Supreme Court selects judges of the Court of Appeals from district judges. The jurisdiction of the Supreme Court has been extended, as also that of the Court of Appeals for the district of New Orleans. The criminal code is to be thoroughly revised.

For improvement of roads, convicts may be worked on them in parishes where the authorities use the power given to them to levy taxes for maintenance of roads; and the Legislature may authorize employment of convicts on public works, and on farms or in workshops controlled by the State; but they are not to be leased after the expiration of the present contracts.

A railroad commission of 3 members is to be established, and a State Board of Charities; and the office of Examiner of State Banks is created.

The law relating to homestead exemptions was amended. The Legislature must pass laws to suppress dealings in options or futures on farm products and articles of necessity. Combinations to control the prices of such articles for speculation are declared unlawful.

The cost of the convention to the State was given as \$145,000. Ernest B. Kruttschnitt was President, and Robert S. Landry Secretary.

Legislative Session.—The Legislature was in session from the middle of May to the middle of July. There were 28 Democrats, 7 Republicans, and 1 Populist in the Senate, and 60 Democrats, 24 Republicans, and 14 Populists in the House.

A large number of the measures passed were for carrying out the provisions of the new Constitution.

A school for education of white children in the arts and sciences is to be established and called the Southwestern Industrial Institute.

The General Assembly passed an act to authorize

the Governor to appoint a commission to draft a new code of criminal procedure. There are 3 commissioners, who are to serve for a compensation of \$2,500 each, exclusive of incidental expenses. The Governor appointed James C. Moise, J. M. Thompson, and J. D. Wilkinson.

State lands are to be sold at 12½ cents an acre to actual settlers—160 acres to each—but proof of settlement and cultivation must be given within twelve months.

Banks are required to keep a reserve equal to one fourth, instead of one third, of their cash liabilities; the other three fourths to be in lawful money of the United States instead of specie and specie funds as formerly, or bills of exchange or discounted paper maturing in six months instead of ninety days as heretofore. Stocks subscribed to by bank companies are to be paid in lawful money of the United States.

Corporations to increase or decrease their capital stock must have a two-thirds instead of a majority vote.

A general law was passed for levying license taxes on corporations, firms, and individuals pursuing any trade, business, or profession, except those of clerk, teacher, clergyman, and laborer, and those in mechanical, agricultural, and mining pursuits, and manufacturers other than those of liquor, tobacco, and cotton-seed oil. Municipalities and parishes may levy additional license taxes, but these must not exceed those levied by the State. License taxes are to be levied on the gross receipts of telegraph, telephone, and electric corporations, those for the sale of meats and mineral oils, and banking companies, except those lending money secured only by mortgage or real estate.

A general law was made for reorganizing the State militia. Contributing members are to be exempt from military and jury duty. Independent organizations may not be formed without the consent of the Governor.

Municipalities were classified—villages, 250 to 1,000 inhabitants; 1,000 to 5,000, towns; over 5,000, cities—and general laws made for their government. Villages are to have 3 aldermen, towns 5, cities 5 to 9. The mayor, aldermen, and marshal are to be elected, and other officers appointed by the mayor and aldermen.

It was provided that three witnesses, instead of seven, as heretofore, shall be required for the mystic or secret testament.

Provision was made for a biologic station on the coast for investigation of questions of importance to the fisheries. The laws to prevent destruction of fish by seines, dynamite, etc., were amended, and also the general law for protection of game and birds.

A law was made relating to boards of health to conform to the requirements of the new Constitution. The State board has power over quarantine against contagious diseases, collection of vital statistics, and the enforcement of law against adulteration of foods.

An annual financial statement is to be made to the Secretary of State by every life insurance company. Policies of assessment or co-operative companies, not fraternal or benevolent, must have "Assessment Plan" printed across the face. Where fire companies choose to replace destroyed property under the three-fourths clause the insured shall not be required to contribute any part of the cost. General regulations for insurance were made in a law providing for incorporation and admission of companies under supervision of the Secretary of State.

A board of pension commissioners was created to carry out the provisions of the new Constitution in regard to pensioning Confederate veterans and

their widows. Pensions are not to exceed \$8 a month. Fees of attorneys prosecuting applications are not to exceed \$5.

Among other enactments were these:

Making it unlawful to gamble or permit gambling with slot machines for money; and for minors to gamble for prizes in stock in trade.

Amending the law concerning the gambling game of craps.

Making it a misdemeanor to take the skin of a dead animal belonging to another.

Creating a privilege upon a crop to secure payment for water for irrigating.

Providing for registration and protection of trade-marks.

Requiring teachers to pass examination in didactics.

Providing a penalty for maiming while fighting.

Imposing the death penalty for setting fire to or blowing up at night any building commonly occupied by human beings.

Fixing imprisonment for one to five years as punishment for bigamy.

Prohibiting the use of oil, paraffin, or the like in preparing rice for the market.

Political.—An election was held Jan. 11 to take the popular vote on the question of holding a constitutional convention, and at the same time to choose delegates to serve in case it should be decided in the affirmative. The vote for the convention was 86,178; against it, 7,578. Of the 134 members chosen, one was a Populist and one an Independent Democrat. All others, regular Democrats.

A State election was held Nov. 8 for the choice of three railroad commissioners as required by the constitution and act of the Legislature. Members of Congress were chosen in all the districts; and a judge of the Court of Appeals for the circuit of New Orleans, and two judges of the inferior courts of that city, were also chosen. The Democratic candidates were elected to all these offices. The railroad commissioners elected were C. L. De Fuentes, R. N. Sims, Jr., and W. L. Foster.

LUTHERANS. Two hundred and sixty years have passed since the first Lutheran congregation was organized in this country. It consisted of a pastor and fifty members. The place was Christina (Wilmington), Del., and the people were a colony of Swedes and Finns who arrived in 1638. The Lutheran Church has now attained a membership of 1,500,000. Following is a general summary of the statistics of the Church in this country in 1898: Sixty synods, 6,482 ministers, 10,513 congregations, and 1,535,552 communicant members; 3,500 parochial schools, with 3,710 teachers and 212,228 pupils (not all synods reporting); 4,919 Sunday schools, with 54,998 officers and teachers, and 487,694 pupils (not all reporting); and benevolent contributions amounting to \$1,118,143.62. This amount includes only those contributions which passed through the hands of synodical treasurers. The actual amount contributed is much larger. The theological seminaries number 25, with property valued at \$1,282,000; endowment amounting to \$663,185, having 103,950 volumes in their libraries, employing 86 professors and having 1,092 students. The colleges number 46, having property valued at \$2,616,380, endowment amounting to \$865,273, with 165,520 volumes in libraries, 302 professors, and 7,125 students, of whom 1,282 have the ministry in view (16 colleges not reporting the latter item). The academies number 36, having property valued at \$542,500, endowment amounting to \$85,000, with 20,384 volumes in libraries, 166 instructors, and 3,861 pupils, of whom, in 16 institutions, 274 have the ministry in view. The ladies' seminaries number 11, having

property valued at \$425,000, endowment amounting only to \$5,000, with 10,500 volumes in libraries, 137 instructors, and 1,039 pupils. The educational institutions number 118, having property valued at \$4,865,890, endowment amounting to \$1,609,458, with 300,354 volumes in their libraries, employing 691 professors, having 13,117 students, of whom 2,648 (48 institutions not counted) are in course of preparation for the ministry. Of the 118 educational institutions, only 50 have any endowment; the rest are supported by the gifts of individuals and congregations. The orphanages number 44, with property valued at \$978,849, endowment amounting to \$912,145, and having 2,100 inmates; the homes for the aged number 18, with property valued at \$206,000, endowment amounting to \$18,384, and 564 inmates; the deaconess institutions number 8, with property valued at \$647,500, endowment amounting only to \$200, but dependent on private charity, and having 271 inmates; 17 hospitals, with property valued at \$1,098,000, endowment amounting to \$30,554, and caring for 8,163 patients; and 11 immigrant and seamen's missions, with property valued at \$226,000, endowment \$6,510, and caring for 13,193 inmates. The total number of this class of institutions is 101, having property valued at \$3,156,349, endowment amounting to \$992,793, with 26,468 inmates. The total number of institutions under Church control is 219, with property valued at \$8,122,229, and endowment amounting to \$2,572,251, representing an investment of capital amounting to \$10,694,480. Only one of these institutions has been in existence more than fifty years; most of the others have been established within the past twenty-five years, and of the 219 institutions 150 are supported by the gifts of the people without the help of any invested endowment. The number of periodicals is 152, of which 64 are in English, 49 in German, 14 in Norwegian, 8 Danish, 7 Swedish, 3 Icelandic, 2 Finnish, 2 Slavonian, and 1 each in French, Lettish, and Estonian. In 1892 the benevolent contributions of the Church amounted to \$829,560.75; in 1896 the million-dollar mark was reached; and in 1898 the amount was \$1,118,148.62. This embraces only the contributions that passed through official channels, and fails to account for the sums that were contributed for missions at home and abroad and for the maintenance of various institutions.

Of the four general bodies only the Synodical Conference and the United Synod of the South held conventions. These two bodies, differing widely in many respects, embrace a communicant membership of more than 550,000.

Synodical Conference.—This body, composed chiefly of German pastors and congregations, held its seventeenth convention in Cincinnati, Ohio, Aug. 10-15, 1898. Representatives were present from the three district synods in organic connection with the general body, to wit: the synod of Missouri, Ohio, and other States; the general synod of Wisconsin, Minnesota, and Michigan; and the English synod of Missouri. These represented 1,879 ministers, 2,451 congregations, and 519,524 communicant members; 1,891 parochial schools, 1,782 teachers, and 102,642 pupils; and the combined contributions for missions, education, and other benevolent objects amounted to \$243,775.31. In connection with this body, or under synodical control, there are 4 theological seminaries, 11 colleges, 6 academies, 12 orphanages, 5 homes for the aged and other needy persons, and 3 hospitals. The Norwegian Synod, which for years has sustained an official relation to this general body, sent a letter of fraternal greeting to the convention. After divine service, the convention was formally organized for transaction of business, the Rev. John Bading, of

Milwaukee, Wis., presiding. Eight sessions were held, the morning sessions being devoted to discussion of the thesis on "Uniformity of practice in the Church," to wit: "As far as the church life of a congregation and its members also takes the form of a life in fellowship with other congregations and their membership, the congregation and its pastor must take into account this living in fellowship, firstly, by conscientiousness in practice as far as it is determined by the Word of God." The remainder of the time of the convention was devoted to the transaction of business. In this connection the report of the committee on negro missions claimed the first attention. An exhaustive report of the work of the committee was presented and considered, together with the report of the treasurer, which showed a total of expenditures amounting to \$30,401.14. The amount of \$30,000 was appropriated for this work for the next two years. New missions are to be established, and the work among the older missions prosecuted with vigor. The district synod of Michigan was admitted to membership in the conference. The next convention will be held in Bay City, Mich., in August, 1900.

United Synod, South.—This body, composed of the eight Lutheran synods in the South, held its sixth convention at Newberry, S. C., May 11-16, 1898. The synodical sermon was delivered by the president, the Rev. Robert C. Holland, D. D., of Charleston, S. C. Representatives were present from the eight synods, organically connected with the general body: those of North Carolina, Tennessee, South Carolina, Virginia, Southwestern Virginia, Mississippi, Georgia, and Holston synod of Tennessee. These synods have a membership of 207 ministers, 427 congregations, and 38,642 communicants, maintain 357 Sunday schools, with 3,095 officers and teachers and 25,805 pupils, and contributed for missions and other benevolent purposes \$20,904.27. The following were elected as the officers of the convention: The Rev. James B. Greiner, of Rural Retreat, Va., President; the Rev. Henry S. Wingard, D. D., of Springfield, Ga., Vice-President; the Rev. Melancthon G. G. Scherer, of Charlotte, N. C., Secretary; and C. H. Duls, Esq., Treasurer. The report of the Board of Missions and Church Extension claimed the first attention of the convention. Since the organization of the general body, in 1886, 20 missions have been organized or aided by the board. In these missions are more than 1,300 communicant members, about 1,100 Sunday-school pupils, and church property valued at \$75,000. There are 9 missionaries in the employment of the board, with 2 under appointment, and 4 more are needed to carry on the work. The board asked for an appropriation of \$8,000 for home missions annually. The board also supports a mission in Japan, with the city of Saga as the center of operations. This work is comparatively new, and is in need of additional workers and increased support. Nevertheless, the missionaries have made a commendable beginning in direct missionary work, in establishing schools, in securing native helpers, and in the publication of helpful literature in Japanese. Luther's Small Catechism and the Common Service of the Lutheran Church have been published. The latter is a book of 430 pages, and contains the various forms of service and the ministerial acts, as contained in the book published for the use of congregations in America. Both books were greatly needed in the development of the mission and have rendered valuable service. The field of operations embraces the island of Kyushyu and the city of Saga and its vicinity. The latest statistics are as follows: Two ordained missionaries, part of the time, 3 unor-

dained native helpers, 6 stations, 74 communicant members, 4 Sunday schools with 150 pupils, and 3 candidates for the ministry. The board ask for \$4,500 annually for the maintenance of this work.

The board of directors of the Theological Seminary reported concerning its operations. The Theological Seminary, formerly at Newberry, has been located at Mount Pleasant, S. C., where a valuable property has been secured for it. The former president of the institution having resigned, the Rev. John A. Morehead, of Richmond, Va., was elected to that office. During the last scholastic year at Newberry, the institution had only nine students.

In the matter of practical co-operation among Lutherans, and of the General Conference of Lutherans, arrangements were made for co-operation with the General Council and the General Synod, and a representative of the body was appointed as a member of the Committee of Arrangements. As this is a matter of general interest to the Church at large, it is included in the report of the Committee on Co-operation with other general bodies. The following action, which has been approved by both the General Council and General Synod, was taken by the joint committee:

"1. That we recommend to the bodies which we represent, for their adoption, the following rule: That where any general body has congregations, whatever be the language, the establishment of a congregation of another general body within the territory be not undertaken, unless the Board of Missions of the body occupying the territory and the officers of the synod on the field be first consulted.

"2. That a Committee of Arbitration, representing the bodies that enter into the compact, be constituted, to whom shall be referred all cases where agreement has not been otherwise obtained."

The following action was also taken:

"1. It is the sense of this committee that the Committee of Arbitration should consist of not more than three members from each of the general bodies; and that in this Committee of Arbitration each general body should have but one vote, and that its decision on any subject referred to it should be published as soon as adopted.

"2. This committee hereby requests the general bodies to appoint their representatives on the Committee of Arbitration at their next conventions.

"3. That this committee regards the adoption of common orders of ministerial acts and a common hymn book, in addition to the Common Service, as very desirable."

Regarding the matter of a common book of worship, the General Council has taken the following action:

"Resolved that the Church Book Committee be appointed, to confer and co-operate with committees from other Lutheran bodies in the preparation of a common book of worship, including, besides the common order of service, orders for ministerial acts, and a book of hymns in the English language."

The General Synod approved the action of the joint committee with respect to the common book of worship, and gave forth the following declaration, looking to the compilation of a common hymn book:

"Resolved, That this synod will do what it can to further the object, consistent with the fact of the issuance of a new hymn book of its own.

"Resolved, That the General Synod will look with favor upon any movement toward the preparation of common orders for ministerial acts by and for the bodies of this compact.

"In view of the favorable action taken by the General Synod and General Council in their ap-

proval of the action of the Committee of Co-operation, and their evident desire for continued co-operation; therefore resolved:

"1. That this body indorses the action of the joint Committee of Co-operation, and reaffirms its earnest plea for the adoption, at as early a date as possible, of one common book of worship, including ministerial acts and hymnal.

"2. That the Common Service Committee be appointed as the Committee on Co-operation, and also as the Committee of Arbitration; and that said committee be authorized to confer with similar committees of the other general bodies in the furtherance of the objects contemplated in the appointment of said committees.

"3. That we approve the recommendation of the joint committee for the holding of a general conference or diet; and that Rev. H. F. Scheele be appointed to represent this body, to co-operate with Dr. H. E. Jacobs and Dr. S. W. Owen in arranging for such diet."

On the territory of this general body are maintained 1 theological seminary, 5 colleges, 4 academies, 4 colleges for women, and 1 orphanage.

The next convention of this body will be held at Winston, N. C., in May, 1900.

The General Council and the General Synod held no conventions during the year, but their biennial conventions will be held in 1899. Several of the larger independent synods held important conventions, notably the Joint Synod of Ohio, the German Iowa Synod, and the United Norwegian Church. The congregations and institutions, both educational and benevolent, of these bodies cover a large part of the United States, especially the States in the middle west and northwest; and they are doing a most important work among the Germans and Norwegians of this country. In their rapidly growing educational institutions they are training the youth of these nationalities in the language of the country, and are thus affording them privileges which will make of them useful citizens and intelligent workers both in the State and in the Church.

Sesquicentennial of the Ministerium of Pennsylvania.—The sesquicentennial of the Evangelical Lutheran Ministerium of Pennsylvania and adjacent States was an occasion of more than ordinary importance in the long and interesting history of the body, and was celebrated with special services in Philadelphia, June 2-4, 1898. The Ministerium was organized in that city one hundred and fifty years ago. In 1893 the president of the Ministerium, in his official report, directed attention to this interesting event in the history of the mother synod of the Lutheran Church in this country. In accordance with his suggestion, action was taken which resulted in making arrangements for the observance of that event. The officers of the Ministerium and the faculty of the Theological Seminary were appointed a committee to present a plan by which the suggestion of the president could be carried into effect. In the following year this committee recommended the publication of a volume containing the minutes of the Ministerium for the first century of its history, together with such historical matter as is now in the archives of the body. The result of this action is the publication of an excellent jubilee memorial volume of 600 pages, bearing the title "Documentary History of the Evangelical Lutheran Ministerium of Pennsylvania" (Philadelphia, 1898). Other literature called forth by the event may be mentioned, as follows: "Our Jubilee," a quarterly, presenting the history of the Ministerium and its institutions; the "Jubilee Bulletin" of the Danville Conference, a monthly, presenting congregational histories; the jubilee

number of the "Lutheran Church Review," with articles bearing on the history, position and activity of the Ministerium; the "History of the Wilkes-barre Conference," an illustrated volume of 250 pages, presenting historical sketches of its congregations; and the "Danville Conference Memorial Volume," of 372 pages, presenting a history of the conference, histories of its congregations, sketches of the lives of its pastors and pioneer missionaries, and a report of the sesquicentennial celebration with the addresses delivered on that occasion.

The sesquicentennial celebration, with its interesting services, brought together thousands of Lutherans, and the addresses brought out facts of great historical interest and importance, recalling the feeble beginnings of the Church in this country, the heroic and self-denying labors of the early pioneers, the providential guidance of the Church in the past and the important results accomplished in the line of missionary work, the establishment of congregations, and the founding of institutions of learning and mercy.

When, on Nov. 25, 1742, Henry Melchior Muhlenberg arrived in Philadelphia as a missionary among the scattered German Lutherans in Pennsylvania and the adjoining provinces, he found the people in an unorganized condition. Organized congregations existed in New York, consisting of emigrants from Holland and Germany, and along the Delaware, consisting of Swedish settlers. Though numerous settlements of Germans had been effected in the newly opened province of Penn in the beginning of the eighteenth century, there were only a few Lutheran congregations, between which there was no bond of union except a common name and faith which had been brought from the fatherland. The arrival of Muhlenberg was the direct result of the missionary activity of Lutherans in Germany and England; and it was the beginning of a new era in the history of the Church in this country, the first members of which had arrived not later than 1623. The Ministerium of Pennsylvania was organized in Philadelphia, Aug. 26, 1748. There were present and took part in the organization five German and one Swedish ministers—Henry Melchior Muhlenberg, Peter Brunnholtz, John Fr. Handschuh, John Christian Hartwig, provost John Sandin, of the Swedish Church, and John Nicolaus Kurtz, ordained at this meeting, and lay delegates from the widely separated congregations of these pastors, representing a communicant membership of several thousand, scattered over the provinces of Pennsylvania, New York, and New Jersey. The Ministerium is the oldest synodical organization of the Lutheran Church in America, and therefore the "mother" synod of numerous similar organizations in Pennsylvania and other States, and has always occupied a prominent position in the Church. Up to the time of organization of the synod the pastors had provided for the interests of the congregations which appealed to them for assistance, by consulting with one another and with the congregations. For some time previously they had felt the necessity of a closer bond of union among themselves and their congregations, in order to carry on successfully the arduous work intrusted to them. They realized that the individual congregations must be made to feel that they were organic parts of the Church, and that through their lay representatives they had a voice in the management of affairs. This union of pastors and congregations was felt to be a necessity, for the purpose of maintaining order and exercising discipline; for providing

for the common necessities of the scattered people; as well as preserving the Church against dangerous influences from without and disturbing forces from within. They inquired carefully into the condition of the congregations, adopted measures for the government of the same, and provided an order of service based on the consensus of the best liturgies of the Lutheran Church of the sixteenth century.

The history of the Ministerium for nearly half a century afterward is the history of the Lutheran Church in North America. The work of the synod for many years was missionary work in Pennsylvania, New York, New Jersey, Maryland, and Virginia. From year to year, too, its work extended throughout these States and beyond, reaching Nova Scotia in the north and Georgia in the south. Twenty-five synods have directly or indirectly grown out of the original organization and are now occupying the territory formerly embraced in the territorial bounds of the mother synod. The Ministerium of Pennsylvania took a leading part in the organization of the General Synod in 1821 and the establishment of the educational institutions at Gettysburg. When, for doctrinal reasons, it withdrew from that body in 1866, it again took a leading part in the organization of the General Council, in 1867, on a thoroughly Lutheran basis. It has established and maintains the Theological Seminary at Mount Airy, Philadelphia, with property valued at \$150,000 and endowment amounting to nearly \$200,000, and Muhlenberg College, at Allentown, Pa., with property valued at \$100,000 and endowment of \$154,000. It controls two orphanages and the mother house of deaconesses in Philadelphia. The Ministerium was the prime mover in the establishment of the mission in India, in 1841, and is still the largest contributor to the support of that work. Early in the present century it began missionary work in the West, which has resulted in the establishment of large and flourishing congregations, institutions, and synods in Ohio, Michigan, Wisconsin, Minnesota, and other Western States, and in Maryland, Virginia, the Carolinas, and other States in the South.

General Conference of Lutherans.—This convention was held in Philadelphia, Dec. 27-29, 1898, and was called by authority of the three general bodies—General Synod, General Council, and United Synod of the South—embracing more than half the membership of the Church in this country. The convention was called for the purpose of comparing views, with the aim of ultimate union among the bodies represented, and the subjects discussed was intended to bring out the unanimity of sentiment among the representatives. The convention was attended by 163 clergymen and a large number of laymen. The meetings were held in St. John's Church, on Race Street, the oldest English Lutheran church in the United States, in St. Matthew's Church, on North Broad Street, and in the chapel of the Mary J. Drexel Home of Deaconesses. The sessions were presided over by the three members of the joint committee—the Rev. Drs. Henry E. Jacobs, of Mount Airy, Philadelphia; Samuel W. Owen, of Hagerstown, Md.; and H. Frank Scheele, of Staunton, Va. The secretaries were the Rev. Drs. William S. Freas, of Baltimore, Md., and S. E. Ochsenford, of Selinsgrove, Pa. The treasurer was William H. Staake, Esq., of Philadelphia. The 23 papers read were of an exceptionally high order and clearly set forth many of the fundamental principles of the Church, concerning which there appeared to be no disagreement.

M

MADAGASCAR, an island colony of France, near the southeast coast of Africa, formerly a kingdom, recognized by Queen Ranavalona III as a French protectorate on Oct. 1, 1895, as the result of a war, and declared a French colony on Aug. 6, 1896. The Queen was deposed on Feb. 27, 1897. The French tariff was applied in August, 1897, in spite of the protest of the British Government, which claimed, under international law and by virtue of a pledge of the French Government, that the protectorate did not alter the engagements of the Madagascan Government and the assurance that no change in the status was contemplated; that the rights and immunities enjoyed by British subjects remained intact. Consular jurisdiction was relinquished by Great Britain in return for a like concession given by France in respect to Zanzibar. As regards commercial privileges, the French Minister of Foreign Affairs held that these were abrogated by the act of annexation. In 1898, after subduing a rebellion of the western Sakalavas, Gen.

belonging to many different tribes in various stages of civilization, number from 3,500,000 to 5,000,000. The area of the island is 228,500 square miles. The French Government contributed 15,710,000 francs to the cost of government in 1898, and by a recently organized system of revenue and taxation 10,000,000 francs were collected in the island. A loan of 30,000,000 francs was raised at 3 per cent. in 1897 for the purposes of converting the 6-per-cent. debt of 15,000,000 francs and making internal improvements. The rebellion of the tribes, which began in 1896, was instigated by British subjects, Indian and Arab traders, who exchanged guns and ammunition for slaves and gold dust, and who, to save their trade, appealed for British interference. In the south and parts of the west, where the influence of the Banian traders was powerful, the state of the country was still unsettled in the beginning of 1898. Between Fort Dauphin and the capital bands of robbers defied the Government and prevented the exploitation of the caoutchouc forests. After the



ANTANANARIVO, MADAGASCAR, FROM THE WEST.

Gallieni, the Governor General, set thousands of natives to work building roads from Antananarivo, the capital, toward the coasts, east and west. Through a pass discovered in the Mandraka ridge a good road will connect the central province of Imerina with the port of Tamatave, the harbor of which is being improved. The telegraph system has been extended, and surveys have been made for railroads, the most important being a line from Tamatave to the capital. The capital is connected with Tamatave and with Majunga by telegraphs, and the latter port with the submarine line to Europe by a cable to Mozambique. A beginning has been made with French colonization. The natives,

repulse of 400 Sakalavas at Ambiky with a loss of 53, many of the western rebels submitted. The whole island was pacified before the close of the year. Algerian troops serving in Madagascar were sent home.

MAINE, a New England State, admitted to the Union March 15, 1820; area, 33,040 square miles. The population, according to each decennial census since admission, was 298,269 in 1820; 399,455 in 1830; 501,793 in 1840; 583,169 in 1850; 628,278 in 1860; 626,915 in 1870; 648,936 in 1880; 661,086 in 1890. Capital, Augusta.

Government.—The following were the State officers during the year: Governor, Llewellyn

Powers; Secretary of State, Byron Boyd; Treasurer, F. M. Simpson; Attorney-General, Wm. T. Haines; Adjutant General, John T. Richards; Superintendent of Public Schools, W. W. Stetson; Insurance Commissioner, S. W. Carr; Bank Examiner, F. E. Timberlake; Superintendent of Public Buildings, E. C. Stevens; Liquor Commissioner, James W. Wakefield; Commissioner of Labor, Samuel W. Matthews; Inspectors of Prisons, Whitman Sawyer, A. W. Gilman, Augustus Bailey; Secretary of Board of Agriculture, B. W. McKeen; State Librarian, Leonard B. Carver; Railroad Commissioners, J. B. Peaks, Frederick Danforth, Benjamin F. Chadbourne; Commissioner of Sea and Shore Fisheries, O. B. Whitten; Commissioners of Inland Fisheries and Game, Leroy T. Carleton, Henry O. Stanley, Charles E. Oak; Cattle Commissioners, George H. Bailey, F. O. Beal, John M. Deering; State Assessors, William C. Marshall, Otis Hayford, George Pottle; Chief Justice of Supreme Judicial Court, John A. Peters; Associate Justices, Albert R. Savage, Sewell C. Strout, Lucilius A. Emery, Enoch Foster, Thomas A. Haskell, William P. Whitehouse, Andrew P. Wiswell; Clerk, W. S. Choat; State Reporter, Charles Hamlin; State Detective, Dennis Tracy—all Republicans.

Finances.—During the past two years \$247,074 have been paid in principal and interest on the bonded indebtedness of the State, leaving \$2,205,000 still due. The receipts from all sources in 1898 were \$1,854,804.66; cash in treasury, Jan. 1, 1898, \$150,352.22; amount of warrants drawn and paid, \$1,851,981.15; cash balance, Dec. 31, 1898, \$154,723.73; excess of expenditures over receipts in the past two years, \$198,776.85; rate of taxation for 1898, 24 mills; total liabilities of the State, Dec. 31, 1898, \$4,100,826.67. All taxes against cities, towns, and organized plantations have been paid in full.

Banks.—The number of banking institutions in the State was reported to be 182; entire banking capital, \$116,284,620.04, an increase of \$1,673,796.84 over 1897. The number of banks under the supervision of the Bank Examiner was 100—51 savings banks, 17 trust and banking companies, and 32 loan and building associations—an increase of 1 in the number of trust and banking companies and a decrease of 1 in the number of loan and building associations during the year; total assets, \$76,875,538.69; number of depositors, 192,625; amount paid in interest and dividends, \$2,535,863.66; amount that would accrue to each person in the State by an equal distribution of these assets, \$115.53, against \$110.81 in 1897.

The number of national banks doing business in the State was 182; assets, \$39,909,081.35; amount on deposit in the 51 savings banks, Oct. 29, 1898, \$60,852,557.34, an increase of \$1,254,208.66 from Nov. 6, 1897, to Oct. 29, 1898; number of depositors, 169,714, an increase of 1,835; average amount to each depositor, \$358.56 as against \$355.01 in 1897; average amount for each person in the State, \$92.05; average rate of dividends, 3.53; total amount deposited during the year, including dividends, \$12,081,579.42; aggregate of reserve and undivided profits, \$3,282,079.96; amount of State tax on savings banks for 1898, \$394,016.12.

The 17 trust and banking companies on Oct. 29, 1898, had a capital stock of \$1,586,400; surplus, \$324,000; total liabilities, \$9,182,997.50; number of depositors, 14,755, an increase of 1,750 during the year; amount of deposits, \$6,201,118.28; amount of interest paid during the year on all deposits, \$125,042.13; on savings deposits alone, \$101,680.70; amount of dividends paid stockholders, \$91,752, an increase of \$6,000 over 1897; average rate of dividends paid stockholders, 5.78. The total liabilities

of the 32 loan and building associations were reported as \$3,009,998.77; number of shareholders, 8,156; number of shares outstanding, 44,758½, a decrease of 711 since 1897; dividends paid, \$173,744.81, a decrease of \$39,650.93, owing to the fact that one association in 1897 charged off all dividends previously paid, in readjusting its accounts, and declared a new dividend upon all its outstanding shares; average rate of dividends paid shareholders, 6.5 per cent.

Valuation.—The valuation of the cities, towns, and plantations for 1898, as returned by the assessors, was as follows: Real estate, \$221,355,754; personal estate, \$63,144,504; total valuation, including wild lands, \$329,516,244, an increase of \$1,015,250 over 1896; amount of money at interest in the several counties for 1898, \$9,758,662; stock in trade, \$16,500,158; bank stock, \$7,914,261; trust companies' stock, \$728,085; stock of other companies, \$638,151; shipping, \$2,372,999; logs and lumber, \$1,429,849; wood and bark, \$271,322; railroad property, \$2,753,918; street railways, \$331,550; value of bicycles, \$324,420; carriages, \$1,249,055; musical instruments, \$1,847,313; furniture, \$1,152,782; taxes assessed upon telegraph, telephone, and express companies, \$13,649; taxes assessed semi-annually upon loan and building associations, \$336.05; total amount on savings banks, \$394,016.12; on railroads, \$179,952.83; total number of polls in the State paying State tax for 1898, 190,219; receipts from stumpage sold by the land agent for the year, \$11,838. About \$500,000 of the gain in the valuation of real and personal property for the year was on account of property heretofore exempted from taxation.

Insurance.—The number of companies' licenses issued in 1898 was 164; value of them, \$3,285; number of agents' licenses, 3,796; value, \$7,592; number of brokers' licenses, 116; value, \$1,160; number of companies examined, 5; number of life policies in force on Dec. 31, 1897, 56,114; amount of insurance in force, \$52,853,970.12; increase in number of policies issued during the year, 4,372; in amount of insurance written, \$1,829,638.75; increase in the number of policies in force, 5,669; increase in the amount of insurance in force, \$4,313,689.12; in the amount of premiums received, \$154,439.08. There were 245 fire and marine insurance companies, fraternal beneficiary organizations, etc., doing business in the State on Dec. 31, 1897; 156 companies' licenses were issued; value of licenses, \$3,165; number of agents' licenses issued, 3,632; value, \$7,592; number of brokers' licenses, 141; value, \$1,365; number of companies examined, 6.

Railroads.—On June 30, 1898, there were 1,748.95 miles of steam railroads in operation; on Nov. 30, 1898, 1,872.80; total mileage, 1,723.80 of broad gauge and 148.92 of narrow gauge; gross transportation earnings, \$8,231,018.63, against \$8,237,971.15 in 1897; number of tons of freight carried, 5,646,376, against 5,445,524 in 1897; total passenger-train mileage in the State, 3,270,128; total freight-train mileage, 3,049,226; gross assets, \$102,386,272.56, a



LLEWELLYN POWERS,
GOVERNOR OF MAINE.

decrease of \$4,603,722.53 from assets of 1897; gross liabilities, \$98,670,580.35, a decrease of \$5,176,539.71 since 1897; number of men employed, 5,852; wages of men, \$2,811,287.47; gross earnings of the narrow gauge for the year, \$166,414.46; expenses of operating, \$126,586.93; income from 4 roads, \$43,249.57; deficit of 3 roads, \$5,422.34; 1 three-foot gauge not in operation; number of miles of street railways in operation Nov. 30, 1897, 161; number of miles built during 1898, 52.23; total mileage of street railways, 213.23; number of men employed, 725, an increase of 125 in 1898; wages received, \$325,000; number of passengers carried, 14,651,165, against 13,961,980 in 1897; gross earnings for the year, \$819,956.06, against \$770,614.19 in 1897. Nearly 8,000 persons in the State were supported by the operation of the railroads in Maine, receiving \$3,200,000 in wages.

Industries.—In 1898 there were 16 cotton mills in the State with 869,437 spindles and 51 woolen mills with 347 sets of cards. Of the 10 cotton mills that reported, the capital invested was given as \$12,558,500; cost of material, \$3,905,748; value of product, \$7,445,394; number of weeks in operation, 47.2; average number of hands employed, 9,583; total wages paid, \$2,596,181; increase of capital during the year, \$470,000; decrease of cost of material, \$402,271; decrease in total wages paid, \$107,770; decrease in value of product, \$346,032; decrease in average weekly wages of men, 14 cents; of women, 18 cents; increase in average weekly wages of children, 1 cent; decrease in number of men employed, 38; increase in women employed, 275; increase of children, 37. The report from 22 woolen mills showed an increase in capital invested of \$341,995; increase in cost of material, \$327,925; increase in total wages paid, \$147,996; increase in value of product, \$823,512; decrease in average weekly wages of men, 43 cents; decrease in average weekly wages of women, 23 cents; increase in average weekly wages of children, 13 cents; increase in number of men employed, 184; in women employed, 53; decrease in number of children, 4; increase in average number of employees, 233.

The number of buildings erected in 1898 was 72, against 95 in 1897; total cost, \$675,100; number of persons employed, 2,024. The number of foundries and machine shops was 170; number of plants for manufacture of general furniture, 6; of chairs as a specialty, 5; of spring beds, 4; of cabinetwork, 30; of upholsterers, 40; number of workmen in furniture-making, 700; capital invested in the manufacture of furniture, \$500,000; daily wages of men, \$1.75; of women, \$1.25. There were 15 boot and shoe shops; capital invested, \$853,500; cost of material, \$2,195,612; value of product, \$3,515,939; total hands employed, 1,881; total wages paid, \$819,774. The percentage of raw material in textile fabrics has varied little since 1880, while in boots and shoes it fell from 66.6 per cent. in 1880 to 56.1 in 1890, and increased to 62.5 in 1897. The percentage of wages in textiles showed a steady increase from 1880 to the present year, while in boots and shoes it increased from 22.9 per cent. in 1880 to 29.8 per cent. in 1890, and declined to 23.3 in 1897. The percentage of margin in textiles declined constantly from 1880 to 1897, while in boots and shoes it increased from 10.5 in 1880 to 14.2 in 1898. The number of two-hundred spools turned out each year is estimated at 750,000,000; spool bars exported, 13,500,000 feet, at an average price of \$18.50 per 1,000 feet; total amount of spool bars manufactured, 35,000,000 feet; value of spools made during the year, \$1,000,000.

Wood Novelty.—The wood novelty business in Maine is prosperous. Of the 21 plants, all but one are busy. The product is mostly sold out of the

State, and Maine people are employed in the factories.

Brickmaking.—The season was unusually severe upon the brickmakers of Maine; net price of brick, \$5 a 1,000; number of men employed in the 53 yards that reported, 507; output, 54,500,000 bricks.

Shipping.—The amount of shipping in the State was \$2,372,999. There were 29 vessels built in Bath, aggregating 28,689 tons.

Summer Resorts.—The number of guests reported by 97 hotels and boarding houses was 108,736; from outside of the State, 48,942; amount received from guests outside of the State, as given by 70 houses, \$386,096; paid for help by 73 houses, \$76,552, an average of \$1,049 per house.

State Institutions.—The Maine State College received from the State for instruction the sum of \$22,000; for investigation in agriculture and the sciences, \$15,000; endowment fund, \$231,000.

The whole number of boys committed to the Reform School since its opening is 2,216; average number in 1898, 136; number committed during the year, 45; number of boys in the institution Nov. 30, 1898, 142; appropriation for 1898, \$50,500. The receipts from the farm were \$7,497.21.

The number of patients that have been under the care of the Insane Hospital since its opening is about 9,000; number discharged as recovered, 3,000; number discharged as improved, about 3,000; number admitted during 1898, 234; number under treatment during the year, 947; number remaining Nov. 30, 1898, 733; number of patients maintained entirely by the State, 87; entirely by their own means, 53; aided in part by the State, 598. A convenient carpenter's shop has been built during the year, also an engine and boiler house. The disbursements from the Coburn fund for amusements was \$1,265. The balance on hand in the Library fund, Nov. 30, 1898, was \$3,230.05.

The assets for the State Prison on Nov. 30, 1897, were \$88,068.72; liabilities, \$6,442.16; total assets for 1898, \$81,626.62; number of prisoners, 218; of insane, 12; number sentenced during the year, 90.

Education.—The whole number of persons in the State between the ages of four and twenty-one was reported to be 210,341; whole number of different pupils registered during the year, 132,139; number of schoolhouses, 4,162; built during the year, 99, at a cost of \$171,694; number of male teachers in summer term, 405; in winter, 321; female teachers in summer, 4226; in winter, 3,719; average wages of male teachers per month, excluding board, \$40.64; female teachers per week, \$6.47; whole amount of school money raised by towns, \$744,667; total school resources, \$1,389,044; expended for common schools, \$1,277,628; paid by towns for school superintendence, \$56,270.

There were 56 free public libraries in January, 1898, with 205,400 volumes; number of different libraries reported, 262; total number of volumes, 677,700. Fifteen libraries have an endowment fund of \$10,000 or more each.

Live Stock.—The State assessors reported the number and value of live stock as follow: Horses, 132,592, value \$6,108,956; three-year-old colts, 3,466, value \$181,403; two-year-olds, 3,500, value \$98,681; one-year-old, 2,469, value \$50,505; cows, 137,444, value \$896,550; oxen, 8,898, value \$398,992; three-year-old cattle, 26,642, value \$508,164; two-year-olds, 40,621, value \$545,273; yearlings, 42,254, value \$3,071,513; sheep, 238,519, value \$584,066; swine, 37,551, value \$202,901; total value, \$11,832,904, as against \$11,319,817 for 1897. From 1879 to 1889 the number of horses increased 14,796, and colts increased 9,665; from 1889 to 1898 horses increased 18,710 and colts 3,897; from 1893 to 1896 horses in-

creased 4,000 a year, and from 1896 to 1898 only 129 a year, while colts have decreased 20,281 in the last five years.

Poultry.—By an act of Legislature of 1897-'98 the local assessors are called upon to account for every kind of poultry in their town or city, and to make returns to the State assessors. Such reports showed the total number of hens to be 1,557,252; value of poultry and eggs, \$1,871,781.17; number of turkeys, 5,268, value \$15,362.20; ducks, 9,018, value \$23,258.10; geese, 3,445, value \$7,472.33.

Fisheries and Game.—The hatching troughs have been well filled with spawn, and the number of fish reared and liberated has been encouraging. The number of prosecutions for the violation of the fish and game laws was 115; aggregate of fines imposed, \$3,904; fines paid, \$2,634; number of days of jail sentences for violation of the moose law, 1,050; number of days served, 420; receipts and fees from registration of guides, \$1,316; from the State, \$25,000; from taxidermists' licenses, \$30; total receipts, \$26,931.78; expenses, the same.

In mackerel fishing 239 men and 300 boats were employed; number of pounds of fish sold fresh, 814,130, value \$47,125; number of barrels salted, 665, value \$9,450; canned, 6,591. The total capital invested in sea-shad fishing was \$2,363,374; the number caught in 1898, 1,152, value \$23,720. In the herring fisheries 1,470 men were employed, and the amount received from the herring sold was \$730,058. Sardine packing gave employment to 5,839 persons in the State; wages received for labor, \$811,775; value of the 178,694 cases put up, \$2,727,781; of the oil, \$4,635; of the fertilizer produced, \$6,820. The number of men employed in lobster fishing was 3,103; number of lobsters handled, 8,178,332; number of seed lobsters furnished to the United States hatchery in 1897, 21,365; eggs resulting, 25,207,000; fry hatched, 22,875,000; number planted in Maine, about 21,875,000. In the menhaden industry 869 men were engaged and 83 steamers, at an expense of \$105,000 paid employees; number of tons of pomace procured as fertilizer, 9,120 tons. In digging clams and scallops 550 men were employed; product of the canneries, 40,933 cases; in the shell, 1,109,936 bushels. The catch of smelts for 1898 was 1,156,684 pounds; persons engaged in the work, 1,095. In ground fishing, 819 boats and 1,291 men were employed; fish taken, 32,952,619 pounds, value \$565,271.

New Game Laws.—The Maine Sportsman's Association reported that the calf moose is one "not less than a year old and having two prongs or tines to its horns." The open season on caribou was made to begin on Oct. 5 and to close on Dec. 1. The open season on deer will be from Oct. 1 to Dec. 15, except as to the clause added as follows: "Permitting the taking of deer, for food purposes only, during September, and to be consumed by the party taking it in the locality where taken, when accompanied by a registered guide, under such rules and regulations as the commissioners shall establish from time to time, on payment of a fee of \$6 by a non-resident and \$4 by a resident."

In order to transport lawfully killed game without being accompanied by the owner, a tag provided by the commissioner must be purchased at a fee of \$5 for a moose, \$3 for a caribou, and \$2 for a deer, and this tag must be attached to the game.

The sale of ruffed grouse and woodcock was declared absolutely prohibited, and only 10 of any one kind of game may be taken by any one person in any one day. The open season on fish was declared to begin in the spring as soon as the lakes and ponds are free from ice, instead of May 1, as hitherto. All ice fishing for trout and salmon in the counties of Somerset and Kennebec was declared prohibited.

The close time on white perch is from April 1 to July 1. The law requiring the registration of guides was strengthened, and three classes were named for registration, viz.: first, second, and beginner's class.

Guides.—The Legislature of 1897-'98 enacted a law requiring a record to be kept by the commissioners of the name, age, and residence of all persons engaged as guides in inland fisheries or game hunting, and also the number of days employed as guides, and the number of persons guided, residents and non-residents. Since the law was enacted the number of guides registered is 1,766; number registered in 1898, 1,443, three of whom were women; residents guided, 5,820, against 3,384 in 1897; non-residents guided, 7,366; number of days the guides were employed, 63,501, against 51,918 in 1897; greatest number of days any one guide was employed, 182; total number of moose killed, 260; caribou, 160; deer, 11,000; bears, 160; total pounds of fish caught, 70 tons; total receipts from commissions, \$29,024.

Indians.—The number of the Penobscot tribe reported was 393; of the Passamaquoddy, 475; number of children in school, 109; money expended for the Passamaquoddy tribe during the year, \$8,971; amount of appropriation unexpended, \$32.

Pulp and Paper Mills.—The first pulp mill was built in Maine in 1870. In 1880 there were 7 of these mills, with a capital of \$440,000, and 12 paper mills, with a capital of \$2,000,000. In 1895 the pulp and paper-making industry was estimated at \$12,000,000, and the daily output was 1,162 tons. In the three years since, the increase has been even more marked.

Liquor Traffic.—The number of places in the State where special tax receipts were held was estimated at 1,025, but 113 dropped out of business during the year; total public revenue from the liquor traffic, \$128,823.56; total amount of fines and liquor confiscated and sold, \$92,964.26; net profits of the agencies, \$9,466.10.

Political.—The Populist convention met in Bangor, June 2, and nominated Robert Gerry as candidate for Governor. The resolutions declared for the platform of 1896 on the silver and bonded-debt question. Other planks demanded that all railroad, telegraph, and telephone systems be owned and operated by the Government; that all undesirable foreign immigration be absolutely prohibited; that all trusts and combinations for the purpose of speculating in the necessities of life be prohibited, and their promoters be treated as outlaws; that all land held for speculative purposes be taxed to the full extent of its rental value; for the initiative and referendum; and that all persons, firms, and corporations in the State of Maine employing the labor of unnaturalized foreigners be compelled to pay into the city or town treasury where such persons, firms, or corporations are located, 50 cents a day for each foreigner thus employed.

The Republican convention assembled at Augusta, June 28, and renominated Llewellyn Powers for Governor. The platform invited the voters of Maine, "without distinction of party," to join in maintaining the following principles: "Firm support of President McKinley and his administration in the conduct of the war with Spain and a recognition of the President's wisdom in the management of the Cuban question; cordial appreciation of the valor of the army and navy as shown by the brave deeds of the sailors and soldiers in the war; and the sacred duty of the State to protect and care for their wives and children while they carry liberty to the oppressed and defend the nation's honor; a currency for business and labor, the soldier and the pensioner, that is as good as gold the world over; all necessary legislation in the interests of labor, of

temperance, of education, and economy in the State administration.

The Democratic convention met in Bangor, June 30, and declared unqualified approval of the principles of the Chicago platform. The resolutions declared opposition to the prohibitory law, and recommended that the constitutional amendment relating thereto be repealed, and the question be resubmitted to the electors of the State. The platform demanded a reduction of tariff rates upon all railroads of Maine, as necessary for the business interests of the State; that all mileage books be good to the bearer, and that the limit of baggage be increased. They resolved that, "while we deprecate the horrors of war, it is now the duty of all to give their aid and support in order to bring to a successful termination the present conflict." Their candidate for Governor was Samuel L. Lord, of Saco.

On the same day the Prohibitionists met in Waterville and nominated for the office of Governor the Rev. Ammi S. Ladd.

On July 21 the gold Democrats convened in Portland and made Erastus Lermond their nominee for Governor.

At the election Llewellyn Powers, Republican, was elected Governor. The returns, as reported to the Legislature, were as follow: Powers, Republican, 54,098; Lord, Democrat, 28,485; Ladd, Prohibitionist, 2,326; Gerry, Populist, 641; Lermond, Gold Democrat, 315; scattering, 47.

All the representatives in Congress are Republican, and on joint ballot the State Legislature will have 157 Republicans and 25 Democrats. The vote on the constitutional amendment, providing that vacancies in the Senate shall be filled by an immediate election in the unrepresented district, stood, yeas, 15,080; nays, 1,856.

MANITOBA, a western province of Canada; area, about 80,000 square miles. Capital, Winnipeg.

Statistics.—The following table, compiled from the municipal statistical statement for 1897, gives the figures regarding the province in every direction of its development: Population, 108,957; number of resident farmers, 28,372; total number of acres in rural municipalities, 13,051,375; acres under cultivation, 2,371,441; acres wooded, 840,385; number of horses, 92,762; number of cattle, 214,468; number of sheep, 32,986; number of pigs, 70,885; assessment, real and personal, \$42,827,442; total taxes imposed in 1897 for all purposes, \$674,268.61; average yield of wheat in 1897, 14.14 bushels per acre; average yield of oats, 22.7 bushels per acre; average yield of barley, 20.77 bushels per acre; average yield of potatoes, 149 bushels per acre; average yield of roots, 199 bushels per acre; total yield of wheat, 18,261,950 bushels; total yield of oats, 10,629,513 bushels; total yield of barley, 3,183,602 bushels; total yield of flax, 247,836 bushels; total yield of rye, 48,344 bushels; total yield of peas, 33,380 bushels; total grain crop, 32,404,625 bushels; total yield of potatoes, 2,033,298 bushels; total yield of roots, 1,220,070 bushels; total cattle exported, 31,500; total hogs exported, 12,500; total hogs received by Winnipeg packers and butchers, 25,000; poultry disposed of by farmers—turkeys 47,540, geese and ducks, 20,000, chickens 184,055; value of dairy products, \$450,213.43; estimated expenditure on farm buildings, etc., \$985,310; number of rural school districts, 811; amount of Government grant per school, \$130.

Politics and Government.—The Greenway Government, which had been in power since 1888, had to face during the year the aggressive hostility of a new and popular leader of the Conservative Opposition, in the person of the Hon. Hugh J. Macdonald, son of the late Sir John A. Macdonald. The Legislature met for its third session on March 10, and

was opened by the Hon. J. C. Patterson, Lieutenant Governor, with the Hon. F. M. Young as Speaker. A good deal of legislation was enacted, including the following bills:

To amend the overholding tenants' act.

To amend the Manitoba evidence acts.

To amend the special survey act. Under the survey act provision is made, in agreement with the Dominion Government, to resurvey and fix the surveys of towns and villages in the province. The cost of these surveys is borne by the Federal Government.

To amend the mutual fire insurance act.

To amend the devolution of estates act. This amendment gives the administrators power to mortgage real estate in certain specified cases.

To amend the real property act. This amendment is to reduce the cost of Torrens titles obtained through tax sales.

To amend the liquor license act. The changes provide that during prohibited hours screens and blinds are to be removed from barroom windows. Provincial constables are also given power to search premises and generally to supervise the sale of liquor.

To amend the public schools act.

To amend the agricultural societies act.

To amend the executions act. Certain property was exempted under this act, but in case of a fire the insurance money might be garnisheed. This amendment exempts the insurance money.

To amend an act respecting life insurance.

To incorporate the Winnipeg and St. Andrews Railway. This act gives the promoters power to build a steam or electric railway from Winnipeg to St. Andrew's Rapids, on Red river; also to operate steamers and barges on Red river and Lake Winnipeg.

To incorporate the Mennonite Educational Institute at Gretna.

For better protection of dependent and neglected children. This provides that whenever a child is habitually neglected by parents or guardians, or is dependent upon the community, upon the application to a judge or police magistrate, he may order the child to be taken absolutely from its parents or guardians and given to a children's aid society. The society is thenceforth the guardian of the child with full powers, and may place the child in a foster home, or may take it away from such home and place it in another. Provision is made for the establishment of a central society, with an officer in Winnipeg, and for the formation of branch societies throughout the province.

Reducing the wolf bounty from \$2 to \$1. The bounty is paid by the municipalities.

To provide for better observance of the Lord's Day. This act, which occasioned more discussion than almost any other of the session, was considerably modified in the House. It prohibits all labor except work of necessity or charity. It prohibits all such amusements as are carried on in a building or inclosure where an admission fee is charged or where any gain is made by the players.

Respecting the Winnipeg and Fort Alexander Railway. This allows a company to build a railway from some near point on the Canadian Pacific Railroad to the navigable waters of Winnipeg river. The distance is about 40 miles.

To provide for the good sanitary condition of bakeshops.

To amend the charity aid act. The Government pays 87½ cents a day toward the keep of a patient in hospitals in the province. Lately a large number of patients from Ontario, Dakota, and Minnesota have been crowding the hospitals. This amendment only permits payment of the 87½ cents for patients domiciled in the province.

To amend the Legislative Assembly act. The seasonal indemnity is reduced from \$600 to \$500 a year.

To amend the municipal-hall insurance act. The qualification of voters under this act was fixed at \$300 worth of real property, instead of \$400 as formerly.

To amend an act respecting compensation to families of persons killed by accident. Under the original law if the administrator of a man killed by accident refused to enter an action for damages, there was no power for any one else to take up the case and prosecute. The amendment provides that in such an event the persons who would be benefited by the compensation may prosecute.

To incorporate the Central Canada Fire Insurance Company.

To amend the foreign corporations act.

Respecting aid to railways. This act provides for the building of 140 miles extension to the Dauphin Railway from Sifton station northward to Saskatchewan river, also the building of 80 miles from Winnipeg southeastward to a point near Whitemouth lake, as a part of a railway system to connect with Lake Superior. The aid in each case is the guaranteeing of principal and interest of the bonds of the company for thirty years at 4 per cent. to the extent of \$8,000 a mile.

To amend the noxious weeds act.

To amend the joint-stock companies' act.

Respecting aid to the Northern Pacific and Manitoba Railway. By this act the railway is granted the usual bonus always given to colonization roads of \$1,750 a mile to build an extension from Belmont to Hartney, 50 miles. Besides this, \$20,000 is given to assist in crossing a deep ravine at Lang's Valley.

To amend the public schools act. This empowers school sections in disorganized municipalities to sell lands for taxes just as if they were municipalities.

Respecting liens of mechanics, wage-earners and others. This generally consolidates and simplifies the act, and makes it easier for workmen to establish and enforce their lien.

To amend the game-protection act. The open season for prairie chickens is shortened so as to begin on Oct. 1, instead of Sept. 15, and close on Nov. 15, instead of Dec. 1. No person is permitted to shoot more than 20 prairie chickens in any one day, or more than 100 in the season. No one is permitted to have any prairie chickens in his possession fifteen days after the season closes. The close season for muskrats is to be from May 1 to Dec. 1, instead of from May 15 to Nov. 1. The killing of beavers is totally prohibited. Persons wishing to domesticate game birds or animals must secure a permit from the Minister of Agriculture. When the two years close season for deer expires on Oct. 1, 1898, the law of 1896 prevails, which provides that not more than two deer can be shot in a season by one person.

To amend the county courts act. In debts against traders the amounts received under execution must now be divided *pro rata* among the creditors, following much the same system that prevails in the Queen's Bench.

To amend the medical act.

The Legislature adjourned on May 4, 1898. The following paragraph from the speech of the Lieutenant Governor was the most important:

"I join with you in the feelings of gratification which every one of you must enjoy upon seeing the satisfactory results of the efforts of both my Government and that of the Dominion to promote immigration. The large influx of the most desirable class of settlers so far this year, and the pros-

pects for the remainder of the season, can not but have a great effect upon the business and trade of the province generally, and with a continuation of the good crops of recent years and a maintenance of the prices which the farmers have realized for the products of their farms during the past year, must place the province of Manitoba in the very front rank of desirable countries for incoming settlers."

The provincial Treasurer delivered his budget speech on April 5. The ordinary expenditure for the year was stated to be \$774,353, compared with \$761,635 in 1896. The receipts were \$683,705, or \$124,780 less than had been estimated. The estimated revenue for 1898 was \$900,035, and the estimated expenditure \$1,009,588.

Progress.—Perhaps nothing shows the development that is going on in Manitoba and the territories more directly than the sales of farm lands. All reports from the large land companies show a steady and rapid increase in land sales. The sales made by the Canadian Pacific Railway land department during 1897 were more than double those of the previous year. The largest sales were made during the last three months of the year, but the Canadian Pacific Railway land sales to the end of August this year aggregate more than were made for the whole of last year. The number of acres sold monthly by the Canadian Pacific Railway land department for the past three years was as follows. The total given for 1898 is to the end of August only:

MONTHS.	1896.	1897.	1898.
January.....	4,961	9,443	22,044
February.....	4,067	8,163	30,650
March.....	8,130	8,737	33,421
April.....	8,222	10,735	43,145
May.....	6,100	15,802	43,148
June.....	4,634	18,964	49,303
July.....	6,070	17,083	39,512
August.....	3,606	9,460	19,449
September.....	2,452	16,066	
October.....	8,038	25,273	
November.....	15,147	33,773	
December.....	16,457	20,938	
	87,678	199,481	270,572

Crops.—In 1895 the area under wheat, oats, barley, flax, potatoes, and roots was 1,887,796; in 1896, 1,614,221; in 1897, 1,958,025; and in 1898, 2,210,942. The official estimate of beef cattle in the province in June, 1898, was 7,901, and of milch cows 74,773. There were 35 cheese factories in operation. The crop was splendid, and the farmers came through the year with much financial benefit.

Railways.—For many years a standing grievance of the farmers of Manitoba against the Canadian Pacific Railway was the fact that they had to ship their grain through its elevators or else pay the elevator its regular charges whether the grain went via the elevator or not. In July the railway finally gave way and granted the privilege of loading grain directly into the cars from vehicles or platforms. In 1897 Mr. Greenway had conceived a project to connect Winnipeg with Duluth, Minn., by rail, and thus give the people competition with the Canadian Pacific Railway. The objection to this was in the introduction of American lines to Canadian business and the consequent transfer of Winnipeg traffic to the United States. Much opposition was raised, especially in eastern Canada, where large sums had been paid to build the Canadian Pacific Railway and to obtain the Manitoba market. Eventually the Manitoba Government found that it would be impossible to secure control of the rates on the proposed line and it was abandoned. In 1898 the Government took up and approved the Ontario and Rainy River road, giving connection with Ontario over Canadian territory.

Education.—The school population in 1897 was 51,178; the number of pupils registered was 39,841; the number of teachers was 1,197, of whom 601 were male and 596 female; the number of organized school districts was 1,018; the average teacher's salaries in towns and cities was \$533, and in rural districts \$484. The total receipts of the education department was \$825,774, and expenditures \$805,417. The school assets of the province were \$1,754,875, and the liabilities \$1,018,568.

Winnipeg.—The city of Winnipeg, which is the center of provincial life and activity, showed pronounced evidence of progress during the year. More than \$1,300,000 was spent in new buildings, and these in detail illustrate the activity of business. Messrs. Gordon and Ironsides did not erect their expensive *abattoir* in anticipation of a cattle trade to be brought into existence in the future; the reality was already there.

The *abattoir* was opened on Sept. 1, with great ceremony. It was built at a cost of \$100,000, with a daily capacity of 400 cattle, 500 pigs, and 500 sheep.

The elevators, factories, wholesale warehouses, and fine retail and office blocks that have been built are further proof of progress. So with the new schoolhouses, for which the ratepayers are expending large sums.

MARYLAND, a Middle Atlantic State, one of the original thirteen, ratified the Constitution April 28, 1788; area, 12,210 square miles. The population, according to each decennial census, was 317,728 in 1790; 341,548 in 1800; 380,546 in 1810; 407,350 in 1820; 447,040 in 1830; 470,019 in 1840; 583,034 in 1850; 687,049 in 1860; 780,894 in 1870; 934,945 in 1880; and 1,042,390 in 1890. Capital, Annapolis.

Government.—The following were the State officers during the year: Governor, Lloyd Lowndes;

Secretary of State, Richard

Dallam; Comptroller, P. L.

Goldsborough; Treas-

urer, T. J. Shryock;

Adjutant General,

A. L. Wilmer; At-

torney-General, H.

M. Claybaugh;

Superintendent

of Education, E.

B. Prettyman—

all Republicans

except Pretty-

man, Democrat;

Chief Judge of

the Court of Ap-

peals, James Mc-

Sherry; Associate

Judges, David Fow-

ler, A. Hunter Boyd,

Henry Page, Charles

B. Roberts, John P.

Briscoe, W. Shepard

Bryan, and James A.



LYLLOD LOWNDES,
GOVERNOR OF MARYLAND.

Pearce; Clerk, Allan Rutherford—all Democrats except Rutherford, Republican.

Finances.—According to the report of the Comptroller to the General Assembly in 1898 for the fiscal year ending Sept. 30, 1895, the balance in the treasury was \$704,568.19; for the fiscal year ending in 1896 the total receipts were \$3,156,875.64; total available cash for 1896, \$3,861,443.83; total disbursements, \$2,945,401.07; leaving balance in the treasury on Sept. 30, 1896, of \$916,042.76; receipts into the treasury for fiscal year ending Sept. 30, 1897, \$2,772,055.40; total available cash for the fiscal year of 1897, \$3,688,098.16; total disbursements for same year, \$2,980,959.58; leaving balance in treasury on Sept. 30, 1897, of \$707,138.58.

The receipts for the free-school fund were \$66,259.14, which, added to the balance on hand Sept. 30, 1896, of \$2,000, made \$68,259.14, a loss of \$3,796.22 as compared with 1896.

The total receipts for the sinking fund were \$627,404.18, all of which was invested in Maryland 3.65s, the par value of which was \$613,475. There was sold during the year from stocks and bonds belonging to the sinking funds \$74,000 of Frederick City 4-per-cent. bonds and \$161,000 of Baltimore City stocks, aggregating the par value of \$235,000, which, deducted from the par value of stocks purchased, left \$378,475 as the net par amount invested for the year, this sum exceeding that of 1896 by \$70,775. The sinking fund for the defense redemption loan aggregated \$3,494,245.05, as against \$3,204,770.05 for the year previous, being in excess of the loan by \$494,245.05. The loan matures Jan. 1, 1899.

The receipts for the oyster fund were \$66,783.90, which, added to the balance on hand in 1896, made the total receipts for the fiscal year \$67,270.73, an amount largely in excess of the ordinary receipts for the year previous, the increase being attributable almost solely to receipts from dredging licenses. The disbursements were \$66,761.97, leaving a balance of \$568.76.

Little change was made in the productive assets of the State, which aggregated \$3,430,584.14, against \$3,605,249.99 in 1896. The unproductive stock amounted to \$8,129,626.99.

The State debt at the close of the fiscal year of 1897 aggregated \$9,284,986.24. Deducting the productive assets of the State, as well as stocks and bonds to the credit of the sinking funds at their par value of \$6,335,908.11, left as the net debt of the State on Sept. 30, 1897, \$2,949,078.13, as against \$3,338,553.13 for the previous year, or a net reduction of \$389,475 for the year.

The assessed value of property for State purposes under the new assessment was \$607,965,272, an increase of \$67,503,525 over that of 1896. The increased basis in 1897 produced a corresponding increase in the amount of levy, the same being \$1,079,138.27, or an excess over the previous year of \$119,818.74. This increase was beneficial only for the purposes designated in the State levy, namely, schools, free books, and loans, and could not affect the revenues for ordinary expenses. One of the provisions in the new assessment law is the levying of a tax of $\frac{1}{4}$ of 1 per cent. on the income of mortgages, three fourths of such tax going to the counties in which the mortgages are to be recorded, and the remaining fourth going to the State. The provisions of this law increasing the franchise tax upon the gross receipts of all railroad companies whose roads are worked by steam, as well as upon other companies, have largely increased the revenue from this source, the sum of \$171,140.05 having been received during the year.

The receipts from the public-school tax were \$678,447.44; disbursements, \$496,224.69. The receipts for free school books for the year aggregated \$115,552.14; the disbursements, \$150,000, being the amount appropriated by law, regardless of what sum may be received from the levy of 2 cents, set apart for this purpose. The failure of the Legislature to provide a sufficient tax rate to meet this appropriation had produced in two years the deficit of \$120,818.08.

The revenue from the clerks of courts amounted to \$937,572.96; deducting from this amount the sums due Baltimore city from the sale of high liquor licenses, being three fourths thereof, together with the sums due the oyster fund, aggregating \$477,023.84, left the sum of \$460,549.12 applicable for the ordinary expenses of the State government.

The receipts from registers of wills amounted to \$120,184.33. The amounts paid in from collectors of State taxes aggregated \$1,019,631.76. Receipts from tax on the shares of capital stock of the various incorporated institutions in the State amounted to \$81,332.50. The gross receipts from tobacco warehouses amounted to \$78,541.66; disbursements, \$73,283.78. Receipts from licenses and taxes upon premiums paid by insurance companies and from the fire marshal amounted to \$139,069.82; from franchise tax on the deposits of savings banks and institutions, \$29,059.93.

Banks.—Among the total resources, \$19,530,414.19, of the 47 national banks in the State reported at the beginning of the year were: Loans and discounts, \$10,363,203.71; United States bonds to secure circulation, \$2,106,750; premium on United States bonds, \$148,994.18; stocks, securities, etc., \$2,261,889; real estate and mortgages owned, \$94,403.35; due from approved reserve agents, \$2,044,839.97; gold coin, \$384,568.98; total specie, \$713,960.53. Among the liabilities were: Capital stock paid in, \$3,746,700; surplus fund, \$1,667,675; undivided profits, less expenses and taxes paid, \$409,521.99; national bank notes issued, \$1,882,570; amount outstanding, \$1,818,370; due to other national banks, \$331,803.73; due to State banks and bankers, \$116,928.90; individual deposits, \$11,287,180.14.

Education.—The annual report of the State Board of Education gives the following statistics: Number of schools in Baltimore city, 188; in the counties, 2,266; total, 2,454, being an increase in 1897 of 65. Number of different pupils, city—90,996; counties, 138,951; total, 229,947, being an increase of 10,585. Number of teachers—city, 1,798; counties, 3,038; total, 4,836, being an increase of 220. Receipts from all sources—city, \$1,280,266.01; counties, \$1,298,380.49; total, \$2,578,646.50, being an increase of \$238,029.89. Amount paid for teachers' salaries—city, \$1,011,449.60; counties, \$861,722.01; total, \$1,873,171.61, being an increase of \$82,430.79. Total expenses for public-school purposes—city, \$1,404,543.56; counties, \$1,298,380.49; total, \$2,702,924.05, being an increase of \$52,658.46.

The counties throughout the State are said to be taking action toward an execution of the powers vested in them by the Legislature for the establishment of local libraries. Each of these libraries will, in a sense, be a branch of the State library. The financial plan upon which they are to be established is comparatively inexpensive. Before public money can be expended in the enterprise it is made necessary to submit the question to a vote in order that the people of the town may give expression to their preference, and the same right is extended to the county at large.

At a convention of the State Sunday-school Union Maryland was claimed as the "banner State" of Sunday-school unions. There were reported 250,000 pupils, 25,000 teachers, and 2,600 schools.

Fisheries.—In 1896-'97 the Fish Commissioners propagated at the hatcheries and distributed to different parts of the State more than 136,000,000 fish, including shad, perch, trout, bass, and carp. The area occupied by oyster beds in Chesapeake Bay was estimated at about 200 square miles. While 1897 was noted for an immense catch of oysters, there was a serious depression in prices. The report of the Commissioners of Fisheries says: "The diamond-back terrapins for which Maryland has long been famous are now in great danger of becoming extinct. The price for them has become so extravagant that none except the wealthy can indulge in the luxury of eating them, and yet the numbers are so few that they are not the source of any considerable revenue to the people of the State."

Penitentiary.—At the close of 1897 there were 855 prisoners in the Penitentiary; during the year 412 were admitted and 325 discharged. The prisoners were profitably employed under the various contractors, the percentage of non-productive inmates being only 8½. The prisoners earned for themselves by overwork \$23,722.83. The net earnings of the institution amounted to \$27,871.84, a gain of \$10,147.49 over the previous year. The cost *per capita* for the support of the prisoners for the year was \$97.38½, the smallest in the history of the prison. For the erection of new buildings \$405,709.66 was expended, and \$143,695.33 for the purchase of ground.

Exports and Imports.—It is officially stated that the year 1897 "was the greatest ever known in the history of the export trade of Baltimore." During the year there were exported 15,178,649 bushels of wheat, 42,692,087 bushels of corn, 3,418,669 bushels of rye, 5,244,164 bushels of oats, and 2,287,130 barrels of flour. In addition to the great increase in the breadstuff trade there were notable gains in the trade in lard, provisions, glucose, copper, lumber, and tobacco. The imports for the year amounted to \$11,107,467. Receipts at the customhouse were \$228,711. During the year 1,023 vessels sailed for foreign ports, carrying 1,656,928 tons of cargo; for coastwise ports, 2,138 vessels, with 2,143,104 tons of cargo.

Coal and Tobacco.—The total output of coal of the various mines was 3,931,929 tons. The crop of tobacco was 34,873 hogsheads, the medium and better grades selling at 13 and 14 cents per pound.

Industries.—There were 32,556 farmers in the State, tilling an area of 9,382 square miles. Outside the city of Baltimore there were 5,016 manufacturing establishments, including 737 flour mills, 239 fruit-packing houses, 389 sawmills, 89 oyster-packing establishments, 146 carriage and wagon factories, and 201 dairies. In Baltimore alone there were 990 factories, employing about 100,000 hands, whose aggregate wages per annum were \$42,000,000; capital invested, \$120,000,000; value of output per annum, \$175,000,000. Baltimore's shoe business was estimated at about \$20,000,000; the millinery trade approximated \$3,000,000; hats and straw goods, \$2,000,000; canned articles, \$7,000,000 in Baltimore and \$3,000,000 outside. Over 160 incorporations for business enterprises were recorded during the year in the city, 133 of which were for mercantile, manufacturing, and various trade purposes, the aggregate capital invested being \$5,490,000. The remaining 27 corporations, with a capital of \$44,111,100, were building and savings associations, etc.

Water Ways.—But little work was done in the improvement of the rivers and harbors of the State. In November the Board of Public Works decided to sell all the interest of the State in the Chesapeake and Ohio Canal, which had cost the State about \$25,000,000. It is said that this action was taken for the purpose of enabling the Baltimore and Ohio reorganization managers to obtain a title to the property and to use it in connection with their system. The canal extends from Georgetown, D. C., along the banks of the Potomac to the Cumberland, and is the oldest of the great interior artificial water ways planned in this country in the early part of the century. It was for more than half a century the main public work of Maryland and was built almost entirely by the State.

Game.—The effort to introduce foreign quail into the State has proved a failure. Many birds were imported from the Scilly Islands and from China and liberated in the State, but all have disappeared. The failure of the foreign quail propagation was followed by success in the introduction of American birds. Thousands of partridges from

North Carolina have been loosed in the State during recent years, and reports to the Game and Fish Protective Association indicate the success of the experiment.

San José Scale.—The State entomologist reports that since the first discovery of this pest in Maryland in 1894 the scale "has become established in 18 of the 23 counties of the State, representing 58 localities and involving 95 premises." In the infested orchards, containing 157,165 trees, 58,620 trees were affected, and 50,348 of the latter had been killed in the past four years, leaving 8,277 infested among 106,823 bearing trees. In addition, 21,577 nursery trees had been destroyed.

Boundary.—The disappearance of the monuments marking the boundary line between Maryland and Virginia through Pocomoke Sound and river, and the consequent uncertainty as to the true location of the boundary, has for several years been a source of friction between the citizens of the two States and an embarrassment to the fisheries. In 1897 the Governor appointed a commissioner on the part of the State, to act with a similar commissioner of Virginia in having this boundary line remarked, and the work was duly completed, the cost to be borne equally by the two States.

Lynching.—In his message to the General Assembly the Governor said: "There have been three cases of lynching in Maryland during my administration as Governor. In all these cases the persons accused or suspected of crime were taken from the custody of the proper officers of the law. In the first no indictment had been found; in the second there was an indictment and the case ordered to be removed for trial to another county; and the third, notwithstanding the fact that the prisoner had been speedily tried, convicted, and sentenced, he was taken, in open day, against the entreaties of the judge who had just condemned and sentenced him, and killed by an infuriated mob, in defiance of all decency and law, at the very door of the courthouse. The latter was the only one out of the three where the prisoner was charged with that crime the commission of which has been held by some to be a justification for such violence. . . . Lynchings constitute murder, pure and simple, and no legislation could more clearly define the crime or prescribe the punishment. And yet it seems impossible to secure even a presentment against those who thus set the law at defiance. If a law could be passed placing upon the county in which a lynching occurs some heavy pecuniary penalty, it might help to create public sentiment against this crime which would bear fruit in the choosing of officers who would use intelligent and courageous efforts to protect their prisoners and discover and prosecute these offenders against law and order."

Legislation.—Among the bills passed by the General Assembly were the following:

To appropriate \$50,000 for two years to Johns Hopkins University.

For the education of women to teach in the public schools by providing free scholarships in Western Maryland College, and appropriating \$65,000 per annum additional for that institution.

Providing for a uniform law for promissory notes and other negotiable paper.

Requiring foreign corporations doing business in the State to file their charters here.

To authorize the Mayor and city council of Baltimore to issue bonds for \$5,000,000.

To protect the wife from the debts of her husband.

To limit the hours of labor employees of Baltimore, except firemen and policemen, to eight.

To provide for teaching the principles of civil government in the public schools.

Providing for fourteen free scholarships at Washington College.

Appropriating \$12,000 for the Antietam Battlefield Commission to locate positions of Maryland troops on the field and to erect a monument.

Political.—The total vote cast at the State election in November but slightly exceeded 200,000, against 250,000 cast at the presidential election in 1896. While the Republicans lost the city of Baltimore by 569 votes, they carried the State outside of the city by 5,898 votes.

MASSACHUSETTS, a New England State, one of the original thirteen; ratified the Constitution Feb. 6, 1788; area, 8,315 square miles. The population, according to each decennial census, was 378,787 in 1790; 422,845 in 1800; 472,040 in 1810; 523,159 in 1820; 610,408 in 1830; 737,699 in 1840; 994,514 in 1850; 1,231,066 in 1860; 1,457,351 in 1870; 1,783,085 in 1880; and 2,238,943 in 1890. By the State census of 1895 it was 2,500,183. Capital, Boston.

Government.—The following were the State officers in 1898: Governor, Roger Wolcott; Lieutenant Governor, William M. Crane; Secretary of State, William M. Olin; Treasurer, Edward P. Shaw; Auditor, John W. Kimball; Attorney-General, Hosea M. Knowlton; Secretary of the Board of Education, Frank A. Hill; Adjutant General, Samuel Dalton; Secretary of the Board of Agriculture, W. R. Sessions; Insurance Commissioner, Frederick L. Cutting; Chairman of the Railroad Commission, John E. Sanford—all Republicans; Bank Commissioner, Warren E. Locke; Chairman of the Board of Lunacy and Charity, Leontine Lincoln; Greylock Reservation Commissioners, T. W. Rockwell, John Bascom, and Alfred B. Mole; Chief Justice of the Supreme Court, Walbridge A. Field; Associate Justices, Oliver W. Holmes, Marcus P. Knowlton, James M. Morton, John Lathrop, James M. Barker, John W. Hammond; Clerk, Henry A. Clapp; Judges of the Court of Registration created by the land transfer act of 1898, Leonard A. Jones, Charles T. Davis; Recorder, Clarence C. Smith.

Finances.—According to the Treasurer's report for 1898, the cash on hand Jan. 1, 1898, was \$10,206,772.61; cash on hand Dec. 31, 1898, was \$10,695,670.98. There was received during the year from the collateral legacy and succession tax \$563,672.34 and \$8,422.98 for interest on overdue taxes.

Loans were issued in 1898 to the amount of \$8,227,500, bearing interest at the rates of 3 and 3½ per cent.

The Treasurer discusses at length the expenses consequent upon the war with Spain. The number of men on the rolls Dec. 31, 1898, entitled to State pay, etc., was more than 11,400. The total amount paid the soldiers or their dependents up to Jan. 18, 1899, was \$334,943.30.

The Governor's message says the net debt has increased more than threefold in four years.

Education.—Smith College received an anonymous gift of \$50,000; Mount Holyoke, \$100,000 from Charles F. Wilder, and \$50,000 from D. K. Pearson, which was conditioned on the raising of an endowment fund of \$150,000, which is now complete. Harvard College received \$500,000 by the will of Edward Austin, who also left the Massachusetts Institute of Technology \$400,000 and Radcliffe College \$30,000.

The Massachusetts Institute of Technology receives a national distinction in the transfer to it from Annapolis of the new course in naval architecture recently established at the latter place. This is an attempt to give as sound technical training to certain cadets, after they have been graduated at Annapolis, as that which has been given in foreign countries, particularly in England.

A radical change has been made in the regulations governing the students of the law school, Boston University. The change is in the entrance requirements, which affect also the students that entered under the old *régime*, who will be compelled to pass an extra examination in the entrance requirements, or present satisfactory certificates from recognized schools, stating that the student is proficient in the studies specified in the change before they can receive the LL. B. degree.

The principal changes in the requirements that have been made are in English, Latin, and mathematics.

Kingston has a new public library bearing the name of the giver, Frederic C. Adams. It was dedicated Aug. 4.

Charities and Corrections.—The State Board of Insanity, provided for by the Legislature this year, was formed in September, the Governor having appointed as members Dr. George F. Jelly, for five years; Dr. Herbert B. Howard, for four years; Dr. Charles R. Codman, for three years; Edward S. Bradford, for two years; and Francis B. Gardner, for one year.

The Woman's Relief Corps of the State dedicated a new dormitory at the Soldiers' Home, Nov. 9, and at the same time gave to the Home a marble bust of Gen. Horace Binney Sargent.

The report of the Prison Commissioners for 1897 shows that the cost of support was \$143,639, and the cost *per capita* was \$174.53, while in 1896 it was \$181.61. The net profits derived from industries of convicts were reduced by \$23,197.25. There has been a constant increase in the population of the prison during the year. At the date of the last report there were 796 prisoners. One hundred and ninety-seven have been committed by the courts, and one has been returned by the revocation of his pardon. One hundred and twenty-eight have been discharged by expiration of sentence, as shortened by deductions for good conduct; 14 have been removed to the lunatic hospital; 9 have been released on parole by the commissioners; 6 have died; 4 have been pardoned; 4 have been removed to the State farm, and 3 have been transferred to the Massachusetts Reformatory—leaving at the present time 826 inmates.

The Attorney-General, in his report, says: "The number of capital cases requiring the attention of this office, or of the District Attorneys, though greater than in the two years next preceding, is less than the average of recent years. The assertion has often been made that the crime of murder is increasing in this Commonwealth. I believe that statistics show this to be untrue. The number of indictments for murder in proportion to the population of the Commonwealth has decreased, rather than increased." The largest number of indictments for murder since 1875 was 27, in 1881; the smallest, 8, in 1896. There were 14 in 1897.

Military.—The number of men in the National Guard at the beginning of the year was about 8,500. The following, on the part of the State in the war with Spain, is from the Boston "Journal": "On land and sea, it is a matter of official record that Massachusetts has given more men to this war than any other equal population in the Union. We have had 3 of our 5 volunteer regiments actually in the field—a proportion which no other State can equal. We have sent thousands of men into the regular service. Afloat we have gloriously maintained our traditions. The nation has received our entire naval brigade of 500 officers and men, and another battalion has been recruited and held in reserve. Fifteen hundred Massachusetts seamen have enlisted in the regular navy at the Charlestown Navy Yard and 450 more at Gloucester. There is

not a ship in the service on which Bay State men are not to be found. Their numbers and quality are suggested by the circumstance that five of Hobson's seven comrades on the 'Merrimac' joined the service from within our borders. Two legislative appropriations have placed a war fund of \$1,500,000 at the disposal of the Governor. Out of this fund a local defense of the State's coast line was quickly extemporized, and the Massachusetts troops have been sent into the service with a complete equipment for health and comfort which evoked the admiration of the War Department."

From an address by the Governor in October are taken the following additional data: "Under the first and second call Massachusetts furnished 6,988 men, and in the signal corps and regulars about 1,500 more, making a total of 8,500. In the naval brigade about 600, and in the navy and marine corps about 2,000, bringing the total in the army and navy up to 11,000 men. Out of that sum of \$500,000 placed in my hands for expenditure at my discretion, the sum of \$307,000 has already been paid out, chiefly for arms, equipment, pay allowance, subsistence, and clothing. The Legislature of Massachusetts, with wise generosity, provided that for all soldiers of Massachusetts, whether enlisting in the volunteer service of the United States or in the regular service, whether on land or afloat, the Commonwealth would supplement the payment made by the United States Government by a monthly payment of \$7. Under this generous policy over \$210,000 has already been paid from the treasury of the Commonwealth. Not only that, but it provided that upon the death of a soldier this monthly payment of \$7 should be continued after his decease. The Commonwealth has also made provisions for hospital treatment for all soldiers of the Commonwealth in whatever hospitals they may have been received, and in cases where the condition of the family is such as to make it necessary, it aids also in the final solemn rites of burial. Two hundred and fifty thousand dollars has been placed in the treasury of the Volunteer Aid Association without personal solicitation. The Legislature gave me authority to spend \$50,000 in the purchase of a ship that should be equipped as a hospital and relief ship to follow our brave soldiers to Cuba or to Porto Rico, and to carry to them aid and relief and comfort and supplies, and to bring back those broken down by wounds or sickness. That vessel has performed a most beneficent work." Massachusetts lost 298 men in the service, only 9 of whom, it is stated, were killed in battle.

Cattle.—The number of cattle paid for as tuberculous during 1897 was 5,275, and the amount paid for them was \$179,867.52. More than \$5,500 was paid for 160 animals in which no lesions of tuberculosis were found. Quarantine killing and burial expenses and arbitration brought the average amount paid for condemned cattle up to \$34.12 per head.

Insurance.—The commissioner's report has the following on assessment companies: "Following the passage of the general assessment law of 1877, 62 assessment companies were almost immediately organized. Every one of them has now departed, some going in infancy, some in childhood, while only two lived to be of much consequence, and both of these are now having their bankrupt estates administered upon by order of the court. Their beneficiaries will receive perhaps 25 per cent. of their claims, while their old or feeble members, whom no company would now insure, are left desolate, all their fond hopes, that when life for them should cease something would be left to their dependents, being dashed to earth. Many of these people feel that they have been deceived—nay, robbed without

conscience. Some blame the companies' managers, while others, who look beyond the instruments to the system, hold the Commonwealth of Massachusetts responsible, because it set its seal of approval upon laws which authorized, under the name of life insurance, the easy organization of companies with such elements of weakness and uncertainty."

Banks.—According to the annual report of the State Board of Savings Banks, the amount of money deposited in such institutions in 1897 was \$82,814,012, an increase over the preceding year of \$3,897,482, and this aggregate sum deposited is larger than that of any one of the ten years preceding. The amounts deposited averaged \$66.34 to each deposit made, an increase of \$1.92 over the average of last year. The total amount withdrawn from the banks during the year was \$79,334,807.88, or \$2,413,388.02 less than the sum withdrawn in the year preceding. The report relates to 187 savings banks and institutions for savings, with assets of \$503,973,934; 34 trust companies, with assets of \$134,294,237, and 2 trust companies and 4 savings banks in the hands of the court. The total amount of dividends declared was \$17,335,519, an increase of \$500,511 over last year.

Fisheries.—A report on the fisheries of Massachusetts recently issued by the Bureau of Labor Statistics furnishes further evidence of the decline of the industry. This is ascribed to the scarcity of the finer fishes, such as the mackerel, the halibut, and the bluefish, due, according to some observers, to their reckless and wasteful pursuit. The number engaged in the fisheries in 1895 was 11,093, compared with 11,743 in 1885. The working capital declined from \$7,652,089 in 1885 to \$4,488,564. The value of apparatus employed was \$725,152 in 1885 and \$599,267 in 1895. Measured by value, the total catch of 1895 was considerably less than in 1885, largely due to the exceptionally small haul of mackerel in 1895. Measured by quantity, the 1895 catch was the larger. The greatest falling off is in mackerel. From 1886 to 1894 the number of barrels of pickled mackerel inspected at Boston and Gloucester averaged fewer than 60,000 a year. For the twenty-five years previous to 1886 the number of barrels averaged about 200,000 a year. From 1820 to 1886 the number varied from 110,000 to 338,548. The catch of haddock in 1895 was more than double that of 1885, and the same is true of herring, while the cod catch rose from 77,729,196 pounds in 1885 to 81,092,958 in 1895. During the same period the oysters dredged fell from 86,964 to 71,222 bushels, and the lobsters caught from 3,376,724 to 2,119,587 pounds. A report from Gloucester says that during the year ending Dec. 6, 1898, 49,952,000 pounds of fresh fish were landed there, and 47,207,000 pounds were landed in Boston.

Labor Interests.—Reductions in wages in January caused strikes among mill operatives all through the State as well as throughout New England. The reductions amounted to about 10 per cent., and were estimated to affect 125,000 persons in about 150 mills. New Bedford, Fall River, and Taunton were specially affected by the strike. The strike council at New Bedford issued an appeal, March 17, in which was said: "Nearly nine weeks have gone by since the inauguration of the strike, funds have long since become exhausted, while contributions on behalf of the strikers have not averaged more than 25 cents per head per week. The suffering has become intense, while applications for relief to the Poor Department have increased sevenfold. A mutual levy of 25 cents per week upon every textile worker of New England, whose battle we have fought and are fighting, would place us beyond the reach of actual starvation. The strikers are just as firm, just as determined, and just as

resolute to-day as the day they quit work. There is no break, no dissension in their ranks, but it is mutually agreed by those in want and those yet beyond the reach of actual want that we must have far more substantial sympathy and support or we must acknowledge defeat." The city gave employment to many of the strikers and supplies to families in want.

There were strikes among brickmakers at East Brookfield, street-car employees at Haverhill, and lasters at Brockton, Rockland, Middleboro, Avon, East Weymouth, Stockton, and other towns in the southeastern part of the State, lasting about six weeks and ending without material benefit to the workmen, as it appears.

Centenary of the Statehouse.—The Legislature celebrated the hundredth anniversary of the day when the Commonwealth took formal possession of the Bulfinch Statehouse on Beacon Hill, Jan. 11. "It was at noon, exactly one hundred years ago, that Gov. Increase Sumner, Lieut.-Gov. Gill, President Samuel Phillips, of the Senate, and Speaker Edward H. Robbins, of the House, headed the procession which marched from the Old Statehouse on Washington Street, the colonial structure surmounted by the lion and the unicorn, and in solemn file and dignified tread wended their way to the new building crowning Beacon Hill. The exercises of occupation included a speech by Gov. Sumner, and those of the 12th included an address by Gov. Wolcott. The noteworthy dates in the history of our Statehouse are these: July 4, 1795, when the cornerstone was laid; Jan. 11, 1798, when the formal opening was had; 1853, when the Bryant addition was constructed; 1866, when the Washburn changes were made; 1896, when the late repairs were instituted; and to-day, when we celebrate the centennial."

Legislative Session.—The General Court convened Jan. 5, and was prorogued June 23, after the longest session since 1894. George E. Smith was President of the Senate and John L. Bates Speaker of the House. The Legislature enacted 580 bills and 119 resolves, and of these 580 acts and 111 resolves were signed by Gov. Wolcott and 2 measures were vetoed.

In order to secure more equitable assessments of personal property, the Tax Commissioner was authorized to appoint a deputy to inspect the work of local assessors, and require them to make such changes as will tend to produce uniformity in valuation and assessment in the State.

Provision was made for review of municipal expenditures; certain number of real-estate owners of any city, town, or county may by petition require a justice of the Superior Court to investigate alleged unlawful expenditure of public money.

The general act relating to negotiable instruments, which was recommended by the national conference of commissioners in 1896, was adopted as the law of Massachusetts.

The law relating to elections was revised and consolidated. Nomination of candidates is to be by majority instead of plurality vote. Those voting at a caucus of one party can not vote in a caucus of another within twelve months, instead of the same calendar year, as formerly. No warden, clerk, or inspector may be an employee of the State, county, or city, a member of a ward or town committee, or a candidate before the caucus. Ballots must be counted within 3 feet of the rail. Cities and towns may use voting machines approved by the State Treasurer, Auditor, and Secretary, and on petition of 50 voters of any party in a town or ward they must be used in caucuses. The law relating to a particular voting machine was repealed.

The settlement laws were so revised as to make

settlements wholly or partly acquired before 1860 of no effect; and settlement is lost by absence from the State for ten years in succession. Formerly a settlement acquired since 1794 remained good, and descended from father to son; so that one who had never lived in the State might claim a settlement if his ancestors had gained one. Residence of five years and payment of all taxes for three years are now required to obtain a settlement.

The Torrens system of land registration was adopted. The Governor and Council are to appoint a court of registration and a State recorder of registration. The court is to consist of two judges and have original jurisdiction over all applications for registrations of titles.

It was provided that when the machinery in a factory is stopped for any cause, and women and minors have been obliged to stay in the workrooms during the stoppage, they shall not lose pay for the time nor be required to make it up without extra compensation. The law relating to employment of minors was generally amended. The law providing for the weekly payment of wages was made to apply to all manufacturers, instead of only to those having as many as 25 employees. The Labor Bureau is to investigate Sunday labor in the State, and also the subjects of profit-sharing and industrial insurance.

A report was received from the committee appointed in 1897 to investigate the relations of street railways to cities and towns, and a law was passed embodying most of its recommendations. A special tax was imposed upon the profits of roads paying dividends of more than 8 per cent., and which have paid dividends since they began operations equivalent to 6 per cent., and also a tax on gross receipts from 1 to 3 per cent. Street railways are to come under the supervision of the State Railroad Commissioners.

Some additions were made to the militia laws: Volunteers are to give seven days of camp duty each year, temporary enlistments and provisional companies were provided for, and the commander-in-chief was permitted to form additional companies of naval militia, not exceeding four.

The game laws were so amended that wild deer may not be hunted before Nov. 1, 1903; and the open season for scoters is to begin May 20, instead of April 15.

A general law was passed for the incorporation and regulation of fraternal beneficiary insurance associations. Fire insurance companies are not to be liable for more than the value of property when burned; if the insurance is greater, the premiums on the difference are to be refunded with interest. Provision was made for insurance against loss by bombardment. The law limiting the amount a company may insure in a town or fire insurance district on property other than dwellings and farm buildings and contents was repealed.

Laws in regard to convicts authorize the General Superintendent of Prisons to establish a camp for 100 prisoners, who are to be employed in reclaiming the land and preparing material for roads; he is also to employ inmates of the reformatories and jails in the same way; and goods are to be made for use in State and county institutions by convicts under his direction. The laws in reference to releasing convicts on probation were amended. The Governor may grant a conditional pardon to a convict upon his petition, if he has served half his sentence and has kept all the rules of the institution.

It was enacted that the death penalty shall hereafter be inflicted by electricity, and \$7,500 was appropriated for a building for the purpose at the State Prison.

It was enacted that declarations of deceased persons are not to be excluded from evidence as hear-

say if they were made before the beginning of the suit, and upon personal knowledge of the declarant. A probate court may appoint a conservator of the property of any person unable by reason of advanced age to care for it, upon petition of such person or of one or more of his friends. A probate court may also authorize a special administrator to do such acts as the interests of the property or estate may require. A bill providing for a war loan of \$1,500,000 became a law. The bonds are to run thirty years, and to bear interest not to exceed 4 per cent., payable semiannually. The money was needed to pay bounties authorized for Massachusetts volunteers, and for other expenses on account of the war. Another act appropriated \$50,000 for a hospital ship.

An appropriation of \$25,000 was made for making Greylock mountain a State reservation.

A resolution granting woman suffrage was debated at some length, but when it came to a vote there were not enough of the friends of the measure to demand a rollcall. Twice the opportunity was given for those who wished a yea and nay vote to express themselves. It required 30 votes, and on each occasion only 29 rose.

Among other enactments were the following:

Empowering cities and towns to construct bicycle paths and appropriate money for the purpose.

Establishing a State board of insanity of 5 members, to be appointed by the Governor and Council.

Making the officers of corporations jointly and severally liable for debts contracted before the original capital is fully paid in and the certificate of payment properly filed.

Allowing associations not for profit to change their purpose of incorporation.

Prohibiting the use of trading stamps.

Requiring records of religious societies to be deposited with the town or city clerk after meetings have been discontinued for two years.

For exterminating the brown-tail moth.

Declaring advertisements on fences, etc., without consent of the owner or tenant, public nuisances, which may be abated by any person.

Providing that no loans of less than \$200 at an interest greater than 12 per cent., secured by mortgage on personal property exempt from attachment or by assignment of wages, shall be made without a license; the license board is to fix rates and may revoke the license.

Amending the law regulating the sale of poisons, adding carbolic acid to the list, and prohibiting the sale of cocaine without a physician's prescription.

Providing that corporations having deposits to the credit of any pauper shall give information to the poor officers.

Prohibiting the employment of other than citizens of the State in the making and repairing of State roads.

Allowing cremation of the bodies of the dead.

Giving the right of way to fire engines and carts in cities and towns when going to fires, and providing fine and imprisonment for obstruction.

Making persons and corporations liable in damages for not less than \$500, or more than \$5,000, for negligence resulting in the death of a person not in their employ.

To provide an equitable process after the giving of a judgment based on necessities of life supplied to a debtor.

Prohibiting a married woman doing business on her own account from carrying on business in the name of her husband.

Amending the law relative to exemption of property of soldiers and their wives, and extending it to widows of soldiers. The exemption of any one family is not to exceed \$2,000, and the combined

property of a family claiming exemption not to be more than \$5,000.

Amending the law for preventing spread of contagious diseases among domestic animals; the work is to be hereafter performed, so far as possible, and the appropriations therefor expended, by the local inspectors acting under direction of the Board of Cattle Commissioners.

Political.—The annual report of the political proceedings of the State Advisory Board of the American Protective Association was published in February. Following are excerpts:

"The political interest and activity of our members have not diminished since our last report. Our large representation in the General Court has been maintained. All candidates seeking our support for office were informed that, while we antagonize no man on account of race, color, or religion, yet we do stand for separation of Church and state, no public funds for sectarian purposes, and restriction of immigration. Suitable candidates in sympathy with these principles received our hearty support.

"The political board of Boston was much stronger than in previous years. Every ward was represented in its composition, the attendance at its meetings beating former records. This board refused to indorse any candidate in the canvass for the nomination for Mayor, or to support either candidate as a body at the polls.

"Our representation in Congress has increased since our last report.

"We commend our membership for conducting their work quietly, without ostentation, and for not seeking notoriety in the public press. We have endeavored not to inject a turbulent spirit into any party or parties, but it is our purpose to stand steadfastly by the principles herein referred to."

State officers were chosen at the election, Nov. 8, as well as members of Congress and of the Legislature. There were five tickets in the field: Democratic, Republican, Socialist-Labor, Prohibition, and Socialist-Democratic.

The Democrats met in convention at Worcester, Oct. 4. The advocates of free coinage of silver were in control, and John W. Corcoran, a member of the National Democratic Committee, who is not in sympathy with his party in the State on that question, was removed. The platform, declaring for free silver, said: "The futile policy of the Republican administration in sending a commission to Europe to secure international bimetalism, and at the same time in thwarting and bringing to naught every effort of that commission, and in making its success impossible, has revealed the predetermined purpose of the Republican party to violate its pledges to the American people, and to prevent bimetalism in any form, not only in the United States, but throughout the world."

Opposition to imperialism was declared, and the conduct of the war was criticised as follows:

"The military administration during the recent war has been a stigma on the history of the republic and a disgrace to civilization. The army which sprang into existence has been made the prey of incompetents and favorites, who have fattened on the sorrows of American soldiers. The brave young men who fought our battles in the West Indies were left without adequate food, medicines, or surgical assistance; they were deprived of the abundant provisions which a generous and patriotic people had made for their support and encouragement. They were obliged to perform menial services under intolerable hardships. They were put under incompetent commanders, and were left to suffer and die with undressed wounds and burning fevers. And hundreds of their comrades who have

returned alive have come back emaciated and ghostly, to stagger through the streets as living witnesses against those who are responsible for their sufferings. We demand that a thorough investigation by Congress, not by an Administration committee organized to acquit, shall expose the guilty and drive them mercilessly from the office which they have disgraced."

Further, the resolutions denounced the Dingley tariff law and the new internal revenue tax law; favored public ownership of street railways, waterworks, plants for electric lighting, gas plants, plants for heat and the distribution of power, and for the service connected therewith.

On State issues they demanded State supervision of telephone companies; suggested that the nomination of candidates for Congress, members of the Governor's Council and the General Court be made by a direct vote in the caucuses; demanded reconstruction of State commissions and election of United States Senators by direct vote of the people and favored direct legislation.

The platform also favored the adoption of the initiative and referendum, eight hours as a legal day's work, technical and industrial schools, and a ship canal across Cape Cod.

The candidates were: For Governor, Alexander B. Bruce; Lieutenant Governor, Edward J. Slattery; Secretary of State, Henry Lloyd; State Treasurer, Pierre Bonvouloir; Auditor, Dr. Charles F. Parker; Attorney-General, Patrick H. Kilroy.

The Republican State Convention, at Boston, Oct. 6, asserted in its resolutions that the demand in the last national platform for a vigorous foreign policy had been fully discharged in the war just ended; renewed allegiance to the St. Louis platform; commended the Dingley tariff law; praised President McKinley in peace and war; eulogized the deeds of the army and navy; approved the President's action in demanding a thorough investigation of the War Department; asserted the necessity for a larger regular army, a reorganization of the National Guard, a larger navy, and better coast defenses.

The money plank was as follows:

"We affirm anew our support of sound money. True to the pledge of the St. Louis platform, the President and Congress, earnestly and in good faith, strove to secure an agreement of the great commercial nations for the coinage of silver and gold at an established ratio. The attempt has utterly failed. All our currency must rest upon the single gold standard. Every dollar must be kept equal in value to the dollar in gold. All Government indebtedness which, by the terms of the contract, is payable in coin must be paid in gold at the option of the creditor. We rejoice in the defeat of the Teller resolution in a Republican House of Representatives as the repulse of an attack upon the integrity of our monetary system and the fair fame of the republic.

"The time has come for the reform of our currency in the direction of the ready conversion of its different forms, each into the other, and the redemption of all in gold upon demand, with adequate provision for the extension of banking facilities to the agricultural and sparsely settled portions of the country, to the end that in those sections capital may be responsive to the demands of business, and lower rates of interest prevail."

On a foreign policy the platform said: "The war with Spain, undertaken by the United States from the highest motives, has been justified in the intelligence and compassion of mankind. Our brilliant victories have brought us solemn obligations and grave responsibilities, for we can not, in the interest of honor, humanity, or civilization, return to Spain

the peoples whom we have freed from her tyranny. While we would not interfere with the diplomatic negotiations now in progress, we desire that they be so conducted and terminated as to secure to the Philippine Islands and to Cuba in amplest measure the blessings of liberty and self-government.

"The building of the Nicaraguan Canal, controlled and operated by the United States, is now imperative. Our possessions in the Caribbean Sea, the annexation of Hawaii, our position in the Philippine Islands, and the notable voyage of the 'Oregon,' have made its necessity clear to all."

The platform favored restricted immigration to the extent of "requiring of the intended immigrant that he be able to read and write."

Any action that will imperil the North Atlantic fisheries was protested against.

The State administration was commended, and the State officers renominated, as follows: for Governor, Roger Wolcott; Lieutenant Governor, W. Murray Crane; Secretary of the Commonwealth, William M. Olin; Treasurer and Receiver General, Edward P. Shaw; Auditor of Accounts, John W. Kimball; Attorney-General, Hosea M. Knowlton.

The Republicans elected their State ticket, but with smaller pluralities than in 1897. The vote for Governor stood: Wolcott, Republican, 191,146; Bruce, Democrat, 107,960; Shapleigh, Prohibitionist, 4,734; Peare, Socialist-Labor, 10,063; Porter, Socialist-Democrat, 3,749.

The Executive Council consists of Nathaniel F. Ryder, William W. Davis, George N. Swallow, Horace H. Atherton, S. Herbert Howe, M. V. B. Jefferson, and Perley A. Russell, Republicans, and Charles I. Quirk, Democrat.

The Legislature stands: Republicans in Senate, 33; in House, 165. Democrats in Senate, 7; in House, 65. Independents in House, 10.

Of the Representatives elected to Congress, 10 are Republicans and 3 Democrats.

Municipal elections were held Dec. 6 in 16 of the cities of the State. Reports say: There were some surprising changes in the license vote in some of the cities, notably in Holyoke and Lowell. Last year Holyoke went "yes" by over 1,400 majority, but this year it declared for license by a bare 69. In Lowell the license majority last year was a little less than 200, but this year the city falls into the no-license column, and elects a Democratic mayor. Holyoke itself went over solidly into the Republican column, electing a Republican mayor, and Lynn's new mayor is a Republican. Salem and Everett voted no license. Haverhill has a Socialist-Democrat a mayor. Woburn elects an independent Republican over Republican and Democrat, and comes to the no-license line. Chelsea re-elects Mayor Littlefield, and sticks to no license. Cambridge votes for no license by an increased majority.

The only change in the license policy is in Lowell, where it is from "yes" to "no."

The Socialists showed their strength in Worcester, where they piled up a vote of over 900, and in Lynn they cast 300 votes even against Mayor Ramsdell, who has been considered as in sympathy with their views.

In Boston the license vote fell away remarkably. While the "No" kept steadily up to its figures of last year, the "Yes" fell off, and the majority of last year was cut down by a very material percentage.

METALLURGY. Iron and Steel.—Bog-iron ore is extensively worked in the province of Quebec, Canada, and arrangements are being made to extract manganese from the bog-ore deposits in New Brunswick. The ore is a soft wet stuff, containing 50 per cent. of water, and is covered by a thin coating of vegetable earth. It lies at a depth varying from

8 feet to 30 feet. When it is dried the residuum is a black powder too firm to be treated in the blast furnace and it has therefore to be made into briquettes, as is done with fine dust from blast furnaces and the finely divided iron produced from low-grade ores by the Edison electrical process. The cementing material used is kept secret.

Bessemer pig is not produced for the manufacture of steel exclusively, but is used in an increasing degree in the production of malleable castings. Manufacturers of car wheels are also said to be able to secure thoroughly satisfactory results from the use of it. Coke Bessemer is most sought for these purposes, but the charcoal metal also enjoys a share in the trade.

Mr. Alexander E. Outerbridge, Jr., believes that manganese is greatly maligned and misunderstood by foundrymen as a rule. It behaves very differently under different circumstances and with different kinds of iron. Experiments made fifteen years ago satisfied him that under suitable conditions the effect of manganese added in a ladle of molten metal was to cause a large proportion (nearly one half) of the carbon in pig iron, low in silicon, to revert to the graphite form. The strength of test bars of metal so treated was increased from 30 to 40 per cent., the depth of chill was decreased about 25 per cent., and the shrinkage was decreased nearly as much. The tests were made with car-wheel iron.

George R. Johnson describes experiments which seem to indicate that further use may be made of high manganese irons. The characteristics of manganese that make it suitable for mixture with iron are its high affinity for sulphur, rendering it a useful aid in eliminating that substance; the possession of the property in combination with iron of allowing the absorption of more carbon; and its tendency to increase carbon in the combined state. A number of English and Scotch brands of excellent quality are referred to as containing a high percentage of manganese. In Mr. Johnson's experiments of six specimens of iron, submitted to the test of scratching with a diamond, the manganese iron proved the hardest; and the results of tests in brake shoes showed that very great hardness, with good strength and toughness, might be obtained by using high manganese iron and chilling at a blue heat.

In a casting machine devised by Mr. R. W. Davis, of Warren, Ohio, for the production of sandless pig iron the molds—about 140 in number—are arranged around the circumference of a wheel about 50 feet in diameter. As the wheel is revolved, each mold comes successively under the ladle. After a cast has been made and the molds are filled, the wheel is revolved, and as each mold, which is hung on trunnions, reaches a given point each pig is tipped into a chute leading to a wagon.

It appears, from a discussion of the subject in the Pittsburg Foundrymen's Association, that the use of sandless pig iron in foundry practice has not proved as successful so far as in open-hearth practice, because of the oxidation of the overheated iron when it is not protected during the period of heating by the sand clinging to the pigs. It was suggested that the difficulty might be partly overcome by adding a small amount of slag. This, however, would protect the iron only after melting is completed, and not during the process.

Relative to the value of sandless pig iron as compared with ordinary pig, E. A. Welling says that the sandless iron has been demonstrated in the basic open-hearth furnaces at Homestead to be worth at least 50 cents a ton more than sand iron of the same composition. The enhanced value is due first to the fact that it melts more readily than iron with a crust of sand about it, and, being in a more advanced state of reduction when melted, is

more quickly converted. Then, while the sand damages the hearth and requires additional flux, the sandless pig is harmless, and the flux required is a minimum, thus saving material as well as wear and tear; consequently less fuel is required to convert the sandless pig into steel. This results in an increased output. The same holds true in remelting in the cupola for Bessemer steel. The sandless pig requires less flux and less fuel, melts more quickly, and results in appreciably less wear and tear in the cupola.

Experiments upon the loss by oxidation of cast iron when melted in a cupola were made by Thomas D. West in a "twin-shaft" cupola on sand and chill castings, and also on chill castings protected by various coatings or washes. It was found that the sand castings oxidized in melting to a greater extent than either the protected or unprotected chill or sandless castings. The average losses were: Sand iron, 5.8 per cent.; sandless iron, 3.4 per cent.; chilled iron, with lime wash, 3.8 per cent.; with graphite wash, 3.4 per cent.; with silicate of soda wash, 2.9 per cent.

Mr. David Baker, of Chicago, has devised an improved casting plant for blast furnaces in which the iron is run into ladle cars at the furnace, then hauled to the casting plant, where the metal is poured into moulds and delivered into cars by gravity, without any adhering sand and with a minimum loss in scrap. The iron goes into the cars cooled and ready for shipment.

A method for determining the hardness of cast iron described by Charles A. Bauer is based on the fact that, with a drill running at a uniform rate of speed and under a constant pressure, the number of revolutions required to drill a given depth would be directly proportionate to the hardness of the material subjected to the testing.

Hot metal direct from the blast furnace is used in the open-hearth furnace at the Homestead Iron Works, Pennsylvania. The operation of casting the metal at the Duquesne furnaces, transporting it in ladle cars by the Union Railroad 5 miles, mixing, reheating, recasting in ladles, and charging the open-hearth furnace, is performed in about one hour. Coke dust is used to retain the heat and cover the metal while in transit. Each ladle is fitted with an electric tipping apparatus which turns the ladle and discharges its contents into an immense cask-shaped mixer of 250 tons capacity. The metal is run from the blast furnace and into the mixer in forty minutes, and when ready for the open-hearth furnace the mixer is turned and runs the iron on the opposite side into 20-ton ladle cars, which are moved to the No. 2 open-hearth furnaces. The iron is then run through a spout into the furnace in ten minutes from the time it leaves the mixer.

From experiments on the effects of adding phosphorus to iron, especially in reference to the strength and fusibility of the metal, Thomas D. West learns that the strength of Bessemer iron is increased from 25 to 75 per cent., and that the fusibility of solid iron is greatly increased.

From experiments conducted during several years to determine the bursting stress of cast-iron cylinders under water pressure, C. H. Benjamin has drawn the conclusions that cast-iron cylinders of the form ordinarily used for engines, subjected to internal pressure, are as likely to fail by tearing on a circumference as by splitting; that by reason of local weakness and distortions the cylinder may fail when the stress, as calculated by the ordinary formula for thin shells, is only about one third of the strength shown by a test bar; that the principal cause of weakness is the sponginess of metal due to uneven cooling; and that to insure good

castings the flanges should not be materially thicker than the shell, the cylinder should be cast on end, and suitable "visers" should be provided for the escape of dirt and gas.

The results of tests of cast-iron columns by Prof. W. H. Burr, of Columbia University, go to show very irregular variations, and the author concludes his report by saying that "they constitute a revelation of a not very assuring character in reference to cast-iron columns now standing, and which may be loaded approximately up to specification amounts. They further show that, if cast-iron columns are designed with anything like a reasonable and real margin of safety, the amount of metal required dissipates any supposed economy over columns of mild steel. As a matter of fact, these results conclusively confirm what civil engineers have long known, that the use of cast-iron columns can not be justified on any reasonable ground whatever."

A series of fire tests of cast-iron columns, made at Hamburg, was applied to columns 10½ inches in diameter, and of 1.13- or 0.5-inch metal. They were loaded centrally and eccentrically, and some were cased with a fire-proof covering. A hydraulic press was placed below the column with its cross-head above it, and a hinged oven, containing 12 large gas burners, was clamped about it. On an average, a load of 3.2 tons per square inch, with a heat of 1,400° F., produced deformation in thirty-five minutes in a centrally loaded column without casing. This showed itself by bulging all round in the middle of the heated part, especially where the metal was thinner; fracture occurred finally in the middle of the thickest part of the bulge. If the load was less, it occurred at a higher temperature. Jets of water had no effect until deformation heat was reached. The casings had the effect of increasing the time before deformation began from half an hour to four or five hours.

In the practice of the crucible process for the production of steel castings at the New Admiralty, St. Petersburg, ferro-silico-manganese is used, according to Mr. Sergius Kern, as the most powerful agent to add to ready-made steel for the production of sound castings, the most useful alloy containing, on the average, 10 per cent. of silicon and 15 per cent. of manganese. Metallic aluminum is of second importance, especially if good raw materials are used: an addition of ferro-aluminum (14 per cent. aluminum) with the silico-manganese is preferred. For steel castings, roundings coming from the punching of steel ship plates for rivet holes and soft-puddled iron are used. The plates contain, on the average, 0.4 per cent. of manganese. In the ordinary run the various castings for shipbuilding contain 0.40 per cent. of carbon, 0.42 per cent. of manganese, 0.35 per cent. of silicon, 0.02 per cent. of sulphur, and 0.04 per cent. of phosphorus. In case of castings intended to resist water or steam pressure, the use of steel stronger in carbon is preferred, and the metal has 0.6 per cent. of carbon. Such a metal is recommended for the different pieces of Belleville boilers, mostly hollow and of capricious forms.

The temperature of crucible steel prepared in naphtha-firing furnaces at St. Petersburg is given by Sergius Kern as, just before firing for steel castings, 2,200° C. The experiments, Mr. Kern adds, prove that naphtha-burning furnaces for melting steel are far more convenient in comparison with the coke furnaces, and nearly equal to the Siemens gas-crucible furnace; but are cheaper and handier than the latter when small quantities of steel are melted at a time.

From experiments made and observed by him, Sergius Kern has learned that ferro-sodium used as a reducing flux in crucible steel makes the slags

thinner; but aluminum has still to be employed; while in casting a steam cylinder jacket of about 4 tons' weight improvement was visible. The charge in the cupola contained 75 per cent. of machine scrap and 25 per cent. of pig iron. The ferro-sodium was thrown into the ladle, and gave, when the cast iron was poured into it, dense fumes.

"Semi-steel" is the name given to a material formed by mixing steel scrap with pig metal to strengthen the resulting castings. It was first used in 1870 for car wheels, and subsequently for brake shoes. It has since been used in hammer dies, etc. It is claimed that greater strength and a closer grain are imparted when it is used in proper proportion with good charcoal irons.

The characteristic features of the Tropenas process for steel are defined as being: (1) Low pressure blast, always above the surface of the metal and through the lower or firing tuyères; (2) disposition of the tuyères in the horizontal plane, so that the jets of air, arriving above the bath, can not impart to the latter any gyratory motion; (3) great depth of the metallic bath, so as to avoid the churning and stirring of the latter during the operation; and (4) arrangements above the "firing tuyères," and independent of the latter, of a supplementary row of combustion tuyères, so as to burn the combustible gases escaping from the metallic bath and thus increase the final heat of the metal. Iron is produced by this process in so great purity and at such a high temperature that it is possible to make the most varied final additions with the view of producing different qualities of steel, from the softest to the hardest, and all the intermediate grades. This is done by modifying the final addition according to the product required.

In a newly described American process for tempering steel the article to be tempered is heated in a charcoal fire, and after being thoroughly rubbed with ordinary washing soap is heated to a cherry red. In this state it is quickly plunged into petroleum. It is said that the parts hardened by this method show no cracks, and do not warp; and that after hardening they remain nearly white, so that they can be finished without cleaning or grinding.

A direct process for tempering steel under pressure has been brought forward in Germany by Herr Haedicke. Of the two methods in which this may be performed one is by hardening the steel first by plunging it red hot into cold water and then drawing the temper, and the other is by plunging it into certain chemical baths. The process has been so far applied in the manufacture of saws and steel ribbons.

In experiments made at the Washington Navy Yard on the porosity of thin steel plates under heavy hydraulic pressure, pieces of sheet steel of $\frac{1}{4}$, $\frac{1}{8}$, and $\frac{1}{16}$ inch in thickness were subjected to a water pressure of 6,000 pounds per square inch. Percolation was not found in any case. A $\frac{1}{4}$ -inch rivet joining two $\frac{1}{4}$ -inch plates also proved tight under the same pressure. A test made to determine the friction of water under high pressure, while inconclusive, gave no evidence that it was any greater than the friction of water not under pressure.

Experiments of MM. C. Chistoni and G. de Vecchi on the magnetic qualities of Valtrompia tungsten steel gave satisfactory results, even superior to those obtained by Barus and Stronhal. The demagnetizing influence of time is represented not to have been felt, except after magnetization in the strongest fields; and the experimenters assert that after exposure to a comparatively weak field the magnetization went on increasing independently for some time. After saturation the time required to reach a stationary condition differed in various specimens, being longer in thick rods than in thin ones.

Concerning the relative value of iron and steel plates and forgings for use in shipbuilding, M. M. W. Aisbett said at the meeting of the South Staffordshire Iron and Steel Institute that steel was preferred to iron in consequence of the reduced scantling that was allowed, and even where the scantling was the same, on account of its ductility and the consequent possibility of bending it cold to any desired shape. Iron, being of larger scantling and not so ductile, was more rigid and less liable to throw off scale. It also corroded at a slower ratio than steel. In the case of strandings and groundings the author had generally found that of two given vessels which struck rocks, one iron and one steel, the repair of the iron one would cost considerably less than that of the steel one. His own impression was that a combination of steel and iron would be most advantageous for shipbuilding purposes.

Iron and steel are found to be much more brittle at their critical temperature, or what is called the blue heat, from 460° to 600° F., than when cold or at redness. This heat however, does not seem to leave any bad effect, though, if the piece be worked in such a range of temperature, it will retain the brittleness after cooling, and show a great loss of ductility. The poorer the iron the more susceptible it is to the blue heat. The danger to steel at this fatal blue point is more pronounced than in iron; but it exists to a greater or less extent in all iron of whatever grade, and is more noticeable in a descending than an ascending heat.

The danger of using too hard steel rails is considered by C. P. Sandberg in the light of several years' experience as consulting engineer and rail inspector for railways in Sweden. A medium hardness has always been aimed at in that country, as well as a minimum of phosphorus for the cold climate. Lately the higher wheel loads and speed have made it desirable to use a harder quality of steel in order to avoid crushing of the rails. The hardness has been obtained by using more carbon, or from 0.35 to 0.45 per cent., and more manganese up to 1 per cent., with silicon up to 0.1 per cent., and the phosphorus not more than 0.075 per cent. Experiments made with a few casts of this excessive hardness of carbon, or 0.60 per cent. in 80-pound rails, resulted in their flying into many pieces with less than half the specified trip test for safety, while casts with 0.45 per cent. carbon stood one ton falling 20 feet. The author's conclusion is that in a severe climate, such as that of Sweden, constructors should not try to remedy the deficiency in weight of rails used at the original building of the railways by now resorting to a dangerous hardness of rail steel retaining the same section, but should rather adopt a heavier weight of rail of moderate hardness, and consider safety before all.

Many persons who use forgings of iron and steel, Mr. H. F. J. Porter observes, say that they prefer wrought iron to steel for the connecting rods and crank pins of their engines, because steel, having no fiber, is brittle and snaps suddenly; while wrought iron, being fibrous, does not; that while wrought iron and steel both crystallize from shock, iron, being tougher, will outlast steel in such service as is performed by pistons of steam hammers; and that low carbon steel is softer than high carbon steel, and is therefore less brittle and not so apt to break in the forged parts of their machines. These views are declared by Mr. Porter to be mistaken. Such defects as have been revealed in forged steel are not due to the nature of the material, but to faults in the working of it. Steel does not possess to the same degree as wrought iron the property of welding. Instead, therefore, of building up a forging of small pieces, it is necessary to work down the

finished piece from a block of steel of considerable size. When the large rolling mills of the country changed their product from iron to steel, they continued to use the small hammers with which their forges were equipped, which, by taking advantage of the property of welding possessed by wrought iron, were of sufficient capacity to build up such small forgings of that metal as were demanded, but were not powerful enough to reduce properly the large blocks of steel it was necessary to work upon; and there were other reasons, in view of the processes which are now considered necessary for turning out good work, why the proper equipment could not be supplied by the forges of the day. The author supports his position by citing a number of specimen defects met in practice in steel forgings which have caused their failure in the past and have prevented their coming into more general use—all due to faulty methods of manufacture.

In the light of seventeen years' observation in the use of the Post steel cross ties on the Liège and Lindbourg (Holland) state railway, Herr Renson, chief engineer, concludes that the life of a steel tie exceeds several times that of those of oak. Cracks and breaks in steel ties noted in the beginning were due to the fact that the holes for the fastenings were punched. When the holes were drilled the evil disappeared. A plate placed between rail and tie, and raised edges along the top of the tie, further increased the durability of the latter. With these ties there was also less fear of the rails spreading.

To protect marine boilers in the French marine, the boilers are filled with fresh water to which milk of lime or solution of soda is added, strong enough to neutralize any acidity of the water. It may be stronger in boilers with large tubes than in those with small, where the deposit from the solution may be liable to contract the effective area. Care must be taken to preserve the outside of the steel crown in these boilers which are not to be used for long periods. For this purpose they are painted with red lead or coal tar as far as it is possible to reach, while a protective coating is obtained for the inaccessible parts by burning coal tar under the tubes. The smoke forms a coating of soot which prevents the air from reaching the surface of the tubes. Quicklime is put inside of the boiler casing, and it is closed and made air-tight.

Magnets are used at the plate mill of the Illinois Steel Company to lift red-hot metal. They are capable of lifting each five tons of red-hot steel, and are also so adjusted as to pick up half a dozen steel plates and drop them one at a time.

Gold and Silver.—Dr. Thomas Ewan points out that an advance of importance in the metallurgy of gold is marked by the application of electrolysis in the precipitation from cyanide liquors. Gold is not precipitated in a reasonable time by zinc from solutions containing less than 0.1 or 0.2 per cent. of free potassium cyanide, whereas with the electrolytic process the concentration of the solution is a matter of indifference. It thus becomes possible, by the employment of very dilute cyanide solutions, to extract economically the small quantities of gold contained in slimes and tailings which would otherwise have been thrown away. A further advantage of the electrolytic precipitation is that the metal obtained contains about 89 per cent. of gold, instead of the 70 per cent. contained in the zinc bullion.

The Bromine Gold Extraction Company is represented to have succeeded in treating ore with a loss of only about half an ounce of bromine to the ton of ore treated. The ability to recover the bromine at a small loss and a small nominal cost overcomes the chief objection to its use. The bromine

is converted into a dry salt, and shipped in that form to any part of the world. The company has succeeded in treating ores containing both gold and copper with success, at a low cost and a saving of both metals.

In the Black permanganate gold recovery process, now coming into use in the mines of New Zealand, sulphuric acid, together with common salt in combination with permanganate of potash, take the place of the hydrochloric acid of the Etard solution, and the solution is said to accomplish the work of extraction equally well and more rapidly, while it is much cheaper. An extraction of 92 per cent. of the gold contents of the ore has been effected with the Black solution in fifteen hours by percolation and in five hours by agitation.

For the assay of silver by Gay-Lussac's humid process, as described by Mr. A. C. Outerbridge, the assayer prepares two solutions of common salt, one of which is known as the "normal solution" and the other as the "decimal solution." One begins and the other completes the assay. The sample is weighed out in quantity sufficient to contain not less than one gramme of pure silver, and is then placed in a glass bottle with a charge of nitric acid. The acid is caused to boil, and the silver alloy is completely dissolved in a short time. A charge of the normal salt solution is allowed to flow into the bottle from a glass pipette, which is made of such a capacity that it shall contain just enough salt water to precipitate one gramme of pure silver. The chlorine in the salt combining instantly with the silver, precipitates it in the form of a white cloud; the bottle is agitated rapidly for a few moments, when the precipitate settles to the bottom, leaving a clear solution above. The assayer next allows a charge of the "decimal solution," which is one tenth the strength of the normal solution, to flow into the bottle from a burette or glass tube with graduated divisions, each division making one hundredth the capacity of the large pipette. If any silver remains in the solution, a cloud will be observed on the surface. Now, as this decimal charge is one tenth the strength and one hundredth the volume of the large pipette, it will, of course, precipitate one thousandth as much silver, or one milligramme. The bottle is again agitated to settle the precipitate, and successive charges of the "decimal solution" are added until all the silver is precipitated, and then a simple rule-of-three calculation gives the exact proportion of pure silver contained in the original weight of the alloy.

The electrolytic process of Messrs. Pelatau and Clerici for extracting gold and silver from their ores and other compounds has been described as a single continuous process, because it has proved itself equal to effect in one operation all that can be expected of it. In it we have, Major-Gen. C. E. Webber believes, for the first time a process and apparatus which effectively combine in a way that can be constructed and worked by a workman of average intelligence, a vat made of material dielectric in its nature; an agitating apparatus of various specific forms, each form calculated to carry out one and the same process, having an agitator, part of which constitutes the anode in an electrolytic circuit, which is carried so that it can not make contact with the bottom or sides of the vat; the presence of a cathode, covering the whole of the bottom of the vat, made of a metal and adapted to carrying on it a layer of mercury; the use of a graduated current from an electrical generator, having large quantity and low potential; and the mixture or sludge under treatment composed of water in given proportions, ore finely pulverized, potassium cyanide or other solvent of gold and silver, and common salt, with the addition as required during

the process of alkalis or organic acids. A simple means given by Mr. Pelatau of testing quantitatively for gold and silver in the solutions with potassium cyanide as a solvent at each stage of treatment, consists of heating 500 cubic centimetres of solution nearly to boiling point, adding 2 grammes each of sulphate of copper and sodium sulphate and of hydrochloric acid, so as to have strong acidity; filtrating the black precipitate in which all the gold and silver are retained; and scarifying the precipitate with 50 grammes of litharge. The precious metals are recovered from the lead by cupellation.

To refine the precious metal at the United States mint from small percentages of base metals they may contain, the metal is melted with the addition, while it is fluid, of saltpeter as an oxidizing flux. The saltpeter decomposes and liberates oxygen gas; the oxygen seizes the base metals, forming oxides; these rise to the surface and are dissolved in the flux; the flux, when sufficiently thick, is skimmed off, and the purified metal, consisting only of gold and silver, is poured into cold water to form granulations. The silver is removed by boiling in nitric acid, when it dissolves, leaving the gold in a finely divided state.

Medals of silver with polished surface soon tarnish, and several processes have been applied for giving them a frosted texture. In England the flat surfaces are left smooth and mirrorlike, while the parts in relief are frosted. In France unpolished dies are used, and care is taken to impart a dead or frosted surface to the medals struck by rubbing them with fine pumice. More recently a sand-blast process has been employed at the French mint. Sometimes the surface is darkened by exposing it to a solution of chloride of platinum, after which rubbing with a brush and very fine pumice changes the color to a delicate gray, and, with skill, graduated shadows may be left wherever they are desired. A medal with a frosted platinized surface has, according to Prof. Roberts-Austin, a great advantage over one with a polished table, as the platinized one is merely dampened in tone by exposure to the atmosphere, and does not become disfigured by blotches of tarnish. The frosted platinized medal may be restored to almost its original freshness by careful rubbing with a soft leather, while the tarnish on a silver medal is often too deep to be rubbed off.

Aluminum.—In a review of the present state of the aluminum industry, published on the authority of Prof. Roberts-Austin, of the British mint, the current selling price of the metal is quoted as 33.2 cents per pound. The cost of production is estimated to be 27.2 cents per pound, of which only 2.2 cents is for electric energy consumed in the production of aluminum, while the cost of the raw material is placed at 12 cents. No further reduction need be expected in the cost for power, which appears to be extremely low, but there is a possibility of effecting a reduction in the price of the raw material, in which direction, as in that of new methods of manufacture, further improvement must be sought. It is proposed by M. Becker, formerly manager for the French Aluminum Company at St. Michel, to substitute calcined bauxite for the refined alumina formerly used in the manufacture, whereby the cost of aluminum might be reduced to nearly 10 cents a pound. The objections are offered to this substitution that aluminum thus made would contain silicon and iron as impurities, for the removal of which some cheap process of refining would have to be applied.

According to a paper read by Mr. E. Ristori at the summer meeting of the British Institute of Mechanical Engineers, great improvements have been made in the process of manufacture used by

the British Aluminum Company. The finished product is a very finely divided powder of alumina, and is packed for shipment in hermetically sealed drums. The oxide is reduced by the Herault process and the metal is run out of the electrolytic baths into ingot molds. In this form the aluminum is pure enough for certain purposes, and much of it is therefore sold without further treatment. For uses where a pure metal is required, the crude ingots are refined to a purity of 99.6 per cent. With certain limitations imposed by the chemical and physical properties of the material, aluminum can be worked much like the other industrial metals handled at the present day. It can be forged hot or cold; in comparison with other metals it ranks third in malleability and sixth in ductility. Sheets have been hammered as thin as one forty-thousandth of an inch. In turning, the edge of the tool soon becomes blunt, and the cutting speed should be high. In its purest form aluminum is very soft, and is not of great service in those arts in which much rigidity and strength are required. One casting alloy having a specific gravity of 2.9 is largely used, but its composition is still kept secret. It produces remarkably clean castings, which require very little machining to finish up, and takes a high polish. The two alloys particularly recommended as among the best yet made are ternary alloys, and contain tungsten as the leading ingredient after aluminum. One of them has besides a small proportion of copper, and the other nickel, and both display high qualities of strength and elongation. Aluminum bronzes have superior strength, and are especially suitable for marine engineering.

A method of blackening aluminum, represented to be satisfactory, consists of polishing the surface to be blackened with fine emery paper, spreading on it a thin film of olive oil, and heating slowly on a spirit flame, when the oil boils and takes a golden color. Then another coat of oil is laid on, and on heating strongly the golden color becomes brown, and soon darkens to an intense black.

In the Wegner process for plating aluminum goods, the article to be plated is first pickled in a bath composed of acetate of copper dissolved in vinegar, iron oxide, sulphur, and chloride of aluminum. After having been taken out of the bath, it is brushed with a soft wire brush. A metallic coat then develops on the surface of the aluminum, closing its pores and rendering it smooth. After rinsing it in clean water the article is put into the galvanic bath and operated on in the usual manner. The current is kept closed until on the aluminum or its alloys a metallic coat of gold, nickel, copper, or other metal of the desired thickness has been formed.

A successful method of plating aluminum with copper by a welding process is claimed to have been invented by Herr Wachnitz, a German engineer. It is said that the plated sheets can easily be soldered, grooved, tinned, and nicked, and that the plating may be of any thickness desired, there being no separation even with the thinnest sheets when rolled or drawn.

A remarkable property of aluminum is described by Hans Goldschmidt and Leon Frank, who find that if a mixture of metallic aluminum and the oxide of another metal be heated at one point to a high temperature the oxygen leaves the other metal and oxidizes the aluminum, generating an extremely high temperature, which continues the operation till the reaction is complete, and the oxide is reduced to a metal which is free from aluminum. Instead of oxides, sulphides may be used, but the heat developed is less than with oxides. The process may be used for generating heat for the production of metallic alloys for brazing, welding,

perforating iron plates, etc., and for the reduction of metals from their oxides. Among the metals that have been obtained in this manner are chromium, magnesium, iron, titanium, barium, wolfram, molybdenum, nickel, cobalt, and vanadium. Alloys of barium with lead and with iron, ferrotitanium, and other alloys have also been made.

Among the various practicable applications of this reducing action of aluminum, Mr. A. E. Hunt, of the Pittsburgh Reduction Company, mentions its employment in the production of steel castings; from 2 to 5 ounces of aluminum per ton suffice to remove oxygen from the steel, and so to obviate to a great extent the formation of blow holes in the castings. A little aluminum added from time to time to the baths of molten zinc used in galvanizing removes the oxide and keeps the baths fluid. The addition of a little aluminum in making brass castings increases their soundness in a similar way. Aluminum is used instead of brass for a multitude of small and stamped objects that do not require to be soldered, while no trustworthy method of permanently soldering it seems to have been found yet. It may probably be used as a conductor of electricity, though at present the advantage in price lies with copper.

A hand car built by a St. Louis company as a specimen has the wheels, body, and walking beam made of an aluminum alloy of great strength and lightness, and the axles of steel tubing. By means of these and other improvements—such as gearing of the bicycle pattern admitting of adjustments for the speed desired, ball bearings, and hub brakes—it is believed that two men will be easily able to run the car for a limited time at a speed of from 20 to 35 miles an hour. The new car will weigh not more than 150 pounds, or about one third as much as the ordinary hand car, and one man will be able to lift it on or off the track.

An experiment in the use of aluminum for horse-shoes has been tried in the Finland Dragoons of the Russian army. One foot of the horse is shod with aluminum and the other three feet with ordinary shoes. The aluminum shoe has $2\frac{1}{2}$ ounces in weight to its credit, is not more costly, and wears longer than the ordinary shoe, while it is not so easily affected by mud and moisture.

In one of the electrical installations at Niagara Falls aluminum is used, in place of copper, for the conductors connecting the dynamos at the bottom of the shaft with the plant on top of the cliff. According to a description in the "Western Electrician," the bars used are 25 feet long and half an inch thick, four being used in parallel, bolted and riveted together every 25 feet. At the top they are connected with aluminum cables $1\frac{1}{2}$ inch in diameter, and covered with india-rubber insulation. The total weight of these aluminum conductors is about 22,000 pounds, while the same work would require 48,000 pounds of copper.

Copper and Nickel.—In the electrolytic process for purifying and refining copper, as described by Dr. Thomas Ewan, the copper containing from 0.3 to 2 per cent., or sometimes more, impurity is cast into plates, which are suspended, about 8 or 4 inches apart, in large lead-lined wooden boxes. Between each pair of plates a thin sheet of pure copper is suspended, and the solution, containing from 15 to 20 per cent. of crystallized copper sulphate and from 5 to 6 per cent. of sulphuric acid, is run in. The impure copper plates form the soluble anode, and the thin sheets receive the pure copper. The electrical energy needed to carry out the process is from 0.1 to 0.2 electrical horse power per hour per pound of copper deposited. Of the impurities in the anodes, gold, silver, and part of the arsenic and antimony remain undissolved, while iron, nickel, and the remainder

of the arsenic and antimony pass into the solution. The two latter metals are deposited along with the copper when they are allowed to accumulate too largely in the solution, especially if the amount of free acid is small. The solution must therefore be purified from time to time, and this forms the main difficulty of the process.

Nickel can be obtained pure by grinding up sulphide nickel ore and subjecting it to heat in an electric furnace. The sulphur is entirely eliminated, and the nickel is separated from the iron. Copper also has been separated from a matte of copper, nickel, and iron when smelted electrically. The furnace consists of cast-iron drums 10 feet in diameter and 2 feet long, mounted on a shaft and slowly rotated by a hand worm-gear; the electrodes are carbons 4 feet long and 4 inches square. The 2 electrodes of 4 pencils each are separated by a space of 8 inches, the axis being the axis of the furnaces. As the ore is reduced the resultant metal lowers the resistance of the furnace, and when the latter is slowly rotated the metal is drawn away from the electrodes, and fresh ore is brought between them to be acted upon. Notwithstanding the height of the temperature reached, it is under complete control.

Dr. Thomas Ewan says, in a paper on "The Industrial Applications of Electro-chemistry," that while it is perfectly easy to deposit a very thin film of nickel by electrolysis, the metal peels off if a thicker deposit is attempted. According to Foerster, however, tough, homogeneous plates of nickel of any thickness may be deposited from aqueous solutions of the sulphate or chloride if they are heated to from 50° to 90° C. The nickel, however, is not so pure as copper similarly obtained, cobalt and iron occurring in the refined metal in about the same quantities as in the unrefined. Electrotypes of nickel is now a commercial article; part of it is obtained from alloys of copper and nickel containing a considerable amount of sulphur, which are used as anodes, the copper being first deposited, while the nickel goes into solution, from which it is subsequently deposited.

Tin and Zinc.—For the electrolytic removal of tin from tin plate, the tinned scrap is suspended in iron baskets which form the anode, and the tin is deposited in the spongy form on sheet-iron cathodes, the electrolyte being a solution containing from 10 to 15 per cent. of sodium chloride, to which a little caustic soda is added from time to time to prevent the precipitation of stannous oxide. The solution is warmed to 40° or 50° C., and since tin dissolves under these circumstances independently of the electric current, it is necessary occasionally to evaporate the solution and work up the residue for sodium stannate.

At the Crefeld silk factory, Rhenish Prussia, is a plant for recovering tin from tin-plate scrap. In order to make white and colored silk heavier and more agreeable to the touch, it is boiled in a solution of chloride of tin. The pure chloride, which, of course, is most suitable for the process, being too expensive, tin-plate scrap is used for the chemical manufacture of a chloride. The tin is recovered from the scrap electrolytically, and the impure tin thus obtained is worked up further to chloride of tin.

The history of the electro-metallurgy of zinc is pronounced by Dr. Thomas Ewan mainly a record of failures. When deposited from neutral or slightly acid solutions, zinc is very prone to separate in a spongy form, probably by the formation of traces of oxide. This may be remedied by the presence of reducing agents or by vigorous circulation of the solution, and is promoted by the presence of metals more electro-negative than zinc,

which deposit on it and produce oxidation, while it is difficult to insure the absence of such metals. In Dieffenbach's process, which is in successful operation at a German establishment, a solution of zinc chloride, obtained by leaching a zinciferous iron pyrites after submitting it to chlorinating roasting, is electrolyzed. The Ashcroft process obtains coherent zinc by employing a somewhat basic solution of zinc sulphate or chloride in the cathode compartments of the electric cells. The Siemens and Halske process employs a somewhat acid zinc-sulphate solution. An almost chemically pure zinc was obtained at Tarnowitz from an alloy of zinc and silver with a little lead and copper, procured by desilverizing lead with zinc containing about 0.5 per cent. aluminum, refined electrolytically.

In introducing his new apparatus for the electrolytic production of zinc, Dr. Carl Hoepfner, of Giessen, Germany, affirms that zinc has not hitherto been recovered electrolytically on a commercial scale from zinc-chloride solution, owing to the nature of the cathodes used. Such solutions, he says, can be economically electrolyzed only by the use of discoidal rotating cathodes when partly immersed in the electrolyte, and the zinc is obtained in a homogeneous pure solid condition. With such cathodes currents of high density can be used when it is desired to produce chlorine together with zinc.

Attempts to deal on a commercial scale with complex refractory ores, such as those existing at Broken Hill, which contain on an average about 25 per cent. of lead, 20 per cent. of zinc, and 20 ounces of silver per ton, have been abandoned on account of the great difficulties met in practice. It is claimed that the Cowper-Coles electrolytic process overcomes all these difficulties, and has other substantial advantages, as regards economical working and the purity of the products obtained. The ore, after being crushed dry and roasted, is screened, so as to remove the very fine dust or slimes, which are treated by a special process in separate vats, while the screened ores are placed in vats provided with false bottoms or filter beds. A weak solution of sulphuric acid, which may be made from the sulphur dioxide driven off from the ore during the process of roasting, is employed for leaching off the zinc. The leaching solution, after being drawn off from the operation tanks to remove any copper that may be present, is circulated through a series of electrolyzing cells, where the zinc is deposited in the form of metallic plates on an aluminum cathode, or in the form of zinc sponge. By using a suitable strength of solution only the zinc and copper are removed from the ore, while the other metals present are not dissolved. The residue, after the zinc has been leached out within a few per cent., is washed to remove the soluble zinc sulphate. The lead and silver remaining in the residue can be extracted by any of the well-known methods.

Alloys.—The mechanical defectiveness and consequent electrical instability of alloys used for electrical wires are discussed by Mr. Rollo Appleyard with regard to the constitution and metallurgy of the alloy, and the subsequent treatment and environment of the wire. Instances are given of the failure of German silver and platinoid wire that have occurred among several thousand resistance coils distributed over widely different latitudes. In periods of time, varying from six weeks to several years after manufacture, some of the bobbins became brittle and bulky, both on the outer layers and within the coils. The towns where the faults appeared are all within the tropics, and are included nearly within the isotherm of 25° C. Other coils of nominally the same material, manufacture,

and environment have retained their original good condition. It follows that metallurgical differences exist between different samples of the same nominal quality of alloy. Examples are given to prove that failure sometimes occurs with platinoid through which no electricity has passed. Provided that the wire is good, the effect of environment is almost insignificant—that is, the question is one of metallurgy rather than of instrument-making.

The experiments of Prof. Guillaume show that the higher alloys of nickel with steel up to 50 per cent. of nickel are subject to very slight expansion by heat, and are therefore suitable for the construction of standards of length. An alloy containing 36 per cent. of nickel showed an extremely small variation in length under wide changes of temperature. The hardness and strength of this alloy, and the fact that it readily receives a high polish and is little subject to rust, add to its suitability for the purposes indicated. The same property renders it eminently suited for the construction of pendulum rods for clocks, as the variation in length due to changes of atmospheric temperature would be almost inappreciable. It is possible that bars of this alloy may prove satisfactory for measuring rods for geodetic base measurements, thus dispensing with the use of the troublesome compensating compound bars, or with the device of employing a bar packed in ice.

The use of coins made of an alloy of copper and nickel in two of the French colonies has made necessary at the mint a rapid and exact method for the analysis of these coins. They are not of the same composition, one containing 25 and the other only 15 per cent. of nickel. They being binary, it is only necessary to determine one of the metals—the copper, for instance. But as the nickel is the more expensive, it is preferable to estimate it directly rather than to deduce its weight by difference. In the process a gramme of the alloy is attacked with the smallest quantity possible of nitric acid on a sand bath, after which the directions are: Add a little water containing five or six drops of sulphuric acid and evaporate to dryness. Take up with water still containing a little sulphuric acid, and again evaporate to dryness to make sure that all the nitric acid is driven off; redissolve in water with a little sulphuric acid, and pour into an electrolytic crucible, filling it about one third full. The copper alone is deposited. The remaining solution is saturated with ammonia and electrolyzed with three Daniell cells. This brings down the nickel, and the whole process gives very concordant results. The difference between the total weights found and 100 represents the impurities—consisting of sesquioxide of iron and oxides of manganese and aluminum—in the nickel.

In experimenting with Babbitt's antifriction metal, 82 Sn, 9 Sb, 9 Cu, Prof. H. Behrens and Mr. H. Bancke found that by slow cooling the alloy was split up into compounds of different fusibility. By pressure between the plates a metallic mother liquid was squeezed out. The remaining cakes of crystalline metal were treated with hydrochloric acid and washed with water. An alloy, containing 90 Sn, 10 Sb, on being thus treated, yielded the same cubic crystals as Babbitt's metal, which were found to answer to the formula SbSn. With 42 Sb prismatic crystals of the compound SbSn were obtained. In Babbitt's metal the copper forms brittle needles of whitish bronze containing no antimony. Such bronzes show less stability than the compounds of tin and antimony. From an alloy of 90 Sn, 10 Cu, the compound CuSn was obtained. Repeated heating and cooling brought the copper percentage up from 85 to 58. Microscopical examination of bearings showed that cushions heated by

running were poor in cubic crystals of the compound SbSn . Babbit's metal is made amorphous by casting in cold molds. Axles running on such metal get tinned; this leads to sticking and heating; finally recrystallization sets in, and liquid tin is squeezed out, while a compact layer of crystals is formed on the axle. Microscopical examination of the metallic deposit from the lubricating oil led to the unexpected result that metal with crystals of moderate size will develop ball cushions. Tin is ground to a fine dust by the sharp fragments of the bronze needles, the hard cubes of SbSn are rounded, undermined, and finally worked up into something like metallic pebbles of microscopical size. Similar spheroids were obtained from bearings of magnesia metal and of aluminum brass, but not from ordinary brass nor from gray cast iron.

Medals of bronze, Prof. Roberts-Austin says, differ considerably from those of silver, in that their surfaces are far more liable to be affected by the slow operation of atmospheric influences and by the more rapid action of chemical agents. Ancient silver coins, for instance, which have been long buried in the earth, do not show anything like so wide a range of color in their patina or crust as is revealed on coins of brass, bronze, or copper which have been hidden in the same way. This is due to the fact that silver is much less affected than copper by the chemical action of the constituents of soils, or by atmospheric influences. The rust of a patina which is formed, a skin or pellicle of oxide, serves to protect the surface of the medal from further changes. In modern times most medals to which the name of bronze is given are really of copper, "bronzed" or colored artificially on the surface. The process consists in applying with a brush a composition of common crocus powder and jeweler's rust, and polishing when dry and cold. A composition of verdigris, 87 grains; sulphate of copper, 437 grains; niter, 87 grains; common salt, 68 grains; sulphur, 233 grains; and water, 1 gallon, has also been found to answer fairly well. A Japanese "verdigris" called "rokusho" may be made by slight variations in its composition to give copper a great variety of tints, ranging from golden yellow through deep brown to bright red. The quality of the copper also exerts a very great influence on the tint of the patina. In France medals of true bronze containing much zinc are struck, and although the color is heightened by superficial oxidation, produced by gentle heating, no true patination is effected.

A metallic preparation for plating iron and steel, patented by W. J. Wilder, consists of an alloy of zinc, tin, and aluminum, and is claimed by the inventor to possess superior qualities. It becomes alloyed to the base, and is so thoroughly attached that the sheets, for example, will stand working after the coating has been applied, will resist corrosion, and can be heated red hot without injury.

Processes.—In the Cowper-Coles electrolytic cyclic process for the treatment of refractory ores, a special feature of interest is the throwing down of the zinc from the sulphate solution upon aluminum plates, which can be either stationary or caused to revolve. The use of aluminum, through the formation of a loose film of oxide, greatly facilitates the stripping of the zinc from the cathodes. Zinc sponge deposited on the revolving disks is scraped off by means of adjustable wood scrapers, and allowed to gravitate into a receiving box, where it is drained. It is then dried, and forms a good substitute for what is commonly known as zinc dust, the grayish amorphous substance obtained as a sublimed product during the distillation of zinc from its ores. This zinc dust is largely used in the Cowper-Coles regenerative electro-zincing process.

The lead obtained by leaching out with a solution of caustic soda is also deposited on revolving disks, and the deposit is scraped off from time to time. Litharge is made from the sodium plumbate solution by evaporating it at a temperature not exceeding 80°C .

A recent process for metallizing wood consists in first immersing the wood for three or four days in a caustic alkaline lye, and passing it thence immediately into a bath of hydrosulphite of calcium, to which is added, after twenty-four or thirty-six hours, a concentrated solution of sulphur in caustic potash. The bath has a temperature of from 50° to 55° , and the wood is immersed in it for forty-eight hours. Finally the wood is immersed for thirty or forty hours in a hot solution of acetate of lead. It is represented that wood prepared in this manner, and after having undergone a proper drying at a moderate temperature, acquires under a burnisher of hard wood a polished surface and exhibits a very brilliant metallic luster. The luster is further increased if the surface of the wood is rubbed, in the first place, with a piece of lead, tin, or zinc, and afterward polished with a glass or porcelain burnisher.

A process for the electrolytic manufacture of white lead consists in the action of electrolytically generated nitric acid on lead. Of the four reactions in the process, the first consists in the electrolytic preparation of nitric acid and sodium hydroxide; the second in the formation of lead nitrate by the action of the nitric acid on the lead. Then lead hydroxide is formed by the reaction of lead nitrate and sodium hydroxide; and, finally, the combination of lead hydroxide and sodium bicarbonate forms a lead carbonate or white lead.

Utilization of the very high temperature ($3,000^{\circ}\text{C}$.) produced by the union of aluminum with oxygen for soldering purposes, or for the preparation of pure metals and alloys, is suggested by Mr. Goldschmidt in the "Zeitschrift für Elektrochemie." When a more moderate temperature is sufficient for the work to be done, the active mass may be diluted by the addition of some inert substance—a metallic oxide, iron ore, silica, etc. Solderings effected with heat from such a source are considered better than electric solderings because of the greater uniformity of the temperature. The author showed the German Elektrochemical Society a large mass of chromium which had been prepared by treating a mass of oxide of chromium and powdered aluminum in a crucible which was provided with a covering of magnesia. The reaction was started by burning a little magnesia, after which the mixture was added till the crucible was full. After cooling the crucible was broken and the ingot of chromium was taken out. By making two holes in the crucible, one for the introduction of the mixture and the other for the outflow of the chromium, we can have a continuous process, as in the electric furnace. The temperature obtained is higher than in the ordinary electric furnace. The aluminum produced may be converted anew into aluminum which can be used again, or it may be employed for polishing, for which it has some advantages over emery. Most of the metals can be reduced from their oxides and various alloys can be prepared by this method. The furnace residue contains little rubies colored by chromium. To prepare the pure metals it is necessary to use pure aluminum; but when a high temperature only is wanted crude aluminum will do.

In experiments in the application of pressure to filings of iron, steel, copper, tin, etc., Profs. Adams and Nicholson, of McGill University, have found that by the use of a compressor capable of applying 78,000 pounds to the square inch, metallic filings or

shavings may be consolidated into a bar or cylinder, weighing nearly as much as a cast or rolled bar of the same metal. It has been found easy to solidify Pittsburg brass, which is reputed one of the most difficult metals to unite by mechanical pressure.

An electric welding machine, designed by W. Clark, is intended to be alike suitable for furnace, crucible, open-hearth work, welding, brazing, and hand soldering, etc. It is arranged so that the carbon holders are capable of movement in every direction, admitting of their being placed at any angle in any plane. In order to achieve this, the framework supporting them consists of a slotted arch of metal cast in two halves, which are mounted upon a fire-resisting and insulated base, and are efficiently insulated from each other at the top, where they are bolted together. The carbon holders have a swivel action, fitted with thumb-screws, so that they may be clamped in any position. The swivel action is attached to an insulated bolt, which passes through the slots in the framework, and allows of adjustment to any height. Each carbon holder having an action independent and insulated from the other and from the framework, it is readily seen that they are easily capable of any arrangement to suit requirements.

In a successful test of a new welding machine—the Debombourg—at Bucyrus, Ohio, the iron was heated for a butt weld of 8-inch round bars. When put into the machine the bars were immediately gripped and by the use of a side lever squeezed into each other. The operation took only three minutes. When put up to the breaking test the weld was found to be the strongest part of the bar. It also withstood a severe tensile strain. The machine is simple, weighs only 1,800 pounds, and is capable of handling bars from 1 inch to 6 inches in diameter. No hammering is required to complete the weld.

Miscellaneous.—In a lecture at the Royal Institution on "The Metals used by the Great Nations of Antiquity," Prof. J. H. Gladstone began by speaking of some small gold and copper objects that were found in the recently discovered tomb of Menes, the first of the Pharaohs of Egypt, whose date is estimated to have been about 4400 B. C. The use of copper for tools was illustrated from the recent discoveries of Prof. Petrie and others in explorations at Negada. Later methods of hardening this copper by hammering or by the admixture of arsenic or of tin in sufficient quantities to form bronze were elucidated by experiments and the results of analysis. Lead, silver, and antimony were introduced at dates which have not been fully determined; and the lecturer believed that iron was little used, if at all, in Egypt before 1200 B. C. In Assyria, the earliest specimens of metal had been found at Tello. They consisted of copper and silver, and were thought to date from about 2700 B. C. The accounts of the great quantities of gold and other metals stored up in treasure houses or paid in tribute in the time of the great Babylonian empire were illustrated from the drawings on the black obelisk of Shalmaneser II, and the bronze gates of his palace. In Palestine the Hittites used gold and silver for commercial and ornamental purposes; and the various peoples found in that land by the Israelites on their return from Egypt also employed bronze and iron. Copper implements of war had been found at Tel-el-Hesi, the ancient Lachish, in the Amorite town, and in the Jewish town, with bronze vessels, occasionally silver and lead, gradually giving way to iron. The excavations by Dr. Schliemann and others at Tiryns, Mycenæ, the supposed Troy, and other places, proved the abundant use of gold and copper by the Archaic Greeks,

and the successive introduction of bronze and iron before the compilation of the "Iliad."

The American section of a proposed international association for testing materials has been organized at Philadelphia, with Prof. Mansfield Merrimann as chairman. Among the various problems to be submitted to it are: Ways and means for establishing international standard specifications for the inspection of all kinds of iron and steel on the basis of those already existing; determination of methods of tests of the homogeneity of iron and steel, looking to their eventual use in inspection; preparation of uniform methods of test of paints as protection against corrosion of railroad structures; unification of tests of terra-cotta pipes; investigation of behavior of iron under abnormally low temperatures; methods of testing welds and weldability; collection of all information for preparation of standards for piece tests, with special reference to axles, tires, car springs, cast and wrought pipes, as well as of separate parts of structures; investigation of the most practicable methods of polishing and etching for micrographic study of wrought iron.

Concerning the "fatigue of metals," which is sometimes cited to account for failure of forgings of iron and steel, Mr. F. H. J. Porter says that while our knowledge on the subject is still limited, it is known that the metals being initially crystalline, do not become so from shock or any similar service when cold. "Fatigue" simply means that frequent repetitions of load in amount far below the ultimate strength of the material will eventually break down its resistance and cause failure. Beyond the bare statement of this fact, laws of a general character have been formulated, but the complex nature of the situation prohibits exactness. No two pieces of metal are alike in chemical composition; and, if they closely approach similarity in this respect, the difference in mechanical treatment in their manufacture causes them to possess widely different physical properties. Generally speaking, we know that for any given stress a certain number of repetitions produce failure; the greater the intensity of stress, the smaller the number of repetitions. We know also that the stress required to cause failure is less, and, roughly speaking, only half as great when the metal is strained alternately in opposite directions as when it is strained in one direction only. It is very striking how regularly progressive is the increase in the number of repetitions as the range of stress decreases; and if we can make the range of stress small enough, a practically unlimited number of repetitions is required to cause failure. From certain tests that have been made it has been found that within a certain limit, which is approximately one half of the ultimate strength, the metal is elastic, and if strained beyond this point its working strength is exceeded, and it can no longer be depended upon to sustain even minor loads. Such tests give results, however, which are simply relative. Their actual significance is uncertain. The fact that a metal possesses a certain elastic limit, elongation, and contraction of area when ruptured by once loading, fails to convey an adequate idea of what the same metal will do under circumstances of repeated stresses or when these stresses are applied in alternate directions, as they are in practice.

The surfusion of metals and alloys is their maintenance in a fluid state at temperatures which are many degrees below their true freezing points. It has been shown by Ostwald that a very minute quantity of a solid will cause a mass of the same substance to pass from the surfused to the solid state. The same author distinguishes between the *meta-stable*, or ordinary condition in which surfusion takes place, and the *labile* condition which

occurs at temperatures much below the freezing point. Prof. W. C. Roberts-Austen has detected pronounced cases of surfusion in gold, copper, bismuth, antimony, and tin, and has also observed it in alloys, of which the eutectic alloy in the bismuth-copper series is mentioned as presenting a marked case. In studying the phenomena the author has been able to trace the solubility curves of certain metals in each other, in the same way as was previously effected in the case of salts by H. le Chatelier and by Dahms. The first experimental evidence as to the identity of the behavior of saline solutions and metallic alloys as regards selective surfusion has thus been afforded. It is further shown by Prof. Roberts-Austen's experiments and those of others that alloys may be formed by the vaporization of certain metals in a vacuum at as low a temperature as 50° C. The results given in the author's paper reveal additional points of similarity between the behavior of alloys and that of ordinary saline solutions.

From studies of the mechanical working of metals, Mr. G. A. Faurie finds that stretching gives rise to wavelike deformations on the surface. Under certain conditions, wavelike knots and swellings at regular intervals can be recognized, but they are usually rather vague; sometimes, however, they are more distinctly developed. These knots occur in wire, rods, or sheets, as soon as their length exceeds their smallest diameter fifty times. They are supposed to be caused by the action of the burden on the lower end of the sample interfering with the reaction at the upper end.

The British Government's Committee on Dangerous Trades has reported, in effect, that the dangers likely to arise during conversion by the Bessemer process are generally adequately met and counteracted. They, however, make some recommendations with a view to rendering the observance of proper precautions more general and complete. They describe the advantage they enjoyed of seeing some of the largest industrial undertakings in the world, "where vast capital, unequaled experience, and wonderful ingenuity have combined to produce in the manufacture and handling of masses of molten and red-hot metal an immunity from accident which is remarkable." It is observed that "mighty ingots of nearly white-hot steel and seething caldrons of molten metal can not be conveyed from the place of one process to another, to be beaten or rolled into rails or armor plates, or to be pounded into molds or ladles for further distribution, without incurring some amount of risk. As the slightest blunder or the most trivial oversight in the construction or handling of the machinery might cause a vessel containing molten steel to deal out death to every person engaged in the process, it is acknowledged to be most creditable to all concerned that there is such general immunity. The principal recommendation made is as to control gear for automatically locking the converter when by accident its regular or proper course of reversal or tilting is interfered with. One of the six recommendations in reference to the use of converters is that no one be allowed to remain in the pit while the converter is being lowered, or during the process of pouring.

A system of furnace grate for obtaining perfect combustion by distributing the air introduced across the grate has been devised by M. Poillon, who also claims to avoid injurious blowpipe flames. The air inlets at the upper level of the grate which receives the coal are as small as is necessary completely to burn the whole of the fuel with a minimum of air, and at a slight pressure in order to avoid drawing the ashes into the flues. The air inlets are wider below than above for facilitating access of the air,

and also for forcing the flames to spread in the form of a fan, while the inlets of the first series of plates or bars nearest the fire door are inclined backward, so that the air issuing from them is deflected toward the bridge. Careful trials of this system, carried out at Louviers, France, are said to have resulted in a saving of 32 per cent.

The Jones mixer, the patent for which has been declared valid by the United States Circuit Court at Pittsburg, is a large covered vessel, lined with fire bricks, holding from 200 to 300 tons of molten iron. The metal is drawn from the blast furnaces into ladles, in which it is carried to the mixer and poured into it. The metal in the mixer is drawn off from time to time into other ladles, which carry it to the Bessemer converters. The mixer performs the double function of storage, enabling the converters to run regularly, while the rate of production of the furnace is irregular; and of mixing, by which variations in the quality of the iron received by the mixer from the furnaces are evened up, and the quality of the iron delivered to the converter is made practically uniform.

The sand blast is now used for cleaning metallic structures preparatory for painting. It has been so employed for removing the old paint and oil from the One Hundred and Fifty-fifth Street viaduct, New York, and it is similarly applied to locomotive tenders. The foreman painter at the repair shops of the Pittsburg, Cincinnati, Chicago and St. Louis Railway is quoted as believing that, considering the thoroughness of the cleaning and the durability of the work which follows, there is no other method so economical. At the Erie Railway shops crushed quartz sand or quartz and deposit sand, mixed half and half, are used, with an air pressure of between 100 pounds, and the boiler is cleaned in about ten hours.

A rust-proof paint invented by Dr. B. Kossmann, of Charlottenburg, is composed of the peroxides of the cerium group. They are incorporated with linseed oil and varnish, to which is added as a drier a portion of linseed oil boiled with a mixture of boric acid and the peroxides. The resulting paint can be colored with graphite, lampblack, heavy spar, etc., and is said to fulfill all the requirements exacted of such a composition, namely, a sufficient oxygen content to insure the resinification of the linseed varnish, and freedom from any metallic base capable of setting up an electric action with iron, and so causing the formation of rust.

METEOROLOGY. Temperature.—Among the general conclusions from his kite-flying experiments at Blue Hill, Mass., presented by A. Lawrence Rotch to the Royal Meteorological Society in October, 1898, he finds, that as a rule the wind steadily increases with elevation, confirming the measurements made upon clouds. The tendency of the kites as they rise is to come into a current from the west, and it is possible, with no great difference in height, to find currents almost diametrically opposed to each other. The decrease of temperature with increasing elevation varies under different conditions. On most days when there are no clouds the temperature falls at the diabatic rate for unsaturated air—or 1° F. for each 180 feet of ascent, to the height of a mile or more. On fair days with clouds the fall is at this rate to the base of the cloud; in the cloud the rate of fall is slow, and it is still slower above the cloud. The diurnal change in temperature in the free air nearly disappears at about 2,500 feet, much lower than has been hitherto supposed. During calm nights there is a marked inversion of temperature, so that the air near the ground is much colder than at the height of a few hundred feet; indeed, on some occasions the air may be colder at the ground than at the height of several thousand

feet. Daily kite flights confirm the theory that temperature changes in the upper air are cyclonic in character, and are due to the passage of warm and cold waves, which are more strongly felt in the upper air than near the ground. The changes with altitude which precede a warm wave are these: During the day a decrease of temperature at the adiabatic rates from the ground up to more than 1,000 feet, then a sudden rise of temperature, amounting to perhaps 15°, followed by a slow fall. Clouds form when the dew-point of the warm current, which overflows the cold current, is sufficiently high. Such conditions announce the arrival of a warm wave from eight to twenty-four hours in advance of its appearance at the earth's surface. The conditions that indicate the coming of a cold wave are a rapid fall of temperature, which exceeds the adiabatic rate up to about 1,000 feet, and above that is at the adiabatic rate to 3,000 feet higher. During the prevalence of the cold wave the temperature at the height of a mile, which is sometimes its upper limit, may be 25° or 30° lower than at the ground. After the cold wave has passed, and with the coming of a southeast storm, the temperature rises rapidly up to a height of 1,000 or 2,000 feet, and then slowly falls. Cloud usually occurs when the temperature begins to fall, and sometimes this cloud extends downward to the earth as a fog. The relative humidity generally increases to saturation in the clouds and above them rapidly decreases. In clear weather there may be change of relative humidity with altitude, as during the cold wave, or, with no change of temperature vertically, both the absolute and relative humidity may decrease rapidly with increase of altitude, as is the case in areas of high barometric pressure. At the height of half a mile the diurnal changes of relative humidity are the inverse of those at the ground. In brief, then, during fair weather in the upper air the days are relatively cold and damp, while the nights are warm and dry, as compared with surface conditions. Electricity is usually noticed on the kite wire whenever the altitude of the kite exceeds 1,700 feet. At higher altitudes, as well as during snowstorms and near thunderstorms, the potential increases, and is sufficient to cause strong sparking discharges. It therefore appears to be only necessary to tap the great atmospheric reservoir to obtain an inexhaustible supply of electricity, which, perhaps, may be applied to the service of man. Kites are frequently employed on Blue Hill to measure the heights of certain low and uniform clouds which could not be measured by either photographic or visual theodolites. From the traces of the barometer and hygrometer the thickness of clouds may be determined.

In addition to a formerly published investigation by Dr. O. Pettersson, based on observations made during about twenty years on the Norwegian coast, going to show that certain relations exist between the behavior of the Gulf Stream and the subsequent general character of the weather over Europe, confirmatory results, based on a longer series of observations, are published by Dr. W. Meinhardus, of Berlin, in the "Meteorologische Zeitschrift." His article, "On the Meteorological Relations between the North Atlantic Ocean and Europe during the Winter Half Year," shows that a good prediction of the temperature over a large area may be made with a considerable probability of success, and that, generally speaking, a high (or low) temperature of the Gulf Stream on the Norwegian coast in the first part of the winter (November to January) is usually followed by a high (or low) air temperature in central Europe in the latter part of the winter (February to March) and the early spring (March and April).

The subject of mild winters has been discussed by Dr. G. Hellmann, upon the basis of temperature observations in Berlin since the early part of the last century. The author considers the frequency and succession of mild winters; their general character; and the kind of summer weather that may be expected after a mild winter—defining as a mild winter, for the purpose of the investigation, one in which the mean temperature of December and January is above the average, and in which the sum of the deviations of both amounts to at least 2° C. A table giving the number of deviations from November to August shows that since 1720 there have been 48 mild winters in Berlin, and that they have never been isolated, but occur in groups of two or three years, and especially after a longer period of colder winters. The intervals between two groups of mild winters vary from nine to fourteen years. The table shows that these mild winters are usually of long duration, and that the chances are nineteen to twenty-one that after a mild winter February will also have a high mean temperature. The greatest deviations of temperature usually occur in January. Whether a mild winter will be damp or dry depends chiefly upon the distribution of atmospheric pressure. Taking July and August as representing the summer, the author has further found that the chances are 44 per cent. that a warm summer will follow a moderately mild winter, while after a very mild winter the chances of a warm summer amounts to 68 per cent. Cases of mild dry winters are rare; and if the deficient rainfall is not compensated for during springtime, the summer is likely to be wet and consequently cool.

A chart of yearly isotherms and isabnormals of the sea surface, prepared by Dr. Koppen, shows, in addition to the isotherms, those districts where a temperature anomaly of more than 2° C. exists. The areas where the water is too cold or is too hot, or which are thermically neutral, are distinguished by different shadings. It is seen on this map that between the equator and latitude 40° S. cold currents extend like long tongues from the west coasts of South Africa and South America toward the west, while north of the equator analogous currents are developed to a much less extent. On the coast of the Sahara the sea temperature is only slightly below the normal value of the latitude. On the western sides of the oceans, in similar latitudes, warm currents exist trending northward. In the South Atlantic the warm and cold currents are nearly equalized. In the South Pacific the cold current and in the South Indian Ocean the warm current predominates, as it does also in the northern hemisphere, and more particularly in the North Atlantic. It is also seen that an area of cold water occurs on the western edge of the warm currents, and between them and the continents, where the latter stretch northward as far as the zone of westerly winds, viz., on the east coasts of Asia and North and South America.

Among the noteworthy facts brought out in a paper by Dr. Alexander Buchan on the mean atmospheric pressure and temperature of the British Islands for forty years, 1856 to 1895, is the down-curling of the annual isobaric lines as they cross the Irish Sea and St. George's Channel. Another distinct feature of the isobars is the influence of the land in increasing the barometric pressures and the opposite influence of the sea in depressing the isobars. The author finds that where a winter climate is sought—as for invalids, offering in the highest degree the combined qualities of mildness and dryness, anywhere offered by the British Islands—such a climate is to be found on the shores of the Channel, from about Dover to Portland.

From his investigation of the "cold days" of

May, in which he examined the weather charts for the past twenty years, Dr. R. Hennig, of Berlin, finds that these days are, with rare exceptions, a yearly recurring phenomenon, but do not affect the same parts of Europe; that the period of their occurrence varies considerably. It may embrace the whole month, but most frequently takes place during the second decade, and usually lasts for three or four days; that the phenomenon generally begins during stormy northwest winds, accompanied with frequent showers of rain, snow, or hail. Night frosts and hoarfrost sometimes occur during the early period of this unsettled weather, but generally take place after the passage of areas of low barometric pressure. During this cold period an extensive area of high pressure obtains over the ocean adjacent to the western or northwestern shores of Europe. The subject was investigated before by Dove, in 1856, and Von Bezold, in 1882.

From the examination of the weather charts issued from the Meteorological Office of Paris, particularly those from January to March, 1895, the Rev. M. Decheirans, of the St. Louis Observatory, Jersey, has found that the extremes of heat and cold, observed respectively in areas of low and high barometric pressures, do not occur at the centers of those systems, but in the neighborhood of the mean isobars; also that the descending current of air in an area of high pressure escapes along divergent lines, and that it is principally due to this divergence that the cold usual in anticyclones is observed. Similarly, the relatively high temperature in areas of low pressure is due to the convergence of ascending air currents.

The bulletin of the Society of Naturalists of Moscow contains an account of observations made by M. Walther, of Jena, in the transcasian country upon the temperature of the surface of the ground. The temperature of the air was registered on a day in September, 1897, every hour from five o'clock in the morning till ten o'clock in the evening, upon an isolated hill about 35 feet high; and the temperatures of the sand, the clayey soil, and an olive-brown dolomite were taken by means of a special thermometer. Independently of the angle of incidence of the rays of the sun, M. Walther took note of a considerable influence of the wind. The removal of the thermometer situated in the wind to a sheltered spot gave a rise of temperature of 6.5° C. for the sand, 4.5° C. for the clay, and 4.5° C. for the rock, the temperature of the air remaining the same. The temperature of the air reached its greatest height at two o'clock, when it was 38.5° C.; that of the clay soon rose to 46.5° C.; and even a little before two o'clock the temperature of the sand was 48.5° C. The rock did not reach its highest temperature till three o'clock. The setting of the sun had considerable effect; and shortly after it the temperature curve of the soil cut that of the air and continued to be several degrees below it. Rain had a still greater effect. Ahnger observed in the desert on the same day that the temperature fell after a heavy shower from 30° C. to 10° C. M. Walther relies on sudden changes like these to explain the disintegration of rocks and their breaking up by parallel fissures.

Precipitation.—In a bulletin of the Weather Bureau of the United States Department of Agriculture, on the rainfall of the United States, prepared by Mr. A. J. Henry, observations obtained from the largest and most trustworthy registers are compared, and annual, seasonal, and other charts are discussed. Special attention is given to the rainfall of the crop-growing season as being a matter of most vital interest. As regards the monthly distribution of rainfall by districts and types according to natural boundaries, the conditions favor-

able for rainfall are found to be nearness to the ocean, proximity to the track of storms, and the position of mountain ranges. The rainfall of the North Pacific coast is discussed as an example of the combined effect of all three of these conditions. There a wet season prevails from October to March, and the summer is nearly rainless, except in northern California and parts of Oregon and Washington. About half the yearly fall occurs between December and February. In a narrow belt on the northwest coast, extending from Cape Flattery to about the middle of the Oregon coast, and some distance inland, the annual amount of rain is more than 50 inches, and at some points is 100 inches. To the east and north of this, the annual rainfall diminishes, and is least on the lowlands and valleys between the Coast Range on the west and the Sierra Nevada and the Cascade Range on the east, where the amount is in some cases not more than 10 inches, though in years of plentiful rainfall it may rise to 20 inches in the best-watered parts. East of the Rocky mountains the annual rainfall ranges from 10 to 18 inches, and increases slowly to 60 inches on the Florida and Gulf coasts, and to from 40 to 50 inches in the Eastern States. It, however, gradually declines from the Atlantic coast westward and from the Gulf coast northward. The large majority of excessive rains are said to occur west of longitude 105° west, and principally in the summer months, in connection with afternoon thunderstorms. They occasionally take place on the track of the West India hurricanes, and are more abundant on the Gulf and South Atlantic coasts than at inland places. The greatest rates of rainfall per hour, estimated from periods of five minutes at the Weather Bureau stations that possess self-registering gauges, were 9 inches at Bismarck, N. Dak., 8.4 inches at St. Paul, Minn., and 8.2 inches at New Orleans.

A formation of small cumulus clouds over a fire has been observed by Mr. R. de C. Ward, at the Harvard College Observatory, Arequipa, Peru, and is described by him in the "United States Weather Review." Behind the western flank of Mount Charchani, and about 15 miles away, a column of smoke was rising from a considerable fire of bushwood, at a probable height of about 14,000 feet above sea level. While looking at the smoke, Mr. Ward noticed the formation of a small cumulus cloud directly over it, and between 4,000 and 5,000 feet above it, when the sky was almost clear and there was little wind. The cloud soon disappeared, and was succeeded by another, which again disappeared within five minutes. Eight distinct cloudlets were seen thus to form and disappear within half an hour, after which the smoke vanished. Two previous similar cases are referred to by Mr. Ward—one recorded by Prof. Espy, and the other described in "Science" of Jan. 8, 1897.

The report of the International Meteorological Committee on cloud observations records nearly 8,000 measurements of heights and velocities made at Upsala Observatory, Sweden, during the year beginning May, 1896, 1,635 of which were taken by photography. The discussion of the results shows that the annual deviation of the mean height of the clouds is very pronounced, with a maximum during June and July and a minimum during winter. During the summer season the mean height of the cirrus is 8,176 metres, and that of the cumulus 1,685 metres. The heights of the upper and middle level clouds are lower than at the Blue Hill Observatory in Massachusetts, while the lower forms are at nearly the same level; this is accounted for as probably a natural effect of the difference of position of the two stations. The velocity of the upper clouds is greater than that of the lower, and the

velocity of all clouds is greater in winter than in summer.

It has been found by C. T. R. Nilson that clouds may be produced by the action of ultraviolet light on moist air. When the light from an arc-lamp was brought to a focus by means of a quartz lens within a vessel containing moist, dust-free air, a bluish fog became visible in the course of a few minutes along the path of the light. The cloud particles remained in suspension for hours after the light was cut off. The phenomenon was shown even in unsaturated air, but the faint blue haze which then developed took much longer to form. When the radiation was not sufficiently intense to show these effects, a dense fog could still be obtained by bringing about slight supersaturation by expansion. The clouds, unlike those obtained by Tyndall and by Aitken by the action of light on various vapors, are due to the ultraviolet rays above; for if a thin sheet of glass or mica (substances which are opaque to those rays) be interposed, not a trace of fog or rain is formed, even when a high degree of supersaturation is brought about by expansion. It is possible that the small particles to which the blue of the sky is due are the result of this action of the ultraviolet rays, of which sunlight, when it first enters our atmosphere, doubtless contains a plentiful supply.

In connection with the attempts to establish a twenty-six day period for meteorological phenomena, Prof. Arthur Schuster is cited as being led to think, from a critical examination of the published investigations on the subject, that "although the magnetic phenomena and the occurrence of thunderstorms seem to be affected by a period of twenty-six days and of its first multiple, the subject requires a good deal of further study before we can be sure as to the exact nature of the period. Even though it may be considered as proved, it must not necessarily be assumed that it is due to solar action. If it is a question merely of magnetic disturbances, there does not seem to be any great improbability, however, that some periodicity may be connected with the sun's rotation about its axis, especially at times of great sun-spot activity."

Winds.—Addressing the Royal Meteorological Society upon the progressive movements of the cores of the permanent high-pressure areas which are found to be associated with different localities at different times of the year, Major H. E. Rawson referred to previous investigations by Abercromby, Scott, Loomis, H. C. Russell, and Buchan, and then proceeded to give the results of an examination which he had made of all the available synoptic weather charts for the eleven years 1881 to 1891. During this period there were 212 cases in which the center or core of an anticyclonic system was over the British Isles, and of these 180 were due to the Atlantic system, 41 to the Scandinavian, 17 to the Greenland system, 22 to the Atlantic and Scandinavian systems extending and merging together, and 2 to the same thing occurring in the case of the Atlantic and Greenland systems. It is thus evident that the greater number of the British cyclones are owing to the Atlantic system. They occur in all months, but more especially in January, June, and October, and are least frequent in April and November. When such cyclones move away from the British area the direction is very much influenced by the season of the year; by far the largest number drift off in some direction between northeast, through east to south, and take the more southerly course in December, January, and February. A few between April and July move west or southwest, and still fewer north or northwest.

The report of the Wind Force Committee of the Royal Meteorological Society giving the results of

experiments with anemometers attached to the rigging of ships at different heights, finds as general facts deducible from them, that the instruments must have a fairly clear exposure to be of much value, and that for a mile at least all around there should be no hills or anything higher than the position they occupy; that on a ship the results may be considered fairly accurately determined by having the instrument 50 feet above the hull, but that on land it will generally be necessary to carry the instruments somewhat higher, the height to be determined by the local conditions; that no other form of anemometer offers such advantages as the pressure tube, from the fact that it can be run up and secured easily at the desired height above a building, and that the pipes and stays can be slight so as to offer no resistance to the wind and cause no deflecting currents. The committee found that the ship itself modified the indications of the lower anemometers, while some low hills and trees a quarter of a mile away affected the wind velocity from the quarters in which they lay.

In the instrument of Prof. F. E. Nipher for measuring wind pressure, two equal thin metal disks, $2\frac{1}{4}$ inches in diameter, having beveled rims, are screwed together so as to leave a small space between, into which a connecting tube is passed through the center of one of the disks. The end of the tube is flush with the inner surface of the disk, and the interspace is filled up with a certain number of layers of wire screen which project at least half an inch beyond the edges of the metal disks. When this simple device is placed in a stream of air, it is found that the effects of rarefaction and compression, set up at different parts of the porous screen, neutralize each other, so that the pressure at the mouth of the tube is the same as the true intrinsic pressure of the external air. This property of the collector was severely tested by thrusting it out of a carriage window in a train which was traveling at the rate of sixty miles an hour. No effect on the gauge could be noticed, although the instrument was sufficiently tangent to the edge. The gauge employed was a water manometer consisting of a cylindrical vessel partly filled with water, with a straight glass tube leading out from the bottom and inclined at 5 in 100 to the horizontal. The open end of this tube was in communication with a collector of the form suggested by Abbe so as to secure a standard pressure of comparison.

From observations of dust particles in the atmosphere made at Mont Salève in Savoy, the oasis of Biskra, the village of Tortola and the forest of Loimola in Finland, the neighborhood of Cristian-sund on the west coast of Norway, and the island of Grip, M. G. Melander finds that the number of particles generally increases with the dryness of the air. This fact seems adequate to account for the influence of the direction of the wind that has been observed at different stations. Aitken's theory that the number of dust particles diminishes as the wind increases in strength seems to be liable to modification in the light of these observations and may be regarded as subject to local conditions. M. Melander further finds that the vapors from a saline solution carry, even at the ordinary temperature, particles of salt in suspension or solution; the number of particles in this case increases in the vicinity of the liquid. He concludes that, at least in many cases, particles of salt suspended in the atmosphere are causes of fogs, clouds, and rain. This hypothesis is confirmed by the deposits left by the evaporation of raindrops on a plate of glass. There seems to be an infinite number of saline particles constantly in the atmosphere which when dry are almost without action, are light and constantly in-

visible, but when sufficient water is present, condense into fine drops and become a visible cloud.

From a study of the records—1763 to 1897—R. O. Mossman finds that, in London, snow is of most frequent occurrence with north and east winds, and least common with southwest winds. Hails, however, occur most often with west, northwest, and north winds. Gales are most frequent with west and south winds. The greatest number of thunderstorms, both in summer and winter, occur with west winds, although the values in summer are also high with east, southeast, and south winds. The greatest number of fogs are recorded on calm days, and these are closely followed by days on which the wind blows from the west.

In observations on the transparency of haze during 1897, the Hon. F. A. Rollo Russell found that the greatest clearness occurred with winds from the westward, and the least clearness with winds from the eastward. The highest mean visibility was 24 miles with the west winds, and the lowest mean visibility was 10.6 miles with northeast winds.

Miscellaneous.—The average height of the meteorograph in Mr. A. Lawrence Rotch's kite-flying experiments at Blue Hill, Mass., during August, 1898, was 7,800 feet, and on August 26 the meteorograph was raised higher than ever before, its altitude, determined trigonometrically, being 11,444 feet above Blue Hill, or 12,074 feet above the adjacent sea. The meteorograph was suspended from the top kite, a Lamson aëro-curve with 71 square feet of lifting surface; and 4 kites of the modified Hargrave form, with a combined lifting surface of 149 square feet, aided to lift the wire, which was 5 miles long and weighed 75 pounds. The total weight of the kites, lines, and apparatus in the air was 112 pounds. The meteorograph left the ground at 10.40 A. M., attained its greatest height at 4.15 P. M., and reached the ground at 8.40 P. M. It passed through cumulus clouds about three quarters of a mile from the earth, and above them the air was found to be very dry. The maximum wind velocity, 40 miles an hour, was reached at the height of 11,000 feet, while 100 feet higher the wind blew at the rate of 82 miles an hour from the southwest. On the hill at this time the wind was west, and its velocity was 22 miles an hour. The temperature of the air there was 72° when it was 38° in the free air 11,444 feet above.

A phenomenon, called Barisal guns in India and *Mistpoefers* in Europe, sounds like distant reports of cannon or explosions, the causes of which are not known, has received much attention of late years. A book concerning them has been published by M. E. Van den Broeck, in which hundreds of instances are cited and described by the author or quoted from authentic sources, in all of which an explanation is sought. The sounds appear to be heard most frequently near the sea, and in warm weather. Communications made by Samuel W. Kain and others to the "United States Monthly Weather Review," show that the sounds are very frequent on fine, calm summer days in the Bay of Fundy. Prof. Cleveland Abbe has pointed out that there is a resemblance between the sounds as they are described and sounds made by drumfish in aquaria; and that a large drumfish will give out a sound that may be heard a long distance away. Prof. Abbe suggests that the noises proceeding from the ocean may have different characters and origins. Some may be due to the drumfish; others to breakers dashing on rocky cliffs, whence heavy thuds spread for many miles through the air and many miles farther through the ocean; others to the cracking of rocks in ledges near the surface; and others, occasionally, to genuine earthquakes occurring at the bottom

of the neighboring ocean. The subject is one that affords great scope for study.

The second meeting of the International Aeronautical Congress, at Hamburg, March 31 to April 4, was largely occupied with the discussion of questions relating to the equipment of *ballons sondés*, or captive balloons, and manned balloons. The congress recommended, among other things, that the instrumental equipment of manned balloons should be uniform, so far as possible, and that for each *ballon sondé* an instrument should be provided to serve as a basis of comparison with perfected instruments whose construction may change from one ascent to another as improvements may be attempted in them. Mr. A. Lawrence Rotch, of Blue Hill Observatory, Mass., was present and made a report on the use of kites at his observatory. The chief of the United States Weather Bureau sent a letter explaining the proposed use of kites to obtain data for a daily synoptic weather chart over the United States at the height of a mile or more. Resolutions were passed favoring the use of kites at suitable stations. It was announced that M. Teisserene de Bort was equipping a kite station at Trappes, near Paris, after the model of Blue Hill, and Gen. Rykatcheff stated that an anemograph of his invention was being raised with Hargrave kites at St. Petersburg.

A work on the meteorology of the Southern Ocean, between the Cape of Good Hope and New Zealand, was mentioned in the English Meteorological Council for 1896 as having then been under preparation; and as no charts for that area had been previously published by the office, the work was expected to prove of much value. The results of the weather forecasts continued to show a considerable amount of success; for those published in the morning newspapers, a complete and partial success of 81 per cent. was claimed for the year in question, while for the special forecasts during the hay harvest, the figures showed that 88 per cent. were useful. A still greater success was claimed for the warnings of storms, of which 91.5 per cent. were justified. For the study of the climatology of the British Isles, the office continued to subsidize a small number of observatories of the highest class, and maintain an intimate relationship with them, and to supplement this information by observations from a large number of voluntary stations.

In an analysis of the duration of sunshine in North America, presented to the German Meteorological Society at its triennial meeting in April, Prof. Dr. Van Bebbler stated that the amount of sunshine increases rapidly toward the south as in Europe, and reaches a maximum in Arizona. As in Europe, the mountains receive the most morning sunshine, but, unlike Europe, the annual maximum in America occurs in July, and in the South in June. The speaker inferred that the characteristics of the Northern and Southern people are to be attributed to climatic conditions, and are especially affected by the deviation of sunshine.

In an address to the Royal Meteorological Society, Mr. A. W. Clayden spoke of the extreme value of photographic methods of recording the movements of instruments, and of the real importance of preserving photographic records of all sorts of unusual meteorological phenomena, and emphasized the necessity of companion photographs, showing the same scene under normal conditions. Having referred to some of the puzzles offered by lightning photographs, the lecturer said that he had repeatedly found that a single discharge lasted several seconds. He had several years before been led to the proof that the "black" flashes shown in photographs were merely a photographic phenomenon, but it is one that still remains unexplained.

The author's method of measuring cloud altitudes differs from other methods in that he uses the sun as a reference point.

In seeking an explanation of the *aurora borealis*, Gustav Wendt observes that oxygen is a paramagnetic element, and assumes polarity by the presence of the earth as a permanent magnet. Hence near the magnetic pole, the magnetic attraction occasions the descent of paramagnetic matter, especially of oxygen or condensed oxygen, and also of dust of all kinds, including occasionally dust of meteoric iron, etc. The northern lights may therefore be regarded as an electrical phenomenon arising when oxygen and other paramagnetic matter are continuously drawn down from the higher regions of the atmosphere with the effect of setting up electric currents. If, as a large series of accurate analyses indicates, the air of the mountains and moors of the Scottish highlands generally contains 21 per cent. of oxygen while in large towns, especially in fogs, the oxygen content sinks to 20.8 per cent., and in deep mines to 20.2 per cent., the fact may be explained by the circumstance that, besides the general diffusion, the magnetic attraction is brought into play. Every large mountain must possess the mountain magnetism in a larger or smaller degree. The agreeable sensation felt in lofty yet protected regions is usually owing to the presence of condensed oxygen drawn downward in consequence of the "mountain magnetism."

A sandstorm from the Sahara, which occurred at the Canary Islands about the middle of February, appears to have been felt over a wide area. On Feb. 15, when, in latitude 22.5° north, longitude 17.25° west, the steamer "Roslyn Castle" passed through the storm, large quantities of fine sand fell upon the deck and adhered to the sails and rigging. The steamer entered the dust cloud between five and ten miles off Cape Blanco, and continued in it for nearly two days. It extended many miles out to sea, and was so dense that objects on deck could not be clearly distinguished, and officers and men suffered great discomfort in their eyes. The vessel was in considerable danger passing through the Canaries. On Feb. 15, at Funchal, the sun had the appearance of the moon, and what seemed a fog of unusual and unprecedented character hung over the island. The dust penetrated everywhere. Although a gale was blowing at Madeira, there was no wind when passing through the dust. A sample of the dust was analyzed by Dr. Leonard Dobson, who publishes the results of his examination in the "Chemical News" of March 18, 1898.

The directors of the high- and the low-level observatories at Ben Nevis, in announcing that they would have to be closed for want of funds, in October, 1898, declared that by the establishment of those observatories, and the unique observations made at them, a great experiment had been carried out with signal success, and that in a large sense the objects aimed at had been attained. A long series of hourly observations had been obtained by night and by day without a break over a period of fifteen years, including eye and other observations made outside in the severe climate of Ben Nevis. These formed a unique series of observations, nothing like them having been as yet made at any other high-level observatory in the world. Funds were fortunately supplied a few days after the announcement referred to was made, and the necessity of closing the observatories has been avoided.

METHODISTS. I. Methodist Episcopal Church.—The following is a summary of the statistics of this Church as given in the "Methodist Yearbook" for 1899. In a few of the conferences meeting near the end of 1898 the statistical reports had not been completed at the time the "Year-

book" went to press. For these the figures are taken from the reports for 1897. There will therefore be some slight differences between the totals in this table and those which will appear in the book of "Minutes of the Annual Conferences," which was to appear later and include all their later returns: Whole number of annual conferences, 147; which are classified as conferences, 124; mission conferences (including the newly organized Congo and South Japan mission conferences), 11, and missions, 12; number of ministers in full connection and on trial (including supernumeraries and superannuates), 17,500; of local preachers, 14,610; of lay members (full members and probationers), 2,886,189; of Sunday schools, 31,866, with 349,026 officers and teachers and 2,676,297 pupils; of churches, 26,657, valued at \$113,781,905; of parsonages, 10,604, having a probable value of \$17,832,092. The increase of members and probationers during the year is estimated at 33,000.

The receipts of the Board of Education for the year covered by its report for 1898 were \$93,308. The receipts from returned loans were \$15,261, a larger sum than in any previous year. The board had aided with its funds 1,825 students of 27 different nationalities. Of these, 1,129 were preparing for the ministry or for missionary work, and 279 of them were women. The whole number of students aided from the beginning of the board's work in 1873 to July, 1898, was 8,909. The Sunday-school Children's fund, instituted in 1866, has become a very important feature in the work of the Church. The collections for it, taken annually on the second Sunday in June, reached \$84,000 on the second year after its institution, and the amount has since been largely increased. The educational institutions of the Church include 26 theological institutions, 53 colleges and universities, 63 classical seminaries, 8 institutions exclusively for women, 99 foreign mission schools, and 4 missionary institutes and Bible training schools; making a total, after deducting 23 schools duplicated, of 230 schools, or 3 more than in 1897. These institutions have grounds and buildings valued at \$17,132,501, endowments aggregating \$12,299,601, of which \$10,149,375 are productive; are in debt \$1,924,815, and return 3,143 professors and 46,708 students.

The third International Convention of the Epworth League was held in Toronto, Ontario, July 15 to 18, and was attended by an estimated number of 20,000 persons, 15,000 of whom were registered. The discussions held during the four days were participated in by about 236 readers and speakers. Resolutions were adopted upholding temperance and Sabbath observance; declaring it a Christian duty to participate in all matters that concern the national, State, and municipal government; and expressing a desire for the establishment of arbitration in the settlement of international questions and perpetual peace between the United States and Great Britain.

The General Committee of Church Extension met in Boston, Mass., Nov. 8. The receipts of the year had been \$173,720 for the general fund and \$188,653 for the Loan fund. While the receipts to the general fund had decreased \$3,419, the joint accounts of both funds showed a net increase of \$14,011. The total sum of \$172,337 had been authorized to be given out, of which the board had paid \$80,656 and promised \$72,222, while the balance would be carried forward into the new year. The plan of procuring new churches by special gifts of \$250 had invited contributors to select this special work. During the year 18 churches had been added to the number previously reported as secured in this way, making in all 623, of an average cost, when dedicated, of more than \$2,000 each. Many of

these churches had given place, as population and the strength of the people had increased, to larger and more valuable buildings. By a system of special gifts of \$100 each, what are called "mountain churches" are procured, at a cost, on the average, of \$600 or \$700 each. While the principal field of this work is the mountain region of the central South, it has extended into other parts of the country. The churches are situated chiefly in small villages and rural districts, and are built with the co-operation of the resident people. Ten such churches had been added during the year, making the whole number 90. A much larger number of churches of this class had been aided out of the general treasury in the ordinary course of the work. The capital of the Loan fund stood at \$1,043,310, while churches borrowing had returned, in all, during the history of the society, \$1,169,711, showing an aggregate for use by loans to date of \$2,213,021. In this way 3,315 different churches had been aided, furnishing sittings for about 965,000 hearers, and worth in the aggregate, nearly \$12,000,000.

The seventeenth annual meeting of the Woman's Home Missionary Society was held at Minneapolis, Minn., Oct. 19. The total cash receipts for the year had been \$135,164, and the expenditures \$131,430. Requests to the amount of \$36,000 had been made to the society during the year, of which \$13,000 had been paid in. Reports were made of work in the South, where the society had 15 homes, with religious, literary, and industrial schools; among the Indians of New Mexico and the frontier, with a school for Indian girls at Lyndon, Wash.; among the Spanish-Americans; in Alaska; in Utah, where 13 missionaries and deaconesses are laboring; among immigrants in New York, Boston, and Philadelphia; and among the Chinese in San Francisco. The society had 20 homes for deaconesses, besides several centers of work, with 165 deaconesses in the field, and a training school for missionaries and deaconesses in Washington, D. C., for which a new and larger building is needed and projected, and homes for orphan and destitute children at York, Neb., Tivoli, N. Y., and Urbana, Ill., with about 175 children under care and in training.

The General Committee of the Freedmen's Aid and Southern Education Society met in Boston, Mass., Nov. 7. The treasurer reported that the total receipts for the year had been \$122,209, of which \$80,932 were contributions from the conferences. The disbursements had been \$126,756. The apportionments for the ensuing year were made on the basis of \$248,950 as the total amount to be raised. The regret of the committee was expressed by resolution at the fact that the collections from the churches for the society had been decreasing. The society maintained 1 theological seminary, 12 collegiate and 10 academic institutions among the colored people, and 3 colleges and 20 academic schools among white people.

The General Missionary Committee met at Providence, R. I., Nov. 9 to 15. The treasurer reported that the receipts for the year ending Oct. 31 had been \$1,181,789, being \$49,848 more than those of the preceding year. The expenditures had been \$1,196,802, of which \$626,202 were charged to the account of foreign missions, and the rest to domestic. The total debt in the treasury was \$177,417, having been diminished \$98,731. The sum of \$60,838 had been received in the form of "special gifts."

Appropriations were made for the missionary work of the ensuing year as follows: For Germany, \$36,575; for Switzerland, \$7,390; for Norway, \$12,421; for Sweden, \$16,256; for Denmark, \$7,490; for Finland and St. Petersburg, \$5,124; for

Bulgaria, \$8,868; for Italy, \$40,511; for South America, \$75,620; for Mexico, \$79,275; for Africa, \$24,635; for China, \$118,254; for Japan, \$49,272; for Korea, \$16,752; for India, \$142,886; for Malaysia, \$9,855; total for foreign missions, \$621,184. For missions in the United States (classified as Welsh, Danish, Norwegian and Danish, German, French, Spanish, Chinese, Japanese, Bohemian and Hungarian, Italian, Portuguese, American Indian, and English-speaking), \$413,032. The miscellaneous appropriations, for salaries, incidental expenses, etc., amounted to \$110,000, making the total amount appropriated \$1,177,206. In addition to this appropriations were made contingently for the Congo Mission Conference, Alaska, Italian work in Louisiana, and the establishment of a mission in Puerto Rico, amounting in all to \$48,000.

The twenty-ninth annual meeting of the General Executive Committee of the Woman's Foreign Missionary Society was held at Indianapolis, Ind., in November. The receipts for the year had been \$328,488, \$14,550 more than those of the previous year, and the largest in the history of the society. Three missionaries had been sent to China during the year, 7 to India, 3 to Japan, 1 to Burmah, and 1 to Africa, while 9 had returned from the field for rest. Eight missionary candidates had been accepted. The Felts Missionary Institute, at Herkimer, N. Y., the gift of Mr. and Mrs. George P. Felts, was accepted as a school for the training of Christian workers.

The bishops of this Church, at their semiannual meeting in November, adopted an address to the members and friends of the Church inviting them to contribute for a twentieth century thank offering of \$20,000,000, "over and above all ordinary contributions for the maintenance and spread of the 'kingdom of Christ, which certainly ought not to be diminished'"—the subscription to be paid within three years from Jan. 1, 1899. Of this sum, it was proposed to give \$10,000,000 for the benefit of the universities, theological seminaries, colleges, and other schools; and \$10,000,000 for the hospitals, orphanages, homes for the aged, and other charitable institutions of the Church, and for payment of debts on the various Church properties. A General Executive Commission was nominated for the accomplishment of this scheme, the first meeting of which was appointed to be held in the city of New York, Jan. 5, 1899.

II. Methodist Episcopal Church, South.—The tables of religious statistics published in the "Independent," New York, Jan. 5, 1899, give this Church, for 1898, 5,901 ministers, 13,995 churches, and 1,458,345 communicants.

The thirteenth General Conference met in Baltimore, Md., May 5. The episcopal address showed that the number of itinerant preachers had increased since the last General Conference 502, and the membership of the Church 123,221. The whole number of itinerant preachers was 5,989; of local preachers, 5,685; and of members, 1,478,431. The aggregate value of the Church property of all kinds was estimated at a little more than \$35,000,000, showing an increase of about \$2,000,000 during the four years. The Sunday-school reports gave the number of such schools as 14,188, with 104,135 teachers and 851,488 pupils, or 825 schools, 8,459 teachers, and 86,202 pupils more than in 1894. The Church had under its control 76 educational institutions of all grades, with more than 1,000 teachers, 16,000 students, property valued at \$4,661,850, and endowments amounting to \$2,189,695. The accounts of the several boards and benevolent societies showed that the whole amount paid out by them during the quadrennium had been \$2,067,955. On an indebtedness of \$129,144 lying against the

Missionary Society in 1894, \$117,559 had been paid, while the remainder was provided for by subscriptions not yet matured. The publishing house had done a business within the quadrennium aggregating \$1,378,858, and afforded a dividend of \$60,000 for the superannuated preachers. Its plant was out of debt, and was valued at \$895,000. A commission was instituted to ascertain and report to the next session of the General Conference what is the constitution of the Church, and also, separately, such amendments as they may recommend to render it symmetrical in form and substance, in order that the next General Conference may, if it see fit, send the same around to the several annual Conferences for ratification and adoption. Rules were adopted requiring inquiry to be made into the character of candidates for Church membership before they are received; and that local ministers coming to the Church from other churches be subjected to examination, excepting traveling preachers from the British Wesleyan and Canadian conferences. The sense of the General Conference was expressed, by resolution, "that our Methodism has never recognized or encouraged any such spirit as candidacy for the various connectional or other offices of the Church; that we do hereby enter our serious protest against the publication of any article, either editorial or communication, in any of our Church organs or other Church periodicals, and against any other methods which tend to foster in any measure an unwarranted rivalry for official preferment." A rule was adopted "that any traveling or local preacher who shall hold public religious services within the bounds of any mission, circuit, or station, when requested by the preacher in charge not to hold such services, shall be deemed guilty of imprudent conduct, and shall be dealt with as the law provides in such cases." The Conference approved and adopted the acts passed by the Joint Commission on Federation of the Methodist Episcopal Church, South, and the Methodist Episcopal Church, and agreed to recognize them as in force when they shall have been adopted by the General Conference of the Methodist Episcopal Church. The committee on this subject was reappointed, with continued power. A committee was appointed to co-operate in preparing a complete doctrinal catechism for both churches, a work in which other Methodist churches were invited to join. Bishop O. P. Fitzgerald was requested to prepare an autobiographical volume concerning the times in which he had lived and the men of those times. Presiding elders were advised to see that missionary institutes be held once a year in their respective districts; that each one of them preach at least one sermon a year on missions in each of the charges of his district; and that at least one missionary meeting be held in each charge during the year. An attempt was decided upon to raise \$1,500,000 during the year 1900 for educational purposes; 76 per cent. of the money raised to be retained by the annual conferences, 18 per cent. to be applied to the theological department of Vanderbilt University, and 6 per cent. to be used as a general fund. Two new bishops were elected, viz., the Rev. Warren A. Chandler, D. D., and the Rev. Henry C. Morrison, D. D. The Conference indorsed the Woman's Christian Temperance Union in all its temperance work, and bid it godspeed in all its efforts to extirpate the liquor traffic. The Sabbath resolution reaffirmed the faith of the Conference in the Sabbath as divinely instituted, and declared the conviction "that it is unlawful for individuals, corporations, or governments to nullify it or set it aside for gain, convenience, or pleasure, and that we will resist every effort to wrest the day from its legitimate place in God's economy and discourage its

desecration by those who buy and sell, and do ordinary work therein, all of which we believe to be contrary to the spirit and letter of God's law; that we will remain faithful in the observance of the holy Sabbath, and both by word and example testify to its sanctity, and also to its utility as a day of recuperation of body, mind, and spiritual strength." A petition to the President of the United States was approved of, asking him to forbid the transmission of any mails on Sunday, and to order the closing of all post offices throughout the United States on that day; or, if not empowered so to do, to ask authority from Congress to order the same. The Book Committee were authorized to establish a publishing house in Shanghai, China.

The book agents reported to the Book Committee for the year ending March 31 that the total business of the publishing house in all departments amounted to \$336,804 and the total assets to \$898,858; while the liabilities were \$3,313, leaving the net capital \$895,545.

The Woman's Parsonage and Home Mission Society reported to the General Conference that since its foundation, ten years previously, 1,735 parsonages had been built in Southern Methodism, being two thirds of the number accumulated during a whole century prior to its organization. Of this number the society had aided 717. The whole number of parsonages in the Church was 3,765, and their total value was estimated to be \$4,193,782. The sending of supplies to the families of preachers inadequately supported had been systematically carried on. The total amount contributed during the quadrennium, in goods and cash, was estimated at \$15,948.

The Board of Missions met at Nashville, Tenn., and appropriated \$201,916 for the support of the missions during the year, of which \$30,400 were for the Brazil mission; \$27,279 for the China mission; \$5,497 for Korea; \$31,536 for Japan; \$46,927 for the mission conferences of Mexico and the Mexican border; \$12,948 for the Indian Mission Conference; and the remainder for missionary work in the United States.

In promoting the passage of a bill through Congress awarding the sum of \$288,000 to the Book Concern of this Church as compensation for the occupation of the premises of the publication house for military purposes during the civil war, the book agents employed a lobbyist, to whom a considerable proportion of the sum awarded was paid. This was done, as was afterward shown, without consultation with any other officers of the Church, and without the knowledge of the General Conference or of the Church at large; and the fact that any portion of the money was to be paid to a lobby agent was not communicated to the members of the Senate. The fact was learned, however, after the bill had been passed, and some of the Senators stated on the floor of the Senate that they had voted for the bill under a misapprehension, supposing that the Church was to receive the entire benefit of the award. The case was inquired into by a committee of the Senate, who reported July 8, relating the facts as they had found them, and declaring, in conclusion, that they deemed it proper to state "that no censure should rest upon the Methodist Episcopal Church, South, for the acts of its book agent. The Church has been injured by the misconduct of its agents, but for such misconduct it is held utterly blameless. The committee has not thought proper to suggest to the Senate any action concerning the matter, it appearing to the committee that the governing authorities of the Church must be allowed to take such measures as it may think proper after it has been fully acquainted

with the facts concerning the passage of the bill and the final disposition of the money appropriated under it." The bishops of the Church, July 4, adopted a resolution which was duly communicated to the president of the Senate, declaring that, "while reaffirming the justness of our claim, payment of which has been sought for twenty-five years, we insist that the Church can not afford to accept it as a gratuity, or on conditions that reflect upon its honor. Inasmuch, therefore, as some Senators have affirmed on the floor of the Senate that they were induced to support the claim by misleading statements on the part of representatives of the Church—statements, however, which did not affect the merits of our claim—we hereby give this assurance: That if the Senate, by affirmative action, declares that the passage of the bill was due to such misleading statements, we will take the proper steps to have the entire amount returned to the Government.—(Signed) Robert K. Hargrove, Secretary of the College of Bishops."

This letter was regarded as making it appropriate that there should be an expression of opinion on the part of the Senate in response to the conditional proposition to tender to the Government the money paid to the book agents under the terms of the act of March 31, 1898. The committee reported that no new facts had come to its knowledge since its report had been laid before the Senate, and submitted the following resolution, which was adopted: "That the report of the committee made July 8, 1898, be approved, and that no censure should rest upon the Methodist Episcopal Church, South, for the misstatements and concealments of the book agents in connection with the passage of the bill for the payment of the claim referred to in the letter of the bishops now under consideration; that the injury resulting therefrom affected only the beneficiaries of the fund and not the United States; and the Senate should take no further action in the matter."

Federation.—The Commissioners on Federation appointed by the General Conference of the Methodist Episcopal Church and the Methodist Episcopal Church, South, met in joint session in Washington, D. C., Jan. 7. A paper was presented as a basis of action by the commissioners of the Methodist Church, South, in which the report on federation adopted by the General Conference of that body in 1894 was referred to, and the declaration and basis of fraternity adopted by the "Cape May commission" in 1876 was cited: "Statutes of the Methodist Episcopal Church and the Methodist Episcopal Church, South, and their co-ordinate relations as legitimate branches of Episcopal Methodism. Each of said churches is a legitimate branch of Episcopal Methodism in the United States, having a common origin in the Methodist Episcopal Church organized in 1784; and since the organization of the Methodist Episcopal Church, South, was consummated in 1846, by the voluntary exercise of the right of the Southern annual conferences, ministers, and members to adhere to that communion, it has been an evangelical Church, reared upon scriptural foundations, and its ministers and members, with those of the Methodist Episcopal Church, have constituted one Methodist family, though in distinct ecclesiastical connections." The paper continued: "That commission decided questions concerning conflicting claims to Church property in so just and liberal a spirit as to settle local contentions and give general satisfaction. The questions which came before this commission relate not to Church property, but to such occupation of the same territory by the two great branches of Episcopal Methodism as tends to promote friction and waste and injury, rather than promote the common cause—namely, the spreading of scriptural

holiness through this and other lands." The commission then discussed, and adopted unanimously, to be presented to the General Conferences of the two bodies, recommendations for the preparation of a common catechism, hymn book, and order of public worship; for the recognition and regulation of the International Epworth League conventions; for the just administration of publishing interests in China and Japan; for the co-operative administration of foreign missions; providing that new work be not organized by either Church when the other is established and supplying the needs of the people, without the consent of the bishops having jurisdiction; and for co-operation in the work of higher education, especially during the years 1900 and 1901; and resolutions commending the American University at Washington for contributions.

III. African Methodist Episcopal Church.—The statistics of this Church for the year ending May 1, 1898, published by Bishop B. W. Arnett, Church historian, give the following totals: Number of annual conferences in the United States, 52, with 4 conferences in Africa, 3 in the West Indies, and 3 in British America, making in all 62; of bishops, 9; of general officers, 9; of ministers on the rolls of the annual conferences, 4,825; of presiding elders in America and foreign countries, 242; of local preachers, 8,709; of exhorters, 5,250; of members, 556,289; of probationers, 57,836; of churches, 5,172, valued at \$6,150,175; of parsonages, 1,750, valued at \$624,423; amount of indebtedness on Church property, \$752,964; number of schools, 41, with 160 teachers, 5,257 students, 660 graduates, property valued at \$756,475, and an aggregate annual income of \$115,560; of Sunday schools, 3,447, with 21,514 officers, 37,916 teachers and 362,421 pupils; amount of benevolent contributions—for missions, \$29,938; for publication, \$16,745; for Church extension, \$17,252; for education, \$115,560; for ministerial support, \$753,404; for presiding elders, \$141,876; in the Sunday-school department, \$20,740; whole amount of money raised in the Church, \$1,570,329; total amount of all property, \$8,104,886. The most noteworthy events of the year were the organization of two annual conferences in South Africa, with 10,800 members, and the formation of a Church in Santiago de Cuba.

At an educational convention of the three annual conferences of this Church in Arkansas, held at Pine Bluff, May 18, under the presidency of Bishop Derrick, questions were discussed relative to the necessity for a higher educational development among the ministers of the State; to what the laymen could do to assist in bringing it about; as to whether, as laymen, they should not be more interested in the general welfare of the Church; whether the spiritual and moral interest of the laity are as strictly watched over as they should be; and whether the laymen should not concentrate their energies and consecrate their lives to the development of the educational interests in the State. Resolutions were adopted expressing the sentiments that prompted these questions, and pledging more energy and greater liberality in the support of educational interests. An organization named the Annual Educational Convention of Laymen was instituted to meet annually, and to consist of delegates invited from each mission circuit and station. The convention advised, also, that a layman be elected from each presiding elder's district as a "district lecturer on education," and to look after educational interests.

A full official report published by Bishop Turner represents that a correspondence had been going on between the "African Methodist Episcopal Church" and the "Ethiopian" Church in South Africa, and

that a delegation had been appointed by that body to visit the General Conference of the African Methodist Episcopal Church in 1896, and request admission into the Church. The delegation had not been able to reach the United States before the General Conference adjourned; and in the emergency a special session of the Georgia Conference was held, into which the delegates were admitted as members. The Rev. James M. Dwane, chairman of the delegation, was commissioned to act as superintendent in South Africa, and carry on the organization of the Church till a bishop should arrive there. Bishop Turner sailed in February, 1898, and arrived at Cape Town in time to reach Pretoria for a called session of the Transvaal Annual Conference. Thence he went to Queenstown, where he attended the South Africa Annual Conference. He also visited Cape Town, Johannesburg, and Bloemfontein, and organized several churches. At the request of the two annual conferences, he appointed Mr. Dwane a vicar bishop, to perform the usual functions of a bishop during the long intervals that must elapse between visits of those officers from the United States. The Transvaal Conference returned, including three churches that were added at Johannesburg during the bishop's visit, 7,175 members and probationers. The South Africa Conference had 8,625 members and probationers. The conferences were independent in position, and did not ask for missionary aid; but they wanted help in building a college or seminary, and desired teachers sent out from America.

IV. Colored Methodist Episcopal Church in America.—The tables in the "Independent" give this Church, for 1898, 2,187 ministers, 1,800 churches, and 199,206 communicants.

The ninth General Conference met at Columbia, S. C., May 3. The bishops in their quadrennial address advised against the election of any more persons to their office, and the Conference, after some discussion and efforts to overrule their recommendation, sustained it. An epidemic of small-pox prevailing in the city, the Conference, after a session of six days, was compelled to adjourn for want of a quorum, without having completed any legislative acts. Subsequently a called meeting of the General Board was held at Nashville, Tenn., and took action on several matters of importance. In order to provide a nucleus for the immediate establishment of a Sunday-school department, an assessment of one dollar was laid upon each bishop, presiding elder, and pastor, and of one cent upon each child in Sunday school. The Rev. R. A. Carter was chosen secretary of the Sunday-school and Epworth League departments. Provision was made for the publication of a volume of minutes of the Conference, and of the minutes of all the General Conferences. Resolutions were passed complementary to the older bishops, and an anniversary meeting was appointed to be held in their honor at the next meeting of the General Board, to be held in Jackson, Tenn., in May, 1899.

At the annual meeting of the Board of Education of the Methodist Episcopal Church, South, held in May, Bishop Halsey, of this Church, and others, represented their special works. More money had been raised for the current expenses of Paine and Lane Institutes in the past than in any other year except one. The Heywood Memorial Hall fund had realized a considerable amount in cash and subscriptions, and the hall was well under way. The board has money enough to maintain its operations till the fall remittances from the annual conferences shall begin to come in, with no outstanding obligations. An effort was resolved upon to raise \$40,000 for the theological department of Vanderbilt University.

V. Union American Methodist Episcopal Church.—The Union American Methodist Episcopal Church is a branch of an organization formed in 1818 by Peter Spencer as the African Union Methodist Episcopal Church. Subsequently the denomination was divided, one part retaining the old name and the other assuming the name given at the head of this article. The General Conference of this body met at Camden, N. J., Oct. 18. The General Conference was composed of 35 elders and 20 laymen. The law of its constitution was modified, so that in future an elder must travel ten years before he can be eligible as a clerical member in the General Conference, and to be qualified for the office of bishop he must have traveled ten years, and be not less than forty years old. Legislation was adopted concerning the trial of members, a four years' course of study for candidates for the ministry, the organization of a Sunday-school union, and fixing the salaries of the bishops at \$1,000 a year each. Besides the general, annual, and quarterly conferences already existing, the District Conference was established. This Church has about 3,500 members, and is divided into three episcopal districts, James W. Wilmore, James C. Cook, and Benjamin T. Ruley being the bishops.

Other colored Methodist churches are the Union American Methodist Episcopal Church, with 68 ministers, 61 churches, and 2,875 members; the African Union Methodist Episcopal Church, with 80 ministers, 70 churches, and 7,000 members; and the Congregational Methodist Church (colored), with 5 ministers, 5 churches, and 319 members.

VI. Free Methodist Church.—The statistics published in the combined minutes of this Church for 1898 give the number of members in full connection as 24,875, and of probationers as 3,259, showing a gain of 363 full members and a loss of 364 probationers, as compared with the previous year. The report on Sunday schools shows an increase during the year of about 700 pupils, 267 officers and teachers, and of nearly \$1,000 raised for Sunday-school purposes. The total valuation of church and parsonage property is \$1,219,816. The comparative summary for the quadrennium closing with the meeting of the General Conference shows a gain during the four years of 2,763 in full members and a decrease of 771 in probationers, or a net gain of 1,992, or a little more than 7½ per cent.

The tenth General Conference met in Chicago, Ill., Oct. 12. The pastoral address of the general superintendents was read at the opening of the sessions by Superintendent B. R. Jones, who represented that, during the quadrennium then just closed, there had been some increase in members, ministers, and houses of worship, and that 7 new conferences had been organized. The reports of foreign missions showed encouraging improvement at nearly every station. Property had been acquired or title secured in Africa and India; two new missionaries had been sent to India; mission stations had been established in Japan, and 2 societies organized with 35 full members and about twice as many probationers. The receipts for the past quadrennium, \$35,513, showed an increase of \$14,843 over those of the previous four years. The address spoke also of the orphanages and homes of the Church, the publication house, and the Sunday-school literature furnished by it. Several measures were enacted by the Conference concerning the qualifications of ministers, among which was one recognizing a general desire among the people for a high grade of scholarship among the preachers, in view of which provision was made for the institution of a series of written examinations for preachers in the

course of study to be conducted by the conferences on question papers prepared by a central board—to go into effect in the year 1900; a resolution disapproving the admission and advancement in certain instances of ministers and evangelists who had not passed the educational tests required by the Discipline, or were behind in some of their studies, and insisting on full compliance with the prescribed tests; and a resolution directing that no person shall be licensed as a local preacher who has not been previously licensed as an exhorter and recommended. The Conference refused to allow the name of a woman preacher to be placed upon the list of claimants upon the Superannuate fund; but in the case of another woman it refrained from disapproving the appearance of her name in the list of members of the Kansas Conference, on the ground that she had been received into the Conference prior to the action of 1890, which barred the admission of women. The sense of the Conference was expressed that it has been a violation of Discipline, since the action referred to, to receive a woman into an annual Conference on trial or in full connection. A proposition to substitute the title of "bishop" for the words "general superintendent" where they occur in the Discipline was rejected, and the title of the officer remains general superintendent. A recommendation to expunge the general rule relating to slavery was adopted, conditioned upon its receiving the assent of the requisite majority of the annual conferences. The Conference resolved to begin proceedings to close the business of the Methodist Association for the Perpetuation of Church Property, and appointed a committee to attend to the details of the transaction. A delegate, with a reserve delegate, was appointed to the Ecumenical Methodist Conference to be held in London in 1901, and also to a preliminary meeting in anticipation of the conference to be held in Plainfield, N. J. Two delegates were appointed to attend the Ecumenical Missionary Conference to be held in New York city in the spring of 1901. The action of a previous General Conference urging the people to vote "with the party committed fully to the overthrow of the saloon" was reaffirmed. Provision was advised for the publication of a list of the best books for Sunday-school libraries, and for having the books kept on sale at the publishing house. A number of measures were directed for the promotion of Sunday-school work, including annual Sunday-school conventions, monthly Sunday-school board meetings, the furnishing of lesson helps to the schools, and the institution of a Sunday-school secretary, who shall also be associated with the editorial departments of the Church and Sunday-school papers. E. P. Hart, George W. Coleman, Burton R. Jones (all re-elected), and Walter A. Sellen (elected for the first time) were chosen general superintendents. The salary of the general superintendent was fixed at \$800 a year, with \$200 for traveling expenses. Special collections were authorized to be taken at points where the superintendents are called to labor, the proceeds to be applied to their salaries; they to give receipts for the money if required to do so.

VII. Methodist Protestant Church.—"The Methodist Protestant," the official organ of this Church, publishes a comparative table of numbers and the net gain of members of this Church by periods of ten years from 1828 to 1896, which shows that in the former year it had 5,000 members; in 1838, 39,000 members, a gain of 680 per cent.; in 1848, 58,000 members (gain, 48.73 per cent.); in 1858, 75,000 members (gain, 29.31 per cent.); in 1868, 99,000 members (gain, 32 per cent.); in 1878, 116,000 members (gain, 17.17 per cent.); in 1888, 147,000 members (gain, 26.72 per cent.); and in

1896 (eight years), 181,000 members (gain, 23.12 per cent.). To the present number of full members should be added nearly 3,000 ministers and preachers and perhaps 5,000 probationers. The 50 conferences return, for the beginning of 1898, 2,294 churches, 512 parsonages, 2,200 Sunday schools, with 19,363 officers and teachers and 130,562 pupils, and Church property valued at \$4,913,809; colleges at Westminster, Md., Adrian, Mich., Yaddin, N. C., La Harpe, Ill., Westminster, Texas, and a theological seminary at Westminster, Md.; 3 book concerns, at Baltimore, Md., Pittsburg, Pa., and Greensboro, N. C.; 8 church papers; a complete set of Sunday-school papers; and Boards of Home and Foreign Missions, Ministerial Education, Church Extension, Ministerial Relief (superannuate preachers), and local interests.

VIII. Methodist Church in Canada.—The General Conference statistician has published statistics of this Church for 1898, the summary of which gives for the western section, including the London, Toronto, Hamilton, Bay of Quinte, Montreal, Manitoba and Northwestern, British Columbia, and Japan conferences, and the China mission, 239,622 members, showing an increase of 2,638 during the year, and for the eastern section, including the Nova Scotia, New Brunswick and Prince Edward Island, and Newfoundland conferences, 40,915 members, a decrease of 226; total, 280,537 members, with a net increase of 2,412. A comparison with the tables of the 3 previous quadrennial terms shows that the Church has realized a net increase of 110,734 members during the past fifteen years. Of the members returned in 1898, 2,370 were connected with the Japan Conference and 31 with the China mission.

The tables prepared by the General Sunday-School and Epworth League Board represent 8,387 Sunday schools, with 270,239 pupils, showing an increase of 136 schools and 17,783 pupils in four years. The Home Department, consisting of persons who, without attending the Sunday schools regularly, study the lessons at home and make stated reports of their work, has been developed rapidly, the number of members having risen from 1,856 in 1895 to 7,151 in 1898. The board also reported that there were 658 Epworth Leagues and 869 Epworth Leagues of Christian Endeavor, besides a number of Young People's societies, making the whole number of such societies within the Church 1,947, with 81,935 members, showing an increase in four years of 915 societies and 34,760 members. The collections for the general fund amounted to \$1,374. The total collections of the Sunday-School Aid fund for the past four years had exceeded those of any previous quadrennium. The amount for the last year was \$2,665. A debt of \$2,600 existing four years ago had been extinguished. A joint commission of the Epworth League, Christian Endeavor Societies, Baptist Young People's Union, and other societies was arranging for the preparation of common topics to be used in the Young People's prayer meeting.

The capital stock of the Book Room amounted now to nearly \$400,000, having increased \$60,000 in four years. During this period \$34,000 had been paid to the Superannuation fund.

The total sum of \$23,435 had been raised during the quadrennium for the General Conference fund, \$8,020 below the estimate set by the last General Conference fund.

The capital of the Parsonage and Church Aid fund was returned at \$23,790, of which \$19,799 were invested. The receipts had been \$14,688, and the expenditures \$10,698.

The income of the Educational Society for four years had been \$86,002. Grants had been made to colleges amounting to \$44,279, and the fees paid to

student probationers amounted to between \$10,000 and \$11,000. The loans had amounted to about \$14,000, and \$8,753 had been repaid on loans. Seven hundred and fifty-three notes held by the treasurers aggregated \$38,007.

The General Board of Missions, at its annual meeting, Sept. 23, made appropriations of \$20,886 to missions in Japan, \$9,592 to those in China, \$6,725 to French evangelistic and educational work, and \$85,534 to domestic missions. The arrangements made for the Indian missions by the last annual conferences were continued.

The Missionary Society had in Japan 25 missionaries, 33 assistants, 15 teachers, and 2,370 members; in China, 10 missionaries, 2 assistants, and 4 teachers; in the 59 missions among the Indian tribes, 37 missionaries, 17 assistants, 32 teachers, 11 interpreters, and 5,407 members. The 408 domestic missions were supplied by 390 missionaries and 34 assistants, and returned 37,603 members. A mission to the Japanese in British Columbia reported 83 members. The aspect of the missionary work among the Canadian French was not encouraging. The sum of \$21,455 was spent upon the mission in Japan, besides \$990 on the Japanese work in British Columbia; \$12,193 upon the Chinese mission; \$85,946 upon the work among the Indians; and \$92,881 upon the domestic missions.

The Woman's Missionary Society had laborers at four stations in Japan—Tokio, Shizuoka, Kofu, and Kanagawa, and had recently entered also Nagano. About 30 pupils had been graduated from the 3 schools during the quadrennium; 29 pupils and more than 80 women had been baptized; and 30 children were cared for in the orphanages at Tokio and Kanagawa. The pupils at Tokio have for several years maintained a school for 50 poor children, and were contributing to the work in China. Four missionaries had been sent to China since the previous General Conference, one of whom had died. A rescue home for Chinese girls was maintained at Victoria, British Columbia. Among the Indians of the Northwest, the Crosby Girls' Home was maintained at Fort Simpson, and the Coqualeetza Home at Chilliwack had become an Indian institute, where about 100 children were taught and trained. The French institute in Montreal was attended by 80 pupils.

The fifth General Conference met at Toronto, Sept. 1. The Rev. Dr. Carman, general superintendent, presided, and presented in his official address a review of the history of the Church during the past four years, and of its relations to the ecclesiastical, fraternal, and the moral movements of the day. On the presentation of the report of a committee on that subject, the Conference expressed approval of an Ecumenical Conference of Methodism which it is proposed to hold in London in 1901, and its readiness to co-operate in carrying the scheme out upon the basis proposed; appointed a delegate, with an alternate, to represent the Canadian Church; and arranged for the other delegates to be apportioned to the different annual conferences. In response to the address of a fraternal delegate of the Presbyterian Church, the Conference declared "that in such fraternal fellowship we find more than mere interdenominational courtesy. Our cordial esteem for the Presbyterian Church amounts to warm Christian love"; and that the approximation of the two leading churches of the Dominion was "an encouraging guarantee of the continuance of an active evangelical influence." The action of the General Conference of 1894 upon the subject of a federal court for Protestant churches was reaffirmed. A committee was appointed to consider any proposals from other denominations looking towards union. The committee on the "Twen-

tieth-Century Thanksgiving fund" of \$1,000,000, which it is proposed to raise, reported that several memorials and resolutions had been received from districts and annual conferences, all favorable to the scheme, and suggested the details of a plan for carrying it out. The plan as adopted by the Conference contemplated that contributors be allowed to designate the objects for which their subscriptions shall be used, and recommended as the interests from which this choice may be made: Educational institutions; missions, home or foreign; Superannuation and Supernumerary funds; and local church debts. Donors were permitted, if they prefer, to leave their contributions to be distributed among the institutions, funds, and objects mentioned as the committee to be appointed by the General Conference might deem advisable. It was insisted upon that the givings to the Twentieth-Century fund must not be allowed to interfere with customary givings to the various Connectional funds. A motion proposing to strike out a note in the Discipline specifying what amusements and worldly practices were regarded by the Church as inconsistent with Christian life, and also a motion to modify the rule by making it a mere general statement, were voted down by an overwhelming majority, and the rule was left to stand unchanged.

In the revision of the disciplinary provisions regarding the superannuation of ministers, stipulations are inserted for medical examination before superannuation; for the refunding of only one half of the money paid in by the minister to the Superannuation fund, instead of the whole amount, as formerly, in case he withdraws from the Church; and permitting the suspension or withdrawal of annuities in cases where the minister does not intend to return to active work. The rule limiting the number of years for which a minister may be returned to the same station was amended so as to provide that by the request of the Quarterly Board expressed by a three fourths vote taken according to specified forms, the Stationing Committee may continue the appointment for four or five years in succession. The Transfer Committee was constituted to consist of the general superintendent and the presidents of the annual conferences other than mission conferences, to meet annually. It was given authority to transfer a minister from one Conference to another, by a two thirds majority, without his consent. It was directed that four ministers shall be transferred during the quadrennium from Newfoundland into some of the other conferences, no Conference, however, to receive more than one such transferred minister. It was further provided that after a man had stayed ten years in Newfoundland he could be brought back into one of the western conferences if he desired it. In a resolution expressing regret at signs of the decline of class meetings, the Conference "strongly recommended that earnest efforts be put forth to make our class meetings more and more attractive and spiritually helpful, and that more importance should be attached to the holding of leaders' meetings, to the preparation and diffusion of useful literature on the subject, and to the holding of class-leaders' conventions or institutes in connection with our conferences and district meetings, and at educational centers." It was ordered that the allowance of home missionaries shall include all items of a minister's support, such as salary, board, fuel, and traveling expenses, but not house rent. The missionary work among the Indians was put under the immediate control of the mission board. Mission councils were constituted, to consist severally of the missionaries sent to any foreign field, when not less than five in number, to be subject to such regulations and rules within its authority as the mission board may from time

to time adopt, with power to elect annually a chairman, to meet once a year for consultation, to appoint an executive committee to consider matters that may arise during the intervals between council meetings; to designate the particular field of each missionary and appoint or reappoint him thereto; to consult on matters of common interest with native pastors appointed by the annual Conference for the purpose; to meet annually with the council of the Woman's Missionary Society; to regulate matters pertaining to the property of the society; to review the work of each year; to plan for evangelistic work; to adjust, in the absence of the superintendent, differences or conflicts of authority between a foreign missionary and a native pastor; and to receive quarterly reports from the foreign missionaries and send annual reports to the General Board. The powers and duties of the superintendent of the mission were also defined, and amendatory provisions were adopted concerning mission conferences. Where the number of missionaries in the field is less than five, their power is limited to the making of recommendations. The Conference ordered that lawyers appearing either as counsel or representatives of parties in interest shall not be admitted to Church courts. While expressing its thankful realization of the important work that women were doing in the Church, the Conference, finding that very few desired official positions, decided that no change be made in the present policy. The beginning of an aggressive evangelistic campaign throughout all the circuits and missions of the Church during the opening weeks of the year 1901 was advised, and the general superintendent was requested to associate with himself a representative from each Conference in the Connection for the preparation of a scheme for such a movement, to be submitted to the annual conferences in 1900. The Conference authorized a memorial to be addressed to the Secretary of State for the Colonies praying her Majesty's Government to abolish the present order of precedence for the clergy in state functions in Canada, and directed its special committee to proceed with all diligence to secure the co-operation of other churches in the proposed memorial, and of the press, "for the removal of a procedure which is offensive in its unjust discrimination, and is utterly opposed to the constitutional relations of Church and state in the Dominion."

The duty of the Church to consider social problems was recognized in the appointment of a committee on sociological subjects, to which memorials on prison reform, single tax, and other topics coming within the sphere of sociology were referred. The report of this committee admitted the influence of heredity and environment, affirmed the sovereign freedom of the individual, and urged co-operation in efforts of various kinds for the improvement of the condition of the people in different directions.

IX. Wesleyan Methodist Church.—The following is the summary of the statistics of this Church in the British and affiliated conferences as they are given in the volume of the annual minutes for 1898.

CONFERENCES, ETC.	Members.	On trial.	Minist.
In Great Britain	442,248	32,006	2,135
In Irish Methodism	27,180	775	238
In foreign missions	44,640	11,167	392
French Conference	1,770	196	73
South African Conference	57,906	23,544	204
West Indian Conference	44,692	8,378	100
Totals	612,436	71,905	3,112

The returns do not include the number of ministers and members in the Australasian Wesleyan

Church and in the Methodist Church of Canada; these are given in the minutes of their respective conferences. The young persons, 76,484 in number, enrolled in junior society classes, are also not included in the English returns. During the year the German Methodists, numbering 2,414, were transferred to the Methodist Episcopal Church in Germany.

The annual meeting of the Wesleyan Missionary Society was held in London, in May. The total annual income, home and foreign, had been £132,227, and the expenditure £131,266. The extra income, including special plant account, donations to the Indian Famine fund, and special contributions for extension, had been £12,907; and, in addition, the Women's Auxiliary had expended £13,083. The ordinary income was £3,000 in advance of that of the previous year, which in turn had been nearly £2,000 more than that of the year preceding. The history of the year had been marked by a widespread desire for extension, which had led to the erection of a special fund, resulting in the sending out of additional missionaries to Hyderabad and Lucknow. The sum of £7,732 had been raised to relieve distress caused by the Indian famine. A church membership of 44,457 was returned in the missions under the direction of the society, with 11,893 on trial. Allowing for the disappearance from the returns of the German district, which had been transferred to the Methodist Episcopal Church in Germany, and now formed part of it, the figures showed an increase for the year of 2,298. In the missions under other conferences than the British, which were still assisted by the society in France, South Africa, and the West Indies, there were nearly 180,000 souls in the fellowship of the churches.

The Conference met at Hull, July 19. The Rev. Hugh Price Hughes was chosen president. A scheme was adopted for raising a "Wesleyan Methodist Twentieth-Century fund" of 1,000,000 guineas, under which each member of the Church is to aim at giving or collecting a guinea or more, and the first day of the twentieth century is to be observed as a day of prayer and thanksgiving. The roll of contributors, opened on Jan. 1, 1899, to be kept open for two years, is to be preserved among the historical documents of the Church. A committee was appointed to make provisions for carrying the scheme into effect. The president of the Conference was authorized, upon his own request, to spend two days in each of the principal towns throughout Great Britain for the purpose of promoting spiritual work among the Methodist churches by holding united gatherings of their people. A change in the order of sessions of the Conference was decided upon, whereby the representative session (of which the lay members are a part) will precede the pastoral session. A proposition to exclude persons directly interested in the sale of intoxicating liquors from all official positions in the Church was disposed of by the adoption of a resolution declaring "that, while not interfering with the constitutional method of appointing the officers of our Church, the Conference recommends our people to keep free from a traffic the results of which are injurious to the interests of religion, morality, and social life." The senior secretary of the Missionary Society announced that 12 or 14 new men were to be sent out to the foreign field. It was represented that the provision for the creation of a "Welsh Methodist Assembly of Wales" adopted by the previous Conference had been unanimously approved by both the Welsh synods. The chairman of this body is to be officially known as the President of the Assembly.

The house which was occupied by John Wesley, on City Road, London, was dedicated March 1 as a Methodist Connectional center, museum, and home

for Christian workers. The house had been continued as a ministerial residence since the death of Mr. Wesley, in 1791. It being no longer needed for this purpose, a scheme was proposed by the Rev. T. E. Westerdale, superintendent, for freeing the Wesley's chapel trust from debt, and providing for the permanent settlement and endowment of this house for the purpose mentioned. This having been accomplished, and an endowment fund of £5,000 secured, the ceremonies of opening the Wesley house were celebrated in connection with the anniversary of John Wesley's death. One of the purposes for which the house will be used will be as a Methodist historical museum, toward which "a considerable collection of books, manuscripts, and articles associated with Wesley and with Methodist history has been gathered.

X. Primitive Methodist Church.—The statistical reports of this Church, presented to the Conference in June, give it 1,088 ministers, 16,617 local preachers, 10,418 class leaders, and 197,182 members, showing an increase during the year of 1,455; 4,308 Sunday schools, with 61,000 teachers and 465,069 pupils (49,785 were church members); and 4,628 chapels, valued at upward of £3,000,000, and capable of accommodating 595,038 hearers. Five hundred and sixty-six Christian Endeavor Societies returned 15,657 active members and 5,774 associate members. Increase was shown in every department of denominational activity.

The total receipts for missions had been £16,671, and the expenditures £14,252. The receipts for the African fund had been £6,811, and the expenditure £4,146. This fund was represented to be winning increasing support. In addition to the money which had passed through the hands of the treasurers, there had been raised and appropriated locally for home missions £15,691, and for African missions £2,485. The 41 home missions returned 10,819 hearers, 51 ministers, 5 lay missionaries, 6 Bible women, 377 local preachers, 118 Sunday schools, 1,126 teachers, 9,129 scholars, and 4,719 members. The mission in Africa comprised 8 principal stations, with 25 outstations, 8 European and 4 native missionaries, 4 trained native evangelists, 50 native local preachers, 8 native day schools, 40 native class leaders, and 1,286 members, showing a gain of 40 members during the year.

The Conference met at Leeds, June 8. The Rev. John Smith was chosen president. The report upon the attempt to raise a jubilee fund of £50,000, initiated seven years previously, represented that only £38,000 had so far been raised, while the enthusiasm had somewhat diminished under the pressure of local claims. The Conference decided to leave the fund open another year and reappointed its committee. The income of the Aged and Necessitous Local Preachers' fund had increased by £341, and was now £788. Sixty students were attending the Manchester College for the training of ministers. The Chapel Aid Association had a deposit account of £219,339, and a loan account of £206,652. It had during its operations helped trustees diminish their liabilities by £49,630. The Connectional Insurance Company had issued 7,769 policies, 5,038 of which were still current. It had a reserve of £26,384. The General Chapel fund had during the year co-operated with trustees in reducing their debt by £17,000. The Chapel Loan fund stood at £8,500, and had lent to trustees during the year £1,584. The sales of the Book Room had reached £34,566, the highest amount in its history. The Joint Committee on Union with the Bible Christians reported that in this Church 18 out of 24 districts were in favor of continuing the negotiations; only 2 districts had approved the change in the composition of the Conference from two laymen to

one minister to equal representation of ministers and laymen; while the Bible Christians objected to the large official element which it was proposed to incorporate in the united Conference. The Conference decided to continue the negotiations. The joint committee on concerted Methodist action had labored to promote that object and Methodist fellowship. It found that the freest scope for united action lay in social and philanthropic questions. A Methodist Yearbook was recommended, and the churches were urged to hold united services once a year. The consent of the Conference was given to the accomplishment of the scheme for Methodist union in Australia. A committee on the institution of a system of pensions was reappointed. A measure for the creation of a sustentation fund was passed, with a proviso that it should come up for revision within the next five years.

XI. Methodist New Connection.—The one hundred and second Conference met at Nottingham, June 13. The Rev. David Heath, of Sheffield, was chosen president. The Committee on the State of the Connection reported that there had been a net increase during the year of 886 members and 637 probationers. The Sunday schools included 10,979 teachers and 83,838 pupils in England and Ireland.

A system of visitation of grant-aided circuits and home-mission stations was instituted, under which a minister and a layman are to be appointed by the Conference on the recommendation of the Home Mission Committee, whose duty it shall be to visit the circuits or stations once or twice a year, inquire into their condition, and give advice. The opinion of the Conference was expressed (in a case involving the question) that there is nothing in the constitution of the Connection to prevent the appointment of a minister in a home-mission station for a sixth year. A uniform financial system for all Connectional funds was instituted, with provisions for common banking, or a kind of clearing-house exchanges between them.

XII. United Methodist Free Churches.—The statistical reports of this denomination, made to the Conference in July, give it 397 ministers, 3,409 local preachers, 82,307 members, with 9,116 on trial, and 25,051 teachers, with 201,467 pupils in Sunday schools. The total income from circuits for home and foreign missions was £9,840, exceeding the income of the previous year by nearly £2,000. The missionaries numbered 56; the native and local preachers, 563; church members, 11,152, with 2,785 on trial; chapels, 137; preaching rooms, 132; day and Sunday scholars, 9,983; teachers, 983.

The Conference met at Lincoln, July 19. The Rev. E. D. Cornish, of Manchester, was chosen president. The Chapel Relief fund returned an income of £1,382 and a balance in hand of £806; the Chapel Loan fund, a capital of £14,000, of which £11,300 was out on loan; the Connectional Fire Insurance Association, an income exceeding the losses by £368, and a capital of £2,063; the Superannuation and Benevolent fund, an income of £11,800, and a balance in hand of £2,300. The sales of the Book Room had reached £5,500, and the profits £351, while the borrowed capital had been reduced by £700.

XIII. Bible Christians.—The Bible Christian Conference met at Cardiff, July 26. The Rev. W. B. Lark, of Davenport, was chosen president. The report of the Joint Committee on Union with the Primitive Methodist Church, presenting the records of the meetings of the committee and the resolutions passed by the Primitive Methodist Conference in June, was adopted, and the negotiations were directed to be continued, with instructions to the committee to make any modification that may be found necessary in the constitution of district

meetings and committees. It was understood, however, by the Conference and the committee, that no concession should be made of the Bible-Christian principle of equal representation of ministers and laymen in Conference, the Primitive Methodists proposing as the basis of representation two laymen to one minister. A scheme was adopted for the raising of a "New-Century fund," the precise amount of which was not fixed, to be applied (1) to making provision for the aid of local preachers in sickness and old age; (2) to the increase of the Chapel fund; (3) to the augmentation of the Superannuated Ministers' fund; and (4) to provision for the more efficient training of candidates for the ministry. The total receipts of the Missionary Society were reputed to have been £7,594, and the expenditures £8,332, leaving a balance due the treasurer of £738. Special mention was made in the annual report of the society of the success of the Bush mission in South Australia. Favorable reports were made of the Christian Endeavor Societies, the fire assurance department, and of the examinations of probationers.

XIV. Wesleyan Reform Union.—This society had according to the statistics reported to the Conference in August, 195 chapels and preaching places, 16 ministers, 422 preachers, 7,178 members, and 171 Sunday schools, with 2,738 teachers and 20,799 pupils. The Conference met at Clayton West in August. Mr. W. Brooks, of Sheffield, was chosen president. The need was pointed out in the annual report of a whole-hearted service, in the face of the growing worship of physical amusement, the increasing evil of gambling, and the liquor traffic. The spread of sacerdotalism in the Anglican Church called for the united watchfulness of all the Protestant Free churches. A pastoral letter was directed to be sent to the churches urging them to increase their zeal and labors among the young people.

XV. Wesleyan Methodist Church in South Africa.—The statistics published in connection with the South African Conference give this Church 147 circuits, with 2,517 chapels and churches, 199 ordained ministers, 193 evangelists, 3,143 local preachers, 46,024 native and 5,882 English members, the whole number showing an increase of 4,034 during the year; 500 Sunday schools, with 2,438 teachers and 32,639 pupils; 500 day schools, with 794 teachers and 31,800 pupils; and 3,972 class leaders. The Conference, including churches in Cape Colony, Orange Free State, and Natal, met at Cape Town, with the Rev. James Thompson as president.

XVI. Australasian Wesleyan Methodist Church.—The following are the members attending worship in the several South Sea missions of the Australasian Wesleyan Missionary Society: Samoa, 6,192; Fiji, 96,421; New Guinea, 9,318; New Britain, 8,812; total, 120,743. These figures show an increase, in two years, of 183 churches, 5 native ministers, 741 members, and 2,451 adherents. The financial accounts, however, showed a deficiency of £1,197 upon the year's work, making a total indebtedness against the society of about £4,500.

The General Conference was held in Auckland, New Zealand, with the Rev. H. T. Burgess as president. Progress was reported in the movement for the union of all the Methodist bodies in the Australian colonies into a single church, which had reached different stages of advancement in the different colonies. The prospect of an ultimate successful issue was considered good. Action upon a number of propositions for constitutional changes offered to the Conference was deferred, in order that they might be presented, if the scheme for union should be consummated, to the General Conference

of the united church. In view of a contemplated extension of the foreign mission work to continental Asia and Japan, an additional organizing secretary was appointed. A friendly letter was ordered sent to the divided churches in Tonga, describing what was being done to secure union in the colonies, and expressing the hope that their difficulties might be healed. Resolutions were adopted emphasizing the importance of preserving the class meeting in its integrity; condemning the holding of lotteries and games of chance for the benefit of religious enterprises; and commending proportionate giving to the cause of God. The establishment of a central institution in connection with Queens College, Melbourne, for training candidates for the ministry, was decided upon.

MEXICO, a republic in North America, composed of 27 federated States and a federal district, each represented by two Senators in Congress. The House of Representatives has 227 members, elected for two years by universal manhood suffrage. The Presidential term is four years. Gen. Porfirio Diaz has been elected five times in all, and for four terms in succession, the last time on July 15, 1896. The Cabinet was composed in the beginning of 1898 as follows: Secretary of Foreign Affairs, I. Mariscal; Secretary of the Interior, Gen. M. Gonzalez Cosio; Minister of Justice and Public Instruction, J. Baranda; Minister of Fomento, M. Fernandez Leal; Minister of Finance and Commerce, J. Y. Limantour; Minister of Communications and Public Works, Gen. F. Z. Mena; Minister of War and Marine, Gen. F. B. Berriozabal; State Treasurer, F. Espinosa.

Area and Population.—The area of Mexico is 767,005 square miles, including 1,420 square miles of uninhabited islands. The population of the Atlantic States, area 124,692 square miles, was 1,685,031 at the census of Oct. 20, 1895; of the central States, area 316,125 square miles, 6,684,078; of the Pacific States, area 324,768 square miles, 4,809,752; total population, 12,578,861, giving a density of 16.4 per square mile. The City of Mexico had 344,377 inhabitants.

Finances.—The revised budget for the year ending June 30, 1899, makes the revenue of the Federal Government \$52,500,000, of which \$25,000,000 are derived from customs, \$20,900,000 from stamps, \$2,700,000 from direct taxes, \$2,300,000 from posts and telegraphs, \$200,000 from succession duties, and \$1,400,000 from various sources. The total expenditure was estimated at \$52,672,448, of which \$26,155,717 are for debt and financial administration, \$11,996,356 for war and marine, \$5,652,111 for communications and public works, \$3,685,516 for the interior department, \$2,345,311 for justice and education, \$540,648 for foreign affairs, \$449,451 for the Supreme Court, \$745,626 for the Department of Agriculture and Commerce, and \$82,469 for the executive. The budgets of all the States amounted in 1895 to \$18,000,000.

The Federal debt on Dec. 8, 1898, amounted to \$201,143,121, of which \$108,555,100 was a foreign gold debt paying 6 per cent. interest, all except \$13,500,000 of 5 per cent. Tehuantepec railroad bonds.

The Army and Navy.—The standing army in the beginning of 1898 consisted of 7,249 cavalry, including 118 gendarmes and 261 rural guards, 2,289 artillery and train, and 22,605 infantry; total, 32,143, including 2,068 officers. The war strength is given as 20,000 cavalry, 8,000 artillery, and 123,500 infantry. The infantry is armed with Mauser rifles, the cavalry with carbines of the same system, the artillery with 7.9 centimetre Bange field pieces and Gruson mountain guns. The naval force consists of 2 dispatch vessels, 2 gunboats, and a

training ship. Four more gunboats, an ironclad, a cruiser, and 5 first-class torpedo boats are being built in Europe. The *personnel* numbers about 90 officers and 500 men.

Commerce and Production.—The production of rice in 1895 was 12,326 tons; of corn, 25,339,417, and of wheat 3,536,327 tons; of sugar, 143,578; of panocha, 69,083; and of molasses, 57,825 tons; of brandy, 3,213,885 hectolitres; of henequen, 42,378 tons; of cotton, 35,613 tons; of logwood, 77,839 tons; of cacao, 2,425, of coffee 19,060 tons; of tobacco, 56,632 tons; of rum, 483,352 hectolitres; of coconuts, 310,953. The cattle ranches are valued at \$500,000,000. The exports of gold ore in 1897 were valued at \$349,082; of gold bullion, \$5,858,366; of gold coin, \$93,632; of silver ore, \$10,680,732; of silver bullion, \$32,137,257; of Mexican dollars, \$14,578,958; of coffee, \$5,858,366; of henequen, \$7,431,852; of timber, \$3,518,970; of hides, \$2,903,229; of cattle, \$2,720,091; of textile, \$807,182; of zacaton root, \$1,187,700; of vanilla, \$997,155; of dyes, \$1,936,668. The total value of imports in 1897 was \$42,204,095, and of exports \$45,164,417 for merchandise and \$66,182,077 for precious metals, making a total of \$111,346,494. The distribution of the trade among the principal nations was as follows:

COUNTRIES.	Imports.	Exports.
United States.....	\$22,593,960	\$86,742,961
Great Britain.....	6,881,701	14,280,537
Germany.....	4,003,263	4,416,744
France.....	4,989,082	1,873,522
Spain.....	1,983,794	1,192,328
Other countries.....	1,752,396	2,840,422
Total.....	\$42,204,095	\$111,346,494

In 1898 the imports were valued at \$43,603,000, and exports at \$128,973,000. The export of precious metals was \$75,042,000; of henequen, \$11,569,000; of coffee, \$10,649,000; of live animals, \$4,867,000; of tobacco, \$4,490,000; of timber, \$3,597,000; of hides, \$3,590,000; of lead, \$2,910,000; of copper, \$2,278,000. Of the imports, \$21,491,000 came from the United States, \$8,106,000 from Great Britain, \$5,436,000 from France, \$4,782,000 from Germany, \$2,039,000 from Spain, \$590,000 from Belgium, and \$1,159,000 from other countries. Of the exports the United States took \$94,975,000, Great Britain \$14,776,000, Germany \$6,996,000, France \$5,320,000, Belgium \$1,556,000, Spain \$1,231,000, and other countries \$4,119,000.

Navigation.—The number of vessels entered at Mexican ports during 1898, including coasters, was 10,527, of 4,065,200 tons; cleared, 10,452, of 3,880,940 tons. Of those entered, 5,112, of 3,781,323 tons, and of those cleared, 4,953, of 3,535,898 tons, were steamers. The merchant marine numbered 17 steamers, of 4,081 tons net, and 51 sail ships of 9,317 tons.

Communications.—The length of railroads on Sept. 1, 1898, was 7,750 miles. The length of telegraph lines belonging to the Federal Government was 28,227 miles. Over these 1,865,303 messages were dispatched in 1897. The length of other lines was 13,924 miles. The postal traffic in 1898 was 86,750,000 letters and postal cards in the internal service, and 26,000,000 in the international service. The receipts were \$1,409,528; expenses, \$1,587,115.

Internal Affairs.—The Congress was opened on April 1 and reassembled on Sept. 17. The revenue for 1897-'98 was \$52,500,000, exceeding by more than \$2,000,000 the receipts for the previous year, notwithstanding a decrease in the yield of the import duties, due to the development of manufacturing industries. The greater activity of business enterprise made the stamp revenue much larger. When war broke out between the United States and

Spain, attempts were made by Spaniards to foment disturbances on the border in the hope of involving Mexico, but the Government re-enforced the troops on the frontier, broke up the band which the Spaniards had organized, and punished the instigators for their breach of the law.

MICHIGAN, a Western State, admitted to the Union Jan. 26, 1837; area, 58,915 square miles. The population, according to each decennial census since admission, was 212,267 in 1840; 397,654 in 1850; 749,113 in 1860; 1,184,059 in 1870; 1,636,937 in 1880; and 2,093,889 in 1890. By the State census of 1894 it was 2,241,641. Capital, Lansing.

Government.—The following were the State officers during the year: Governor, Hazen S. Pinckney; Lieutenant Governor, Thomas B. Dunstan; Secretary of State, Washington Gardner; Treasurer, George A. Steel; Auditor, Roscoe D. Dix; Attorney-General, Fred. A. Maynard; Superintendent of Public Instruction, Jason E. Hammond; Land Commissioner, William A. French; Bank Commissioner, Josiah E. Just, who died Feb. 19, and was succeeded by George L. Maltz; Railroad Commissioner, Sybrant Wesselius; Insurance Commissioner, Milo D. Campbell; Labor Commissioner, Joseph L. Cox; Adjutant-General, E. M. Irish; Food Commissioner, E. O. Grosvenor; Oil Inspector, Thomas R. Smith; Chief Justice of the Supreme Court, Claudius B. Grant; Associate Justices, Robert M. Montgomery, Frank A. Hooker, Joseph B. Moore, and Charles D. Long; Clerk, Charles C. Hopkins. All are Republicans.

Finances.—The report of the State Treasurer for the fiscal year ending June 30, 1898, shows that the balance on hand July 1, 1897, was \$783,888.04; total receipts for the year, \$5,122,859.36; total in the treasury, \$5,906,747.40; disbursements, \$4,690,534.79; balance June 30, 1898, \$1,216,212.61.

The net receipts from taxes for the year were \$2,559,219.71. Other receipts were as follows: Interest on surplus revenue, \$21,657.90; unexpended appropriations and funds returned, \$2,990.81; fees for examination of banks, \$9,136.66. The receipts not classified above aggregate \$149,253.31. The total receipts for specific taxes were \$1,028,930.25, divided as follows: From river improvement companies, \$2,870.10; railroad companies, \$744,077.60; insurance companies, \$219,152.62; plank-road companies, \$591.98; express companies, \$2,608.53; telegraph and telephone companies, \$59,586.71; freight, sleeping, and palace-car companies, \$42.65. There were no receipts from mining companies during the year, although these companies owe the State \$29,545.54.

The outstanding bonds of the State now are: Interest bearing—War loan bonds of 1898, 3½ per cent., \$208,700; war loan bonds of 1898, 3 per cent., \$191,300; total, \$400,000. Non-interest bearing—Past due part-paid \$5,000,000 loan bonds \$19,000, adjustable at \$578.57 per 1,000, \$10,992.83. Trust fund debt—Agricultural College fund, \$625,790.98; Normal School fund, \$66,125.12; Primary School fund, 7 per cent., \$3,861,018.52; Primary School fund, 5 per cent., \$833,612.96; University fund, \$532,556.81; balance trust funds, \$5,919,104.39.

The amount paid for the support of the insane was \$504,682.32. Of this, \$440,851.30 was for the permanent insane and \$34,547.72 for criminal insane.

During the year the State institutions received from the treasury \$2,106,232.02; from earnings, \$758,680.35; from loans, \$21,000; total, \$2,885,912.37. Their disbursements for current expenses were \$2,232,324.66; for building and special purposes, \$725,555.78; for payment of loans, \$21,600; total, \$2,979,480.44. This shows an excess of disbursements of \$96,568.07. The institution balances at the close of the year aggregated \$125,073.63.

The receipts from all sources by classes of institutions were as follows: Soldiers' Home, \$81,250.35; Home for Feeble-Minded, \$82,648.43; educational asylums, \$162,216.71; insane, \$800,890.40; educational, \$858,472.92; reformatory, \$451,146.35; miscellaneous, \$422,293.21; total, \$2,864,912.37. The insane asylums, of course, received considerable sums for the care of private patients.

The following shows the total disbursements by classes of institutions: Soldiers' Home, \$99,765.01; Home for Feeble-Minded, \$85,828.60; educational asylums, \$169,137.11; insane, \$882,928.81; educational, \$863,861.59; reformatory, \$446,833.64; miscellaneous, \$409,525.68; total, \$2,957,880.44.

Education.—The 7,917 schools of the State cost \$6,378,706.78 during the last fiscal year, and the wages of the 15,601 teachers reached the total of \$4,050,832.82. The number of pupils enrolled is reported at 491,812. The total Primary School fund on which the State paid 7 per cent. interest for the last fiscal year was \$3,817,170.75; the total fund on which 5 per cent. interest is paid was \$329,069.38; the total of both funds was \$4,646,240.13. The total income for the year for the use of the primary schools was \$1,017,871.98.

The University fund on which the State pays interest is \$529,621.59; total income for year, \$38,507.81. The amount of the Agricultural College fund on which the State pays interest is \$569,951.82; received from United States Government, \$22,000; total income, \$65,880.75.

The amount of the Normal School fund on which the State pays interest is \$65,945.12; total income, \$4,203.66. The amount paid male teachers was \$1,051,380.29; average monthly salary, \$45.65; paid female teachers, \$2,992,971.58; average monthly salary, \$34.95.

The bill for uniform text-books which was made a law by the Legislature in 1897, on condition of its acceptance by the districts, was rejected by 98 per cent. of them.

A class of 29 was graduated at the State Agricultural College in June. By Sept. 16 the students enrolled numbered 389. A new building for woman students is to be erected at a cost not exceeding \$75,000.

Charities and Corrections.—The report of the State board says that insanity has increased in an alarming ratio, but in the last decade the cost per patient per week has been reduced 28 cents per week, without impairing the efficiency of the asylums. There are 3,600 patients.

The report makes a strong plea for an indeterminate-sentence law. The parole law is satisfactory, but scores of convicts are turned loose each year before they are ready to take up the duties of civil life again. The law of 1885 was declared unconstitutional. The State House of Correction has ceased to be a reformatory, as at first intended, all classes of criminals being sentenced there now.

On June 30 last, the population of Jackson prison was 852. Of this number, 596 were employed at productive labor, while 256 prisoners were employed at non-productive labor or were idle or sick. Both the contract and State account systems of employing convicts are in force. The total receipts of the prison, including \$6,000 received from the State Treasurer, were \$118,019.54, and the total expenditures \$115,475.37. The individual convicts have a credit of cash on hand of \$13,555.39.

Marquette prison is reported with a population of 200. The remunerative industries are carried on under the contract system, 110 convicts being employed in the manufacture of cigars, for which the State receives 42 cents per day for each convict.

At the Detroit House of Correction there were 689 prisoners at the date of the inspection, of whom 74

were females. All industries here are carried on under what is known as the State-account system. The manufacture of brushes is now the principal industry, the chair industry having proved unremunerative. Last year the earnings of the institution exceeded the expenditures by \$17,277.67. The population of the State House of Correction and reformatory at Ionia, Oct. 1, was 460, of which number 327 were employed in industrial and remunerative labor, 106 on unproductive labor, and 27 were either idle or sick. Three systems of labor—contract, State-account, and piecework—are carried on. The only industry under the piece system is the caning of chair seats, and this is about to be discontinued. The receipts last year were \$78,042.25, and the disbursements \$112,062.98.

The total number of prosecutions brought in the State in the year was 19,495; convictions, 14,871.

Military.—The expenditures of the State in connection with the war were \$506,630.83. Michigan furnished 6,438 officers and men for the army, and 275 officers and men for the naval reserve. All but \$49,077 of the sum used was expended in the State.

The report of the State Grand Army of the Republic for 1897 shows that there are 379 posts in good standing in the department, with 15,726 members; 6 posts with a membership of 116 failed to report; 2,984 members are on the suspended list, being a reduction of over 700 from the previous year; 8 posts have been organized; 6 posts have been disbanded; 640 new members have been mustered; 711 members have been reinstated; 109 have been honorably discharged; 338 have died. The sum of \$30,442.68 has been paid into the various post funds; \$19,990.99 has been expended for relief and general expenses; \$11,823.96 is the cash balance.

Railroads.—From the Railroad Commissioner's report it is learned that there has been a net increase of 15 per cent. over the business of the year previous. The year has seen marked improvement in roadbeds, equipment, and accommodations for the public, the increased earnings having in most cases been devoted to the betterment of properties and facilities.

With the increase of wages a large number of men have found employment at better pay, and through freight rates have been reduced by competition.

The total mileage in the State is now 7,816.55 miles of main track and 2,198.40 miles of side-tracks and spurs, a total of 10,018.95 miles, an increase during the year of 200 miles.

There has been a decrease in the number of accidents, and the commissioner recommends that it be made a misdemeanor for persons to trespass on the tracks of companies, in order that accidents may be made less frequent.

The railroads carried 9,802,491 passengers within this State during the year, and of this number only 3 were killed and 6 injured, while 81 employees were killed and 259 injured. One hundred and six other persons, principally trespassers upon tracks and trains, were killed and 79 injured.

Taxes were computed last year under the Merri-man law, which amends the general railroad law, and the computations showed a net increase of \$203,075.86 over the previous year, the total being \$943,013.86. In order to make this showing the department included in the assessment all earnings from switching charges, and rentals of tracks and terminals, this ruling increasing the State's revenue by \$14,327.53. It also ruled that the new law repealed the law of 1891 exempting railroads north of the 44th parallel from taxation, thus increasing the revenue by \$16,086.44. The assessment under the new law of all companies having special charters further increased the revenue by \$31,160.90. By ruling that

the Merriman law applied to depot companies a still further increase of \$12,175.90 was effected. Every one of these rulings was challenged by the railroad companies, and an appeal was taken to the Supreme Court, the department being sustained in every instance. The increased revenue due to increased rates of taxation fixed by the Merriman law was \$127,150.49.

Banks.—The growth of the business of State banks since the present banking law was enacted in 1889 has been phenomenal, deposits having increased \$57,764,665.61, and loans \$48,320,831.11. On Dec. 1, 1898, the date of the last call, the total loans were \$79,136,528.24; real estate, furniture, and fixtures, \$3,960,988.03; cash, \$22,924,209.47. Of the liabilities the aggregate capital stock paid in was \$12,008,600; surplus fund and undivided profits, \$4,892,590.92; deposits, \$89,948,790; notes and bills discounted, \$76,754.81. The total footings were \$106,021,735.78.

The increase in deposits during the year ending Dec. 1, 1898, was \$10,625,638.27, and the increase in loans during the same period was \$8,338,308.21. The deposits of the national banks of Michigan increased about \$4,000,000 during the same year.

During the year 11 new State banks were organized and 1 failed with liabilities of \$11,040.68. One went into voluntary liquidation and 4 decreased their capital an aggregate amount of \$67,000. The net increase of capital was \$143,500. Six private bankers failed with total liabilities of \$484,000. There are now 188 State banks and 3 trust companies.

Insurance.—For 1898 the report shows that the total of risks written by stock and mutual companies was \$238,772,319; premiums received, \$4,467,290; losses paid, \$2,457,742.

The business of the 4 Michigan companies show the following increases over 1897: Risks written, \$5,648,866; premiums received, \$14,624; losses paid, \$7,652.

The latest figures at hand for life and accident companies are those for 1897. The total figures showing the Michigan business of all classes of companies are as follows: Policies issued, \$27,850,705, an increase over 1896 of \$3,959,569; insurance in force Dec. 31, \$136,571,796, an increase of \$6,646,516; premiums received, \$4,572,519, an increase of \$220,540; losses incurred, \$1,908,218, an increase of \$320,031. During the year 35 companies were authorized to do business in the State.

The following shows the Michigan business of co-operative life and accident associations: Policies written, 28,335; amount, \$17,976,111; certificates in force at the close of the year, 36,719; amount, \$46,979,764.

The Michigan business of fraternal associations was as follows: Certificates written, 45,570; amount, \$44,865,225; certificates in force at the close of the year, 187,057; amount, \$224,065,830; losses paid, \$1,722,876; mortuary assessments, \$1,896,876.

Casualty, fidelity, and miscellaneous companies made the following showing: Accident insurance written, \$53,949,718; surety, fidelity, and employers' liability, \$18,748,165; plate glass, \$991,234; miscellaneous, \$611,600; total, \$79,800,717. These companies collected \$332,219, and incurred losses aggregating \$122,899.

Labor.—The reports of factory inspection in 1898 are summarized as follows: The whole number of factories inspected was 4,556, the number running at the time of inspection 4,201, 355 being idle. They aggregated 42,733½ hours' run per day, or an average of 10.2, and when running full time would have run 276,467½ hours per week. They ran 255,967½ at the time of inspection. The total months run in the past year was 45,887½, or an

average per factory of 10.7. There were 168,483 employees when running full capacity, and at the date of inspection 138,598. Of these, 118,863 were males, 19,735 females, and 2,634 under sixteen years of age. The total number on the last pay roll was 137,582, of whom 118,082 were males and 19,500 females. The daily wages averaged \$1.37. Two hundred and one accidents were reported, and changes were ordered in 1,224 factories. The proprietors of 2,643 of the factories reported an increase in business, 1,537 no increase, and 21 refused to answer. More capital had been invested, in 702 of the institutions to the amount of \$4,274,693. In 2,817 factories they report more employees to the number of 22,337.

A report on the mine workers of the upper peninsula covering 1897 shows that 33 mines were canvassed in the iron range—12 at Marquette and Menominee each, and 9 at Gogebic; 8,932 miners were employed, 3,273 under contract. The highest and lowest wages per day were \$5 and 45 cents, respectively, with an average of \$1.74. Board at these places averages \$10.05 per month; other expenses, \$1.10. All the mines were in good condition, 18 promising for future operation, 8 fair and 7 poor; 34 fatal and 12 not fatal accidents was the record for 1897, and the total output of ore was 5,329,505 tons.

The total amount earned by 833 railroad men was \$505,008.35 a year, and the total amount saved \$32,522.73.

A decision of the Supreme Court in November declared against boycotting as unlawful whenever it uses threats of injury to persons or property in any form.

Food Inspection.—The report of food inspection for the last six months of the year shows that 32 prosecutions for violation of the dairy and food laws were brought by the department during the last six months; 10 cases were brought to trial, the defendant being convicted in every case. The law of 1897 concerning oleomargarine was pronounced invalid by the Supreme Court because it passed the Senate without an enacting clause, although this defect was remedied before the bill went to the Governor for his signature.

Suit was brought against the Live-Stock Sanitary Commission to compel it to pay the market value of sound cattle for 28 Jerseys which it had slaughtered and which were found to be diseased. The Court upheld the commission, which had awarded \$1 a head.

State Lands.—At the beginning of the fiscal year ending June 30, 1898, the whole number of acres held by the State was \$720,375.84. The number of acres of part-paid land forfeited to the State during the year was 558.50; number of acres of swamp land forfeited, 691.67; number of acres of delinquent land deeded by the Auditor General under the tax homestead law of 1893, 56,426.80; number of acres of tax homestead land reverted to the State for non-compliance with the law, 3,957.29; number of acres patented to the State by the General Government, 127.16; total, 783,147.06.

The number of acres of land sold during the year was 22,271.21; number of acres of swamp land licensed, 3,634.71; number of acres entered as homestead land under delinquent tax land act of 1893, 61,107.03. This left a total of 695,034.11 acres held for sale and homestead entry at the close of the year.

Mortgages.—The mortgages on farms recorded in the State during the year ending April 30, 1898, numbered 23,730, while those on village realty were 17,622. The farm mortgages reached \$5,053,804, and the village and city property \$16,195,199. The rate of interest averaged 7 per cent. The mortgages

discharged numbered 36,914—22,491 on farm and 14,428 on village property, representing an aggregate of \$26,766,048, \$15,102,264 of which was on farms.

Products.—The gold output of the State in 1898 is given as \$65,000 in value, against \$62,700 in 1897. The output of coal in the State the past year was 331,476 short tons. The report of the Labor Commissioner says that, although not more than one third of the iron mines in the State were in operation during the past year, the output has been far greater than during any year in the history of Michigan. The report not only embodies the mineral statistics, but also includes a summary of the Michigan sandstone quarries' enterprise, which is in its infancy. Four companies quarry red sandstone at Portage Entry, Houghton County, of which but two were in operation in 1897, and there is one at Marquette which produces brown sandstone, which has been used considerably in the construction of fine buildings. A good stone of this sort has been found in Alger, Marquette, Baraga, Houghton, and Ontonagon counties.

The wheat crop of 1898 was the greatest in the history of the State. The number of acres of growing wheat in the State last spring was 1,730,224; the average yield per acre is 19.12 bushels, and the total yield in the State 33,083,261 bushels.

Court Decisions.—In an action brought to recover \$500 lost in a bet on an election, the Supreme Court decided that the case did not come under the statute providing that money or any article of value lost by playing or betting on cards, or by any other device in the nature of such playing and betting, might be recovered after having been delivered to the winner; that betting on the result of an election is not a device of that nature.

The Supreme Court decided in December that express companies must pay for the one-cent revenue stamps used on receipts, and not charge them to shippers.

An action was brought to restrain the State printers from publishing a compilation of the statutes ordered by the Legislature, on the ground that it infringed the copyright on a previous compilation, which it was claimed the later compiler had followed and used. The United States Supreme Court held that the instances cited to show plagiarism were not numerous enough and of such character as to justify interference by the Court.

Ex-Gov. Blair.—On Oct. 12 about 25,000 residents of the State outside the capital visited Lansing to witness the unveiling of a statue of Austin Blair, erected on the Statehouse grounds, to commemorate Michigan's war Governor. Many veterans of the civil war marched in the parade, an impressive feature of which was torn and blood-stained battle-flags, which were brought out of the Statehouse for the first time since they were deposited there. The statue was presented to the State by Gen. W. H. Withington, of Jackson, Gov. Blair's home. The Legislature of 1895 appropriated \$10,000 for the statue, and provided for a commission of three for carrying out the work.

Legislative Session.—The Governor called an extraordinary session of the Legislature, to begin March 22. The call cited the requirement of the Constitution that the Legislature shall provide a uniform rule of taxation, and that assessments shall be on property at its cash value, and said further:

"In violation of the spirit, if not the letter, of these provisions of this Constitution, laws have been passed from time to time by which railroad companies, express companies, telegraph and telephone companies now owning, according to their sworn returns, at least one third of the property of this State, are required to pay only about one twenty-sixth of the taxes levied for State, county, and mu-

nicipal purposes. Taxation has, in many parts of the State, become in the nature of confiscation, the amount levied being greater than the property taxed can be made to produce."

The Governor issued also a proclamation calling the attention of persons and corporations to the statutes prohibiting the offering and receiving of gifts to legislators, and warning those who had been violating them that the Governor would do his utmost to enforce them, adding:

"The acceptance of a pass upon railroads in this State is not only a crime against the statute, but against the school children of the State. Every pass given makes the earnings of the railroad so much less, and as at present we only collect as taxes a percentage on earnings which goes to the school fund, every man who accepts a pass robs that fund of the percentage to which it is entitled. What is said of passes is also true of reduced fares, under whatever pretense they may be offered. Even the clergyman who rides at a reduced rate is expected to make some return to the railroad company, and in riding at the reduced rate he deprives the school fund of the money to which it is entitled, and encourages the railroad companies to make false returns and cheat the State out of its proper dues for taxes."

Bills were introduced providing for increased taxation of corporations, but none were passed except an amendment to the law for licensing and taxing express companies incorporated in other States, raising the levy from 1 per cent. of their gross receipts in the State to 5 per cent. The constitutionality of this bill is questioned.

The validity of the law under which the State has conveyed lands taken for delinquent taxes was before the courts this year in several suits. The Legislature passed an act to "suspend the refunding by the Auditor General of moneys to purchasers of certain tax titles held invalid, and to prohibit proceedings for the recovery of the same."

In all eight bills and three concurrent resolutions were enacted into law. Those not already mentioned were:

Authorizing a war loan of \$500,000 and providing for the disbursement of the proceeds therefrom, and providing for a war loan sinking fund.

To promote the efficiency of the Michigan National Guard and naval militia.

Providing for submitting to the electors the question of a general revision of the Constitution of the State.

To protect members of the State militia and all citizens of the State of Michigan in the service of the United States and their property from execution, seizure, and levy, and to provide for the continuance of pending suits in law and chancery in the event of war.

For the protection of homesteaders.

Political.—Municipal elections were held April 4 in all cities of the State except Detroit and Port Huron. Republican mayors were elected in Flint, Coldwater, Cadillac, St. Louis, Bay City, Lapeer, Battle Creek, Adrian, St. Clair, Stanton, Ludington, Menominee, Greenville, Tawas City, Sault Ste. Marie, Hillsdale, Eaton Rapids, Gladwin, Holland, Midland, Traverse City, Big Rapids, Belding, Niles, Muskegon, and Alpena. Democratic, Fusion or Silver Party mayors were chosen in Sturgis, Ionia, Albion, Benton Harbor, Charlotette, Jackson, Kalamazoo, Ypsilanti, Owosso, Hudson, Marine City, Monroe, St. Ignace, St. Joseph, Marshall, Clare, Manistee, Mt. Pleasant, Dowagiac, Hastings, Grand Haven, Three Rivers, and Saginaw. Non-partisan tickets were successful in Corunna, Escanaba, Marquette, Gladstone, and Iron Mountain. The Labor party elected a mayor in Ishpeming.

A conference of the People's party was held March 10, with a view to bringing the whole party to act together in the election this year, but the object was not attained, and the Middle-of-the-road division called a convention to be held at Grand Rapids June 21. At that time resolutions were adopted that denounced fusion, declared direct legislation and the money question to be the paramount issues, and demanded the repeal of the national banking law, establishment of postal banks, a graduated income tax, Government ownership of railroads, telegraph, etc., the purchase by the Government for actual settlers of all lands owned by corporations in excess of their needs, prohibition of alien ownership of land, taxation of all property at its true cash value, and the establishment of a forestry commission; denounced war bonds, asked for more greenbacks and free coinage, and declared that no officeholder should hereafter be a delegate.

The following nominations were made: For Governor, Sullivan Cook; Lieutenant Governor, Austin S. Randall; Secretary of State, Jonas M. Borough; State Treasurer, Robert Bienhuber; Auditor General, Archibald Malone; Attorney-General, S. G. Houghton; Land Commissioner, J. H. Baker; Superintendent of Public Instruction, Philander Brant; Member State Board of Education, M. O. Graves; candidates for the Board of Education were afterward Disen J. Parker and William Warner.

The ticket of the Socialist party was: For Governor, Mr. Hasseler; Lieutenant Governor, Joel Dugrey; Secretary of State, Peter Friesema; Treasurer, Henry Sievers; Auditor, Anthony Louwet; Land Commissioner, Gustav Zander; Attorney-General, W. W. Wittenberg; Superintendent of Public Instruction, Joseph Kopyskiewicz; Member of the Board of Education, Louis Erb.

The Democrats, Silver Republicans, and one wing of the Populists met at Grand Rapids June 22. The platforms were modified somewhat in the way of compromise. Following are the nominations, which were ratified in joint convention: For Governor, Justin R. Whiting, Democrat; Lieutenant Governor, Michael F. McDonald, Democrat; Secretary of State, L. E. Lockwood, Populist; Auditor General, John L. Frisbie, Silver Republican; State Treasurer, Dr. Edgar B. Smith, Democrat; Attorney-General, Royal A. Hawley, Silver Republican; Land Commissioner, Carlton Peck, Populist; Superintendent of Public Instruction, Mrs. Florence Renkes, Silver Republican; Member State Board of Education, George E. Willetts, Populist.

There was an effort to defeat the nomination of Mrs. Renkes on the ground that a woman is not eligible under the State Constitution, but an authority on constitutional law decided in her favor, and her nomination was made unanimous.

The Prohibitionists held a convention at Lansing Aug. 23. The platform declared that the only remedy for the liquor evil is a political party united on that issue, as all other parties are hopelessly divided on it. The party in power was arraigned as a license party. The resolutions therefore declared for the complete outlawry and suppression of the entire traffic in alcoholic liquors, and for very rigid regulations governing the manufacture and sale of alcohol for legitimate uses. They favored making a fair and thorough trial of "the initiative and referendum," and demanded the abolition of all distinction of sex in regard to suffrage. The nominations were: For Governor, Noah W. Cheever; Lieutenant Governor, N. Horton Clark; Secretary of State, John Sweet; State Treasurer, Robert King; Auditor General, Henry Andrus; Land Commissioner, John Van Zollenburg; Attorney-General, Myron H. Walker; Superintendent of Public In-

struction, David S. Warner; Members State Board of Education, Delevan B. Reed, William C. Clemo.

The Republican convention met in Detroit Sept. 21. The resolutions said, in part:

"We indorse the present national administration, and express confidence in the honesty, integrity, and patriotism of President McKinley.

"We indorse our honored Secretary of War, and commend his conscientious, patriotic, and unselfish devotion to the honor of the nation and the welfare of the army. We denounce the unjust attacks made on him, and offer him our undivided support and confidence.

"We reaffirm the principles of the St. Louis platform, and pledge them our support as a sure guarantee of national prosperity and honor."

The platform congratulates the country upon returning prosperity under Republican rule and the operation of the Dingley law; offers honor and devotion to the volunteers from Michigan in the war; congratulates the nation upon its land and sea victories, and leaves the future destiny of the peoples over which the nation has gained control through the war confidently to the hands of the properly delegated authority. The administration of Gov. Pingree is commended, especially his care and energy in equipping and caring for the interests of the troops and their families. The paragraph concerning State taxation is as follows: "We commend the present administration for its earnest efforts in favor of the equal and just taxation of the property of railroad, telegraph, telephone, and express companies. We favor the immediate repeal of the tax upon the gross earnings of railroad, telegraph, and express company property, this statute to be determined by a State board. The taxes collected therefrom should be paid into the primary school fund. We indorse the principles of the Atkinson bill, and pledge the support of the Republican party thereto. We favor also the readjustment of the assessment laws of this State, so that all taxable property shall be placed upon the assessment rolls at a just value, and be taxed equally with all other taxable property in the State."

The ticket follows: For Governor, Hazen S. Pingree; Lieutenant Governor, Orrin W. Robinson; Secretary of State, Justus S. Stearns; Auditor General, Roscoe D. Dix; Attorney-General, Horace M. Oren; State Treasurer, George A. Steel; State Land Commissioner, William A. French; Superintendent of Public Instruction, Jason E. Hammond; Regent of the University (short term), Eli R. Sutton; Regent of the University (long term), J. Byron Judkins; Member of State Board of Education (short term), E. F. Johnson; Member of State Board of Education (long term), F. A. Platt; Chairman State Central Committee, Gen. Arthur F. Marsh.

The total vote for Governor was 421,164, being 126,638 less than that of two years ago. Gov. Pingree polled 243,239 votes, against 304,431 in 1896. This year he polled 57.76 per cent. of the total vote cast for Governor, an increase of 2.19 per cent. over his proportion two years ago. The vote for Governor stood: Pingree, 243,239; Whiting, Democrat, 168,142; Cheever, Prohibitionist, 7,006; Cook, Populist, 1,656; Hasseler, Socialist-Labor, 1,101. All the Republican candidates for State offices were elected. The Legislature stands: Republicans in the Senate, 27; in the House, 93; Democrats in the Senate, 5; in the House, 7.

Michigan's Representatives in the Fifty-sixth Congress are all Republicans.

The proposition to revise the Constitution did not receive a majority of the highest number of votes cast at the election, and for this reason it is claimed that it did not carry, although it received a substantial majority of the votes cast on that subject.

MINNESOTA, a Western State, admitted to the Union May 11, 1858; area, 83,365 square miles. The population, according to each decennial census since admission, was 172,023 in 1860; 439,706 in 1870; 780,773 in 1880; and 1,801,826 in 1890. By the State census of 1895 it was 1,573,350. Capital, St. Paul.

Government.—The following were the State officers during the year: Governor, David M. Clough; Lieutenant Governor, John L. Gibbs; Secretary of State, Albert Berg; Treasurer, A. T. Koerner; Auditor, R. C. Dunn; Attorney-General, H. U. Childs; Adjutant General, H. Muehlberg; Superintendent of Education, W. W. Prendergast; Commissioner of Insurance, E. H. Dearth; Labor Commissioner, L. Y. Powers; Bank Examiner, M. D. Kenyon—all Republicans; Chief Justice of the Supreme Court, Charles M. Start, Republican; Associate Justices, William Mitchell, Daniel Buck, and Thomas Canty, Democrats, and L. W. Collins, Republican; Clerk, Darius F. Reese.

Finances.—The total in the State treasury by the report to the Legislature of 1899 was \$872,574.69. The Auditor submitted his estimate of revenue receipts for the ensuing biennial period, based on a tax levy of 1½ mill. This rate, according to the estimate, will produce \$2,560,000 in the first year, and leave a surplus of \$279,000 over and above estimated disbursements; in the second year, \$2,655,000, with a surplus of \$110,000.

Gov. Lind recommended legislation for shifting more of the burden of taxation from the possessions of the poor to various forms of wealth that now escape. The law which now requires the payment of a minimum incorporation fee of \$50 to obtain a corporate charter, and, in addition, one tenth of 1 per cent. on the capitalization in excess of \$50,000, should, in his opinion, be extended so as to apply also to foreign corporations doing business in this State. The Governor also recommends the levying of an annual franchise tax upon corporations, foreign and domestic. He says: "The legislation now in force for taxing express, telegraph, telephone, and sleeping-car companies in this State is, in my judgment, radically defective, and should be revised. The rate imposed of 8 per cent. on gross earnings computed solely on local business—originating and ending within the State—is grossly inadequate. Situated as is our State on the highway of commerce between two oceans, with our large centers of population near the State lines, it is but a small proportion of our business that is strictly local—that is to say, business originating and ending within the boundaries of the State. To impose a percentage tax, or any tax levied directly on the gross earnings, State and interstate, of these monopolies, would be held a violation of the Federal Constitution. The tax, whether it be a 3-per-cent. or a greater rate, should be computed on a valuation of the corporation's property employed in its business in this State."

The average rate of gross-earnings tax collected in Iowa, Illinois, and Wisconsin is more than one third higher than the rate imposed in this State. In the opinion of the Governor, this is a state of affairs that neither the Legislature nor the executive can ignore; and he recommends a law by which railroad companies may have the choice between payment of a higher percentage on gross earnings and payment of a tax on their franchises and valuation.

Education.—Gov. Clough's message to the Legislature says: "In all departments the enrollment of students has increased faster than the population. The special schools for the blind, the deaf, and other defectives are each making improvements in methods of work, and in other ways are coming to deserve as well as to receive the commendation of

the philanthropic workers throughout the State and nation."

It is announced that a debt of \$36,000 on Hamline University has been paid this year by subscription, J. J. Hill leading with \$20,000.

Pillsbury Academy received \$250,000 from George A. Pillsbury.

In a suit for libel brought by the American Book Company against the publishers of a pamphlet by President Gates, of Iowa University, the decision given in March was in favor of the book company, with damages of \$7,500.

Seven years ago a system of free-school libraries was established in Minnesota, and now there are 2,800 of such libraries in the State, access to which is had by three fifths of the school children. The number of the libraries is rapidly increasing. The books are in charge of the teachers during the school terms, and are kept in the school buildings. During vacations they are in charge of the clerks of school districts, but the children have access to them. The State pays half the cost of buying new books for the school libraries up to \$40 on the first year that they are established, and thereafter up to \$20 a year.

Charities and Corrections.—The hospitals for the insane in the State contained, on July 31, 1898, a total of 3,265 patients, of whom 1,895 were men and 1,370 were women.

The number of convicts in the State Prison at Stillwater, according to the latest report at hand, was 469. The prison is now more than self-supporting, the net gain in earnings exceeding the expenditures.

The State Training School had an average number of about 367.

Railroads.—Minnesota, it is said, led the other States in railroad construction in 1898. The Railroad Commission has held hearings during the year in reference to freight rates on iron ore, but apparently the decision had not been reached at the close. Testimony was given, "on the part of iron-ore men and sales agents, to the effect that reductions in freights by the ore roads of Minnesota would have no effect in helping the independent mine owners, who are supposed to have brought the case, but would simply result in giving the Eastern furnace men their ore at a cost less by just the reduction in rates than it had been before."

Insurance.—The commissioner refused to re-issue licenses to several mutual hail insurance companies on the ground that the losses are not paid promptly, and in many instances not at all; that the members of the companies are assessed several times as much as they should be; and that the officers are drawing enormous salaries and commissions in comparison with the amount of business done; and he gave notice to the officials that no officer shall receive more than \$2,000 a year salary, nor may he accept commissions of any sort. As to the assessment of members for losses, he stipulates that no assessment shall be more than one half mill on a dollar above what is needed to pay losses. In one company it appears that two officers drew nearly \$18,000 a year, while only about \$41,000 in actual cash was paid for losses.

State Lands.—The Auditor reports that several hundred thousand acres of swamp lands in the northern part of the State, within the granted limits of certain land-grant railroads, have been certified to the roads as inuring under the grant. The Governor says this is clearly erroneous, as the swamp-land grant antedates the railroad grants.

Farm Lands.—The Commissioner of Labor shows from statistics regarding foreclosures of mortgages on farms that there are not so many foreclosures as there used to be, and that there are fewer where

farming is diversified than in a one-crop country. They are now almost unknown in the richer agricultural counties where market and dairy farming are carried on.

Products.—The estimated wheat crop this year was 80,000,000 bushels; the estimated acreage, 5,250,000. If this estimate of the crop is at all accurate, the year is immensely beyond other recent years in this respect.

There has been great growth in the dairy industry within a few years. The principal of the dairy school at the State University gives the following information concerning it:

"The cost of manufacture in this State has been reduced to a lower point than in any other State. D. B. White at the dairy convention held at Albert Lea in December, 1898, said: 'The cost to make a pound of butter in the best creameries in the county for 1894 was from 1.69 cent to 1.95 cent, and averaged 1.76 cent. The cost for the year 1895 ranged from 1.41 cent to 1.88 cent, and averaged 1.65 cent.' During the years 1896 and 1897 some of the financial statements of our best-managed creameries show that they have succeeded in reducing the average annual cost of manufacture to 1.28 cent a pound, and that, too, without reducing the wages of the employees. When we consider that the prevailing cost of manufacture in other States is about 3 cents a pound, we can readily see why the creamery business is giving such good satisfaction in this State. During 1896 it cost \$22.12 to feed a cow, and the average milk yield was 7,454 pounds per cow. This made the average butter yield per cow 349 pounds, and the cost per pound was 6.3 cents per pound. During 1897 the average cost of producing a pound of butter was 4.7 cents. Taking the average for the last two years, we have the several costs as follows: Cost of butter production, 5.5 cents; cost of manufacture, 2 cents; cost of transportation to seaboard, 1.25 cent; commission, 1 cent; total, 9.75 cents. Our butter during that period sold on an average for 18½ cents a pound. If we add to this the value of the skim milk, we have a net return for the feed consumed by the cow of nearly 200 per cent."

A conservative estimate makes the number of dairy cows in the State 830,000. Not only have the cows increased greatly in numbers, but the annual yield of milk per cow has also increased. There are therefore about 435,000 cows contributing milk to the 650 creameries, and they distribute to the patrons \$9,550,000 annually. But this has reference only to the amount of money received by the patrons, which is only about 84 per cent. of the actual receipts, the 15 per cent. making up the expense account and the reserve fund, which is used in paying for the plant and maintaining the equipment. This makes the actual income from the 650 creameries in round numbers \$11,800,000.

At the dedication of the Minnesota building at the exposition at Omaha—a building made entirely of pine logs from the forests north of St. Paul and Minneapolis—the Governor said: "Minnesota produces more iron ore than any foreign nation excepting one; and in 1900 it will lead every country in the world."

St. Paul.—It appears from comparison of the number of families who own their homes in 28 cities of more than 100,000 population that only 3 have a larger percentage than St. Paul, in which 40 per cent. are owners of their homes.

Duluth.—A fire in this city just above the ship canal on May 8 rendered 2,000 persons homeless.

Pennington.—This village was practically destroyed on May 18 by a tornado; 3 persons were known to have been killed and 50 injured.

The New Capitol.—The corner stone of the new Capitol was laid on Aug. 8. The following is

taken from the introductory address by Commissioner Graves:

"Only forty-nine years ago, in September of the year 1849, the first Territorial Legislature of Minnesota assembled in a log building at the corner of Bench and Minnesota Streets, in this city, immediately upon the bluff overlooking the Mississippi river, and after listening to an address by the Hon. Alexander Ramsey, first Governor, proceeded to make laws for Minnesota, then a Territory of less than 6,000 people. Gov. Ramsey is present to-day to assist his successor in the duties of this historic occasion—his successor who to-day is the executive of a great State of nearly 2,000,000 of people and over \$700,000,000 of accumulated wealth. From the humble log cabin of 1849 and the buildings rented for State purposes in succeeding years the State departments in 1858 moved to the first building built for a Capitol. But of that structure it is recorded that, until 1866, the legislative halls were lighted during night sessions with candles, that it was heated by wood-burning stoves, and that all the water used in it was brought there by carts. When fire destroyed it, in 1881, the present Capitol on Wabasha Street was built, and has been occupied by the State government to the present time."

The building will be a somewhat plain structure, surmounted by a dome, and will be about 200 x 400 feet in size.

Military.—The State sent 4 regiments to the Spanish war. The Thirteenth Minnesota led in the attack on Manila, Aug 13, and 18 of the 36 wounded were Minnesota men. The expense incurred in organizing the 4 regiments was \$143,164.84. The expense of caring for the sick soldiers and sundry allied objects amounted to \$10,000.

There was an outbreak in October by the Pillager Indians, a tribe of the Chippewas. The occasion was the attempt to make arrests for violations of law. The following statement has been made in regard to their provocation:

"It appears that these Indians have been victims of injustice of long standing. Ten years ago they agreed to cede to the United States their surplus land, and it was provided by law that the value of the land should be determined within a 'reasonable time,' on the basis of the pine growing thereon. The 'Chippewa Commission' was created for this purpose, and the high-salaried commissioners have gone leisurely forward with the work for ten years, at a cost of hundreds of thousands of dollars to the Indians. All kinds of frauds have been perpetrated meanwhile, the timber has been grotesquely underestimated, and desirable lands sold for much less than their value, and unscrupulous lumber companies and individual lumbermen have cheated and robbed the Indians."

Gen. Bacon went to Walker with a small force to assist the United States marshal in making arrests among the Indians at Bear Island. A conference was held with the chiefs, who refused to give up the men wanted, and the troops proceeded to take them by force, and were trapped by an ambush. In the fight that followed on Leech Lake, Oct. 5, 6 soldiers were killed and 11 soldiers and 5 civilians were wounded. The number of Indians killed was supposed to be about 30. Re-enforcements were sent to Gen. Bacon, but there was no more fighting. All but 2 of the men for whom the warrants were issued had given themselves up or been taken by Oct. 17. Leech Lake, the scene of the trouble, is in Cass County, 100 miles west of Duluth.

Another grievance of the Indians which has been supposed to have been connected with the outbreak is in regard to the taking of dead-and-down timber on the reservation by half-breeds from other reservations which was allowed by Government officials.

In December the Federal Land Commission made public the report of two agents who had been investigating, denying that there was any basis for the charges concerning the logging operations.

Political.—State officers were elected in November. Tickets were put up by Republicans, Democrat-Populists, Prohibitionists, Populists, and the Socialist-Labor party.

The Democrats, Silver Republicans, and Populists held conventions at Minneapolis, June 15. "A committee of seven from each convention, to act in joint conference, was appointed without trouble by both the Democrats and Silver Republicans, but with the Populists the friction was so great that the entire day was consumed in discussion. Both the Democrats and the Silver Republicans indorsed the Chicago platform and the candidacy of William J. Bryan for the presidency. The Silver Republicans also indorsed the initiative and referendum. A joint conference committee held a lively session, and it was agreed to divide the offices to the three parties, allowing the conventions to make the nominations. John Linde, the Silver Republican, who had been candidate for Governor twice, was indorsed for that office. To the Populists were allowed the offices of Lieutenant Governor, Auditor, Attorney-General, and Clerk of the Supreme Court. To the Democrats were given the nominations of the Secretary of State, State Treasurer, and one of the judges of the Supreme Court. The joint conference committee recommended that Judges Buck and Canty, at present sitting, be named by the three parties."

John Lind was nominated by the three conventions for Governor; J. M. Bowler, nominated by the Populists and indorsed by the others, for Lieutenant Governor; J. J. Heinrich for Secretary of State; Alexander McKinnon for State Treasurer; Justices Mitchell, Canty, and Buck for the Supreme Court bench; for Auditor General, George M. Lamphere; Attorney-General, John F. Kelly; Clerk of Supreme Court, Z. H. Austin.

The platform of the Democratic convention charged that State land has been frittered away at ridiculous prices, and that taxes have been increased. It said, in part: "Our banking institutions, established to care for the deposits of the people, have not had their condition of solvency or insolvency examined by a competent bank examiner. The offices of the Clerk of the Supreme Court, oil inspection, and surveyor of logs have been allowed to demand and receive exorbitant fees, amounting to about \$50,000 annually. Our railroad and warehouse commission has failed to fully protect the people. Unjust discriminations and exorbitant charges in railway rates demand proper regulations by this commission."

The majority of the Populists having agreed upon the compromise plan of fusion with the other silver parties, the minority bolted and held a convention the next day, nominating the following: For Governor, L. C. Long; for Lieutenant Governor, Kittell Halverson; for Secretary of State, M. Wogenberg; for Auditor, Charles Hopkins; for Treasurer, P. H. Rahilly; for Attorney-General, John F. Kelly; for Clerk of the Supreme Court, A. L. Stromberg. The resolutions affirmed fusion to be wrong on principle. The convention declared in favor of Ignatius Donnelly for United States Senator.

The Republican State Convention met in St. Paul, June 30, and nominated the following: For United States Senator, Cushman K. Davis; Governor, William Henry Eustis; Lieutenant Governor, Lyndon A. Smith; Secretary of State, Albert Berg; State Auditor, Robert C. Dunn; State Treasurer, August T. Koerner; Attorney-General, Wallace B. Douglas; Clerk of Supreme Court, Darius F. Reese;

Justices of the Supreme Court, John A. Lovely, Calvin L. Brown, Charles L. Lewis. The platform commended the tariff legislation of 1897, approved the Administration in its treatment of our foreign relations and its management of the war with Spain, and favored immediate annexation of Hawaii; it said the Nicaragua Canal should be constructed and under control of the United States Government; declared for the gold standard; and praised Senators Nelson and Davis. It commended the State administration, and recommended legislation to secure good roads.

John Lind, candidate for Governor on the fusion ticket, was elected by a vote of 132,024, against 111,625 for Eustis, Republican, 5,308 for Higgins, Prohibitionist, 1,766 for Long, Populist, and 1,657 for Hammond, Socialist.

The Republican candidates for all the other State offices were elected.

All the seven members of Congress elected are Republicans. The Legislature stands: Republicans in the Senate, 44; in the House, 93. Democrats in the Senate, 18; in the House, 25. Independents, 1 in each house.

Four proposed amendments to the Constitution, which had passed the Legislature, were submitted to voters and were ratified. They were:

1. Permitting women to vote for members of library boards and to be eligible to become members of such boards, in addition to the right to vote upon school matters and to hold offices pertaining to schools, as provided by the original section of the Constitution.

2. Providing that constitutional amendments shall be voted upon at general elections, and requiring, to carry them, a majority of all votes cast at the election.

3. Revising the amendment of 1896 relating to city charters. The term of office of the local commission for drafting a charter is limited to six years instead of being unlimited, as before. The commission must submit proposed amendments to vote when petitioned by 5 per cent. of the legal voters. Cities are divided into four classes instead of three.

4. Providing for the establishment of a State highway commission, and of a fund to receive proceeds of internal improvement land fund and of State tax of not over $\frac{1}{10}$ of a mill.

Decisions.—An amendment to the general banking law relating to the minimum amount of capital, organization, rate of interest, liabilities, loans on shares, and available funds to be kept on hand was declared by the Supreme Court to be void because not passed by a two-third vote.

A law providing for a commuted system of taxation of mining property and products by payment of a fixed sum per ton for all ore mined was declared in conflict with the constitutional provision that all taxes shall be as nearly equal as possible.

MISSISSIPPI, a Southern State, admitted to the Union Dec. 10, 1817; area, 46,810 square miles. The population, according to each decennial census since admission, was 75,448 in 1820; 136,621 in 1830; 375,651 in 1840; 606,526 in 1850; 791,305 in 1860; 827,922 in 1870; 1,131,597 in 1880; and 1,289,600 in 1890. Capital, Jackson.

Government.—The following were the State officers during the year: Governor, A. J. McLaurin; Lieutenant Governor, J. H. Jones; Secretary of State, J. L. Power; Treasurer, A. Q. May; Auditor, W. D. Holder; Superintendent of Education, A. A. Kincannon; Attorney-General, W. N. Nash; Adjutant General, William Henry; Chief Justice of the Supreme Court, Thomas H. Woods; Associate Justices, S. H. Terral and Albert H. Whitfield; Clerk, Edward H. Brown—all Democrats.

Finances.—The receipts for the fiscal year from Oct. 1, 1896, to Sept. 30, 1897, were \$1,492,978.92; and there was \$18,006.68 balance in the treasury on Oct. 1, 1896, making a total of \$1,510,985.60; of said balance only \$506.68 was available, the remainder being a donation of the United States to the Agricultural and Mechanical Colleges. Disbursements amounted to \$1,457,184.54. The total amount of warrants issued by the Auditor was \$1,381,518.30. Receipts from State tax privileges amounted to \$352,112.56; from land purchases, \$18,470.60; from State tax of 1896, \$990,583.48. Among the disbursements were: Judiciary, \$86,565; executive, \$25,114; common school fund, \$673,442; pension fund, \$73,311; legislative fund, \$32,875; commission for assessing, \$50,394; Chickasaw school fund interest, \$52,391; University of Mississippi, \$37,643; Lunatic Asylum, \$82,576; Deaf and Dumb Institute, \$32,031; East Mississippi Insane Asylum, \$43,085; Agricultural and Mechanical College, \$39,085; Industrial Institute and College, \$23,410; Alcorn Agricultural and Mechanical College, \$18,960; Vicksburg City Hospital, \$12,809; State Board of Health, \$14,894; interest on 6-per-cent. bonds, \$29,976; canceled land patents, \$11,327; Agricultural and Mechanical College congressional fund, \$20,791; interest on 5-per-cent. bonds, \$19,325. The total State debt was \$2,703,550.94; total collections made by the State Revenue Agent, for the two fiscal years, \$57,856.27. During 1897, to meet the necessities of the treasury, the Governor borrowed from the First State Bank of Columbus \$25,000, at 5 per cent. per annum; from E. & S. Virden \$10,000, at 5½ per cent.; and from the Manhattan Savings Bank and Trust Company of Memphis \$50,000, at 5 per cent. [As only biennial reports are made, some of the figures in this paragraph are necessarily the same that were given in the "Annual Cyclopædia" for 1897.]

Banks.—The following is a recapitulation of all the State banks: Overdrafts secured, \$767,170.60; overdrafts unsecured, \$230,096; State bonds, \$127,035.87; stocks, \$325,118.21; loans and discounts, \$9,132,712.65; county bonds, \$90,783.20; levee bonds, \$101,799.50; city bonds, \$135,804.40; banking houses, \$230,250.61; other real estate, \$238,611.97; furniture and fixtures, \$89,396.48; expenses, \$127,137; taxes, \$73,182.76; sight exchange, \$2,040,185.32; cash on hand, \$1,276,053.41; resources and liabilities, \$14,988,238.48; capital paid in, \$3,700,594.64; surplus, \$432,128.09; undivided profits, \$631,652.95; deposits liable to check, \$3,643,050.11; time certificates deposit, \$626,565.37; bills payable, \$539,284.29; due other banks, \$248,722.41; rediscounts, \$152,819.76; cashiers' checks, dividends, etc. \$101,420.86.

Valuation.—The valuations according to the last assessment are: Realty, \$113,210,931; personality, \$44,994,791; polls, at \$2 each, \$264,847; railroads, telegraphs, express and sleeping cars, \$24,682,876; total valuation, \$182,888,598; tax, at 6¼ mills, \$1,718,469.80.

Education.—The Superintendent of Education reported that "although the State has been afflicted with epidemics of smallpox and yellow fever, working incalculable injury to labor and capital, although an unprecedented drought has parched the eastern prairies and a devastating flood has swept over the valleys of the west, although the State's principal commodity has fallen to the cost of production, the school system of the State has steadily prospered. In many counties the enrollment of pupils has increased, the school term has been lengthened, better teachers have been employed, new schoolhouses have been built, and an educational sentiment has been aroused. Gradually the people are realizing that the public school is the hope of the State, and

that the school tax is immediately returned to them in the education of their children."

During the scholastic year of 1896-'97, 363,758 pupils were enrolled in the public schools, 165,878 being white and 197,875 colored; for the year 1896-'97, 367,579 were enrolled, 170,811 being white and 196,768 being colored. The report continues: "It is apparent that nearly 200,000 children in Mississippi of educable age do not attend the public schools. Assuming that 25 per cent. of this number attend the private schools of the State, a vast number will receive no instruction. Every person who thinks will ask why this large number of children are out of school. That they will some day prove a menace to the welfare of the State can not be doubted. Unquestionably the absence of these children from school is attributable to the indifference or ignorance of their parents. Too often children of tender years are required to begin the task of bread winning, and are kept out of school that their labor may complement that of the father, or possibly to relieve the father in great measure from labor." The superintendent asked the Legislature to authorize him to have "the newspaper adopted as a text in the public schools."

Schools for Indian children have been maintained in the counties of Leake, Neshoba, Kemper, Newton, and Greene. The supervisor of these schools says in his report: "The greatest obstacle in the way of the educational and religious progress of our Mississippi Choctaws is the Indian ball play as it has been conducted for the past fifteen years. To put it mildly, the ball play is the most demoralizing institution in Mississippi. It is, in a great measure, nowadays, manipulated or controlled by a white swashbuckler element; and gambling, whiskey drinking, fighting, and not infrequently bloodshed, have become the regular concomitants of the play. These facts are well known to every one living in the Indian counties, and the Indian church members who have a real desire for the improvement of their people are very anxious that the ball play should be abolished by law." It is given as an evidence of progress among the Indians that they are beginning to assume English surnames.

Penitentiary.—There were 911 convicts in the penitentiary in 1897. The financial condition of the penitentiary farms was given: Total receipts for 1896-'97, \$192,156.98; expenditures, \$141,920.76; cash on hand Jan. 1, 1897, \$50,236.22; total receipts, for 1897, \$120,436.44; expenditures, \$96,835.18; cash on hand Jan. 1, 1898, \$24,101.26; cash in Merchants' Bank, \$3,707.06. Cotton on hand, 3,477 bales; cotton seed, 1,720 tons; corn, 28,500 bushels; peas, 3,210 bushels. The report of the Board of Control says that "the system of contracting with landowners for planting operations on the share plan or any other basis is unsatisfactory. Issues constantly arise as to the method of cultivating the land and the mode of conducting the work between the State authorities and the landowner. It often happens that the latter fails to furnish the proper teams and sufficient food," and in some instances there has been friction between the State authorities and the landowners respecting the manner in which the convicts should be treated.

Insane Asylum.—In 1896 there were 751 patients, of whom 186 were white males, 209 white females, 174 colored males, and 182 colored females. Discharged recovered, 93—white males 30, white females 30, colored males 72, and colored females 16; discharged improved, 17. At the beginning of 1897 there were 782 patients—white males 195, white females 223, colored males 175, and colored females 189; admitted during the year, 273—white males 68, white females 76, colored males 72, and colored females 57; total present, 1,055—white males 263,

white females 299, colored males 247, and colored females 246; discharged recovered, 98—white males 23, white females 88, colored males 13, and colored females 24; discharged improved, 13—white males 3, white females 6, colored males 2, colored females 2; discharged unimproved, 11; died, 95—white males 29, white females 13, colored males 26, and colored females 27; remaining at the end of the year, 831—white males 191, white females 238, colored males 199, and colored females 193; daily average, 825. Total amount expended for the fiscal year 1896-'97, \$150,809.18; total amount appropriated for 1896-'97, \$190,000; unexpended balance, \$39,190.82.

Deaf and Dumb Institute.—The number of pupils enrolled in 1896-'97 was 114; average monthly attendance, 107. The superintendent reports that "while this statement of the attendance is very favorable when compared with the reports of former years, yet, when taken in connection with the uneducated deaf of the State, it reveals a lack of interest on the part of parents and guardians in the education of this class of children that is not only lamentable but is actually culpable."

Cotton.—The total crop of cotton in 1897-'98 was 1,524,771 bales. The total movement was 1,561,529 bales: By rail—to New England mills, 266,336 bales; to Mobile, 86,226; to Norfolk, 19,322; to Louisville, 11,452; to Savannah, 9,554; to interior Alabama points, 9,378; to Boston, 9,154; to interior Louisiana points, 7,982; to Brunswick, Ga., 7,975; to Pensacola, 5,465; to Virginia mills, 3,833; to North Carolina mills, 3,447; to Tennessee mills, 2,604; to Baltimore, 1,744; to Canada, 1,442; to Western mills, 1,368; to New York city, 1,152; to Philadelphia, 1,146; to Helena, Ark., 1,062; to Pacific ports, 1,020; to Ohio river points, 532; to Charleston, 405; to Newport News, 200; to Cincinnati, 96; to Augusta, Ga., 75; to North Atlantic ports, 50; to Chicago, 9; by rail and water to New Orleans, 812,364; by rail, river, and wagon to Memphis, 293,863; by rail and river to St. Louis, 2,273.

Race Trouble.—As the result of an attempt to arrest a negro near Harpersville, Scott County, in October, 1898, one white deputy was killed, three deputies were wounded, and fourteen negroes were killed. A news dispatch from the scene of the trouble gave the following account of the affair: "Last Friday a negro named Bill Burke had an altercation with his employer, Charles Freeman, a white man, in which the negro got the best of the difficulty. That night a crowd of white men went to Burke's house to arrest him, but he was not there. The white men decided to go back the next night, and the plan was not concealed from the blacks. Headed by Wallace Sibley, a white man deputized to arrest the man, the crowd went to Burke's house. When they arrived upon the scene and called for Burke they were greeted by a fusillade by negroes concealed in the bushes and in the house itself. Wallace Sibley fell dead at the first volley and three other white men were wounded. The whites returned the fire, but were unable to do any execution. During the night a large mob of whites went to Burke's house and got from his mother the names of all in the negro party which had ambushed the white men the night before. About forty negroes had gathered to prevent the arrest of Burke, and a list was made up at her dictation. All of them had fled before the crowd made their appearance the next morning. Then the search for each of the proscribed blacks began. Six of the negroes were found and killed by the crowd before the sheriff arrived. Gathering a posse, the sheriff started for the place, and when he arrived he was joined by crowds of citizens. The sheriff's pursuit resolved itself into a chase of the negroes implicated. At times several of them at-

tempted to make a stand together in the swamps against the whites, but they were forced to abandon their ground in every case."

Through the influence of the Governor and his attendants, quiet was eventually restored, and there was no further bloodshed.

Lynching.—On June 25, 1897, a negro man was savagely lynched in the village of Crystal Springs on a charge of murder. In April, 1898, the grand jurors of the Circuit Court for the Seventh Judicial District reported to Judge Robert Powell that with diligence, patience, and persistency they had spent more than a week "in the vain and futile attempt to identify and bring to the bar of justice the perpetrators of this most foul deed." Upon hearing the report of the grand jury, Judge Powell remarked: "The Court would be recreant to the duty that has devolved upon it, and to its own feelings, did the Court fail to say that it believes that this grand jury, at least, have done their whole duty conscientiously, faithfully, and fearlessly. It is passing strange to me, gentlemen, as you said in your report, that a cruel and diabolical murder could be committed right under the sound of the church bells, right in the sight of civilized people, in the broad-open daylight, in the crowded streets of a city, and men be summoned from the highest to the lowest stations in life, men from right along the highway where the procession passed, and yet not a single man can be found to identify a single individual who participated in that mob. Somebody, gentlemen, has committed cold-blooded, willful perjury beyond a controversy or a doubt. I am told that they had dust in their eyes. Somebody, gentlemen, had dust upon their consciences. And yet they say that the courts of the country are not doing their duty and criminals go unwhipped of justice, when the very men who should be law-abiding citizens, who stand well in the community, will come before the juries of the country and perjure themselves, and fail to tell the truth. Another thing, gentlemen, that passes my comprehension is that the highest peace officers in the country, who had sworn to protect their prisoners and to do their duty, could have a man taken away from them in the broad-open daylight, and yet not strike a blow for the law, and fail to recognize a single individual who had taken away their prisoner. That is the situation, gentlemen, in Copiah County. God help them!"

On Dec. 10, 1897, a negro named Charles Lewis, supposed to be the murderer of Mrs. Brown Smith and four of her children, in Lawrence County, was lynched. The following account of the affair was published: "The mob placed him alongside of several other negroes, and asked the little girl who was spared by the murderer to pick out the one who killed her mother. She at once pointed to Charlie Lewis. This strong evidence to the mob made it difficult for Sheriff Gassell, of Monticello, to induce the people to turn Lewis over to him for safekeeping. He assured them he would have the negro at Bankston Ferry yesterday morning at 10 o'clock for trial. As promised, he arrived there on time with Lewis, and another mob of 200 men, armed with shotguns and Winchesters, met him on the opposite bank of the river. Speeches were made by cool-headed men, among them being Hon. A. E. Weathersby, Senator from Lawrence County, and Rev. Drummonds, a Methodist preacher, who pleaded eloquently for the negro's life. Mr. Brown Smith, the man whose family was murdered, jumped upon the water-shelf of the little store gallery and pleaded with the crowd to be patient and not to rush hastily into a thing they might regret. He said that, while he did not doubt his child's word, yet she was so young that there was a possibility

she might have been mistaken. He said there was something in there (pointing to his left breast) which did not exactly satisfy him about the matter. After parleying, the mob, under the leadership of a few determined men, made a rush for the negro and succeeded in getting him from the deputies after a hard struggle. They then put a plow line around the negro's neck and ran up the hill with him. He was put on a big black horse and driven under a tree. After the halter was fastened to a limb the horse was driven from under him. His feet touched, but he was strangling, and Mr. Arrington, one of the lawyers, and another man cut him down. He could not speak. The crowd allowed him to be revived and then hung him in earnest. Lewis denied his guilt to the last."

A few days after this occurrence another negro, supposed to have been an accomplice of Charles Lewis, was put to death at Bankston Ferry.

Levees.—At the November election an amendment to the Constitution was adopted, providing that the commissioners of the several levee districts shall have power to cede all their rights of way and levees, and the maintenance, management, and control of the levees to the Federal Government. This action was brought about by the high water of 1897, when nearly all the levees gave way and the greater part of the alluvial district was disastrously overflowed. In December the United States Senate Committee on Commerce agreed to the report of the sub-committee appointed under the resolution of March, 1897, to investigate and report upon the floods in Mississippi river and their causes and prevention. The committee reported that the greatest and most destructive floods have come from the Ohio; that no adequate relief can be secured by reservoirs; and presented a comprehensive historical sketch of the levees and jetties along the Mississippi. With reference to the levees they say the experience of 1897 indicates that a complete inclosure of all the river basins will require considerably higher levees, from 3 to 6 feet; that no substantial relief from floods can be obtained by means of outlets; that only through properly constructed levees can relief be secured. They furnished an estimate of the cost of completing the levee system, putting the sum at \$18,000,000 to \$20,000,000, and the necessary time at four to five years.

Decision.—A suit brought by Amos Woodruff *et al. vs. the State, the Delta and Pine Land Company et al.*, begun in 1888, for relief from collection of taxes amounting to about \$1,500,000, was decided during the year. It was sought to subject to such taxes the lands owned by the defendants and claimed by them under a liquidating levee-tax title. The case was decided by the Chancery Court in favor of the defendants on the ground that the bonds sued on were special gold contracts and were not authorized by the statute creating District No. 1 of the Levee Board. That decision was affirmed by the Supreme Court of the State, and was then taken by the complainants, on a writ of error, to the United States Supreme Court and was reversed. This court confined itself to the single question of the validity of the bonds, and held that the issuance of special gold bonds was not in excess of the authority of the Levee Board. The case was thereupon remanded to the State Supreme Court, to be heard upon other questions raised by the demurrer to the bill. The effect of the decision is to sustain the title to the lands and the claim of exemption of the lands from the taxes of the levee district.

New Legislation.—Among the bills passed by the General Assembly were the following:

To provide for pensioning Confederate soldiers and sailors.

To authorize the Board of Levee Commissioners to issue certificates of indebtedness for the purpose of raising funds for high-water emergencies.

To require parallel railroads and railroads terminating at the same point to connect their tracks by switches for the transfer of freight cars.

To abolish corporal punishment in the Insane Asylum.

Resolution memorializing the Congress of the United States to enact a law to prohibit dealing in futures or gambling in farm products.

MISSOURI, a Western State, admitted to the Union Aug. 10, 1821; area, 69,415 square miles. The population, according to each decennial census since admission, was 140,455 in 1830; 383,702 in 1840; 682,044 in 1850; 1,182,012 in 1860; 1,721,295 in 1870; 2,168,880 in 1880; and 2,679,184 in 1890. Capital, Jefferson City.

Government.—The following were the State officers during the year: Governor, Lon V. Stephens; Lieutenant Governor, August H. Bolte; Secretary of State, Alexander A. Lesueur; Treasurer, Frank L. Pitts; Auditor, James M. Seibert; Adjutant General, M. Fred. Bell; Attorney-General, E. C. Crow; Superintendent of Education, John R. Kirk; Railroad and Warehouse Commissioner, T. J. Hennessey; Secretary State Board of Agriculture, John R. Rippey; Commissioner of Insurance, Ed. T. Orear—all Democrats, except Kirk, Republican. Chief Justice of the Supreme Court, Shepard Barclay; Associate Justices, Thomas A. Sherwood, James B. Ganett, Gavon D. Burgess, George B. Macfarlane, Theodore Brace, Democrats, and Walter M. Robinson, Republican; Clerk, J. R. Green, Democrat.

Finances.—At the beginning of 1897 there was a cash balance in the treasury of \$577,463; the receipts for 1897-'98 amounted to \$8,800,406.96; disbursements for the same period, \$7,980,760.53. The assessment upon which taxes were collected in 1896, including real and personal, railroad, bridge, and telegraph property, was \$1,021,993.628; the assessed valuation for 1898 was \$1,050,950,801, an increase of \$28,957,173. Revenues were derived from a tax of 25 cents on the \$100 valuation, levied upon real and personal property of individuals and corporations, from license taxes, tax on premiums received from foreign insurance companies, on merchants and manufacturers, and express companies, interest on balances with State depositories, an incorporation tax, notarial fees, and from sundry minor sources. The net reduction in the State debt during 1897-'98 was \$1,334,000. The certificates of indebtedness issued in 1897 and 1898 were: 1 certificate to the State Board of Education, in trust for School fund, dated July 1, 1898, to run twenty years, bearing 5-per-cent. interest, \$18,000; 1 certificate to the same board, in trust for the Seminary fund, dated July 1, 1898, to run twenty years, at 5 per cent., \$6,000; total certificates issued in 1897-'98, \$24,000. At the close of 1898 the State debt consisted of 5 34-per-cent. option bonds, redeemable after July 1, 1892; of 700 34-per-cent. option bonds, redeemable at the same time; and of 2,937 34-per-cent. option bonds, redeemable after Jan 1, 1893; total, \$3,642,000. Outstanding certificates were: 1 6-per-cent. School fund, \$2,909,000; 5 5-per-cent. School fund, \$249,000; 1 6-per-cent. Seminary fund, \$122,000; 19 5-per-cent. Seminary fund, \$1,113,839.42; total certificates, \$4,393,839.42; total of bonded debt and certificates at the close of 1898, \$8,035,839.42. The "certificates" of indebtedness are assets of the State, the principal not to be paid, and the interest accruing thereon can only be used in supporting public schools and the State university.

Banks.—There are 494 incorporated and 85 private banks in the State, which at the close of

business on July 14, 1898, reported as follows: Resources—Loans and discounts undoubtedly good on personal or collateral security, \$69,170,376.28; loans and discounts undoubtedly good on real estate security, \$6,991,521.34; overdrafts by solvent customers, \$771,803.34; United States bonds on hand, \$305,984.22; other bonds and stocks, \$5,896,487.87; real estate, banking house, \$2,249,049.38; real estate, other than banking house, \$1,159,213.07; furniture and fixtures, \$578,388.37; due from other banks, good on sight draft, \$17,872,944.21; checks and other cash items, \$1,816,523.04; national bank notes, legal tender United States notes, and gold and silver certificates, \$6,092,722.11; gold coin, \$3,201,406.73; silver coin, including pennies, \$669,420.51; all other resources, \$143,476.62; total, \$116,919,267.09. Liabilities—Capital stock paid in, \$20,408,270; surplus funds on hand, \$7,346,724.28; undivided profits, less current expenses and taxes paid, \$1,280,871.44; deposits subject to draft at sight by banks and bankers, \$6,106,200.11; deposits subject to draft at sight by individuals and others, \$62,725,948.38; deposits subject to draft at given dates, \$18,292,642.44; bills payable and bills rediscounted, \$642,096.57; dividends unpaid, \$54,323.69; other liabilities, \$60,190.18; total, \$116,919,267.09.

There are 226 building-and-loan associations in the State, 222 of which reported a total of liabilities and resources at \$18,255,186.22, making an aggregate with the banks of \$135,174,458.31.

Insurance.—The removal of the State insurance department from St. Louis to Jefferson City was effected in 1898. It is reported that the receipts of this department have increased largely over the receipts of former years, more insurance companies being now licensed than at any time in the history of the department. In the ten years from 1878 to 1887 the receipts of the department amounted to \$182,787.68, the disbursements in the same period being \$166,028.98, leaving a balance of \$16,758.98; in the ten years from 1888 to 1897 the total receipts amounted to \$272,455.58, and the disbursements to \$165,874.52, an excess of \$106,581.06. The receipts up to Dec. 12, 1898, were \$58,000, or \$22,180.85 in excess of expenditures of the department. The 24-per-cent. tax levied on the gross premiums of all insurance companies of other States doing business in Missouri during 1897, and paid up in 1898, amounted to \$233,306.17, the total sum being \$18,933.96 in excess of such taxes in the previous year. All the business of the insolvent companies which had been in course of settlement for twenty-one years was closed up, and \$17,333.33 of assets of the insolvent corporations was paid into the treasury, increasing the school fund to that amount.

Penitentiary.—At the beginning of 1898 there were 2,327 convicts in the penitentiary. An average of 1,362 daily during 1897-'98 were employed by contractors, at the rate of 50 cents per day, making a daily income for the institution of \$681. The surplus of cash on hand was \$8,552.63. The sum of \$29,545 was expended for a new cell-building, \$26,159 for a new shop-building, and 1,000 for books for the library. In his review of the institution for 1897-'98, the Governor said: "Not only is the financial status of the institution an excellent one, but the splendid discipline of the men maintained is worthy of notice and commendation. The old idea which prevailed so many years among prison officials, that men incarcerated for crime could only be controlled by harsh and severe means, that criminals had to be controlled by brute force, and that there was nothing in the nature of a convict that could be touched or softened by kind words or gentle manner, has been abandoned. In our penitentiary to-day the higher instincts of man are appealed to."

Insane Asylums.—The State supports 3 insane asylums, the Fulton, the St. Joseph, and the Nevada. In 1897-'98 the 3 contained 1,528 patients.

Government Lands.—In 1898 there were 498,264 acres of United States Government land subject to entry in the State, this being the only State containing Government lands for cash entry. These lands can be purchased at \$1.25 an acre, excepting such as were embraced in homestead entries and reverted to the Government; such can only be secured by homestead entry. One person can acquire title to but 320 acres. Homestead entries can only be made for 160 acres, but purchase may be made of an additional 160 acres.

Products.—The Labor Commissioner reported the surplus products of the State, "after having fed, clothed, and sheltered her 3,000,000 of inhabitants," as follows, shipped during 1897: Live stock—Cattle, 1,015,331 head; hogs, 3,415,459 head; horses and mules, 106,265 head; sheep, 387,385 head; poultry, 51,804,524 pounds. Farm crops—Wheat, 5,269,734 bushels; corn, 4,789,984 bushels; oats, 658,991 bushels; rye, 160,862 bushels; hay, 2,919,435 bales; grass-seeds, 228,783 bushels; flax, 34,512,819 pounds; cotton, 24,010,000 pounds; cotton-seed products, 15,844,000 pounds; tobacco, 1,379,235 pounds; castor beans, 1,114,055 pounds; popcorn, 48,830 pounds. Fruits and vegetables—Apples, 2,029,339 bushels; peaches and plums, 139,237 baskets; strawberries, 394,823 crates; small fruits, 134,478 crates; fruits and vegetables, 6,828,903 pounds; dried fruit, 1,883,602 pounds; potatoes, 150,268 bushels; onions, 19,664 bushels; melons, 4,447,273; canned goods, 8,466,621 pounds. Mill products—Flour, 2,625,607 pounds; cornmeal, 7,606,311 pounds; mill-feed, 40,954,916 pounds. Minerals—Coal, 1,981,397 tons; pig-lead, 50,600 tons; lead and zinc ore, 235,333 tons; iron ore, 61,960 tons; pig-iron, 12,080 tons; chats, 83,200 tons; charcoal, 183 cars; nickel, 2,000 tons; granite, 1,944 cars; fire-clay, 3,018 cars; lime and cement, 723,707 barrels; plate glass, 223 cars; tiff, 2,400,000 pounds; tripoli, 4,170,606 pounds; barytes, 17,000,000 pounds. Timber—Lumber, 365,320,523 feet; logs, 14,742,000 feet; walnut logs, 3,168,000 feet; piling, 13,986,000 feet; cross-ties, 4,053,686; cordwood, 119,458 cords; cooperage, 4,410 cars. Miscellaneous—Molasses, 124,266 gallons; honey, 65,215 pounds; beeswax, 3,798 pounds; wine, 2,005,791 gallons; cider and vinegar, 568,382 gallons; wool, 2,478,025 pounds; eggs, 34,314,133 dozen; butter, 3,378,272 pounds; cheese, 463,203 pounds; fish, 850,397 pounds; game, 2,288,315 pounds; dressed meat, 1,351,436 pounds; tallow, 2,489,994 pounds; hides, 9,903,842 pounds; furs, 293,997 pounds; feathers, 487,300 pounds; nuts, 51,952 bushels; milk, 474,731 gallons.

Lynching.—An excursion boat from Quincy, Ill., and Hannibal, Mo., arrived at Clarksville in June, with about 300 negroes on board. "They got into a free-for-all fight," according to a newspaper report, "and City Marshal Meloan went on board to quell it. He put Curtis Young under arrest, when somebody in the crowd shot the marshal in the back, killing him. A posse of fifty citizens gathered and went on board the boat, and arrested Sam Young, Curtis Young, Bob Taylor, and Charles Taylor (all colored), and took them to jail. During the night Sam and Curtis Young were taken from the jail and hung."

In the same month Henry Williams (colored), charged with an assault on some white girls, was hanged at Wabash bridge, Macon Co. A dispatch from the scene thus described the affair: "Williams died protesting his innocence. Rev. J. A. Robbins, Sheriff Glenn, and Mr. McVicker made speeches, pleading with the would-be lynchers to let the law take its course. Robbins was hooted down, and

McVicker was knocked senseless. The sheriff and his deputies were overpowered and disarmed, and the jail was broken into. When the bridge was reached Williams was asked whether he would rather be hanged up and strangled slowly, or allowed sufficient drop to break his neck. He said he did not care. His nerve was phenomenal. The mob finished its work with dispatch and quietly dispersed."

In September Benjamin Jones (white), sixty-eight years of age, was taken from the Liberty County jail by about 75 men and hanged. He had confessed to an assault on a girl eleven years old.

Political.—At the November elections the State went Democratic by less than 25,000, there being a loss of 65 per cent. compared with 1896. The pluralities of the 12 Democratic Congressmen ranged from 2,000 to 3,500. In the retiring Legislature the Democrats and Populists had 52 on joint ballot; this election gave them 40, there being a Republican gain of 12 on joint ballot.

The State Democratic Convention, which met in Springfield on Aug. 11, nominated William C. Marshall for Judge of the Supreme Court for the long term, and Leroy B. Valliant for the short term; William T. Carrington for Superintendent of Public Schools, and William E. Scully for Railroad and Warehouse Commissioner. No other nominations were made, and the nominees were elected.

The platform of this convention approved that of Chicago in 1896, demanding free coinage of silver and gold at the ratio of 16 to 1, without waiting for the consent of any other nation, and confidence in William J. Bryan as the leading exponent of these principles was expressed. The Republican party was censured for nonenforcement of anti-trust laws. The issuance of interest-bearing bonds was condemned. The platform then continued:

"We assert that the declaration of war against Spain was justified by the causes which called it forth. We direct attention to the fact that the National Republican Administration, backed by the Republican majority in Congress, was opposed to war, and yielded only after delay to strong public sentiment aroused by the just and persistent demands of Democratic Senators and Representatives, foremost among them those from Missouri: and for their part in forcing the Republican President and Congress to defend the rights of our country, we extend them our hearty congratulation.

"We are opposed to waging a war for conquest, but as this war was forced upon us by the intolerant action of the Spanish Government and people, we declare it should be prosecuted until Spain is driven from the Western hemisphere.

"We favor carrying out in good faith the resolution of Congress under which we intervened in Cuba, and aiding the Cubans to establish and maintain an independent government of their own, if they desire this, and we will favor its peaceful annexation whenever it can be done with the consent of the people of the island.

"We are opposed to the acquisition of the Philippines or other territory in the Eastern hemisphere. We declare that as an important incident to war our Government should acquire all necessary harbor and coaling stations in the Philippines or elsewhere, and that the Treaty of Peace with Spain or any government established on the islands should guarantee to us commercial privileges equal to or superior to those enjoyed by any other nation.

"The Nicaraguan canal should be constructed and controlled by the United States."

The Populist State Convention, which met in St. Louis on July 7, split on the question of fusion, and two conventions were held, one by the "regulars" and one by the "middle-of-the-roads." The plat-

form of the regulars reaffirmed the principles adopted by the Omaha and St. Louis conventions, declaring that money for carrying on the war with Spain should be obtained by coinage of silver and the issue of legal-tender notes, and not by increase in taxes and enlargement of the public debt; that the present system of using bank credit as a circulating medium is extravagant and dangerous. The initiative and referendum were favored in the enactment of laws. The platform of the middle-of-the-roads was substantially the same.

The Republican State Convention met in St. Louis on Aug. 23. The platform congratulated the nation upon the unparalleled success of the administration of President McKinley; extended thanks to the army and navy for their achievements in the Spanish-American war; reaffirmed faith in the declaration of principles of the Republican party in 1896; favored an increase of the navy, an adequate system of harbor and sea-coast defenses, and the maintenance of a regular army sufficient to insure the safety of the nation at all times; favored the completion and control of the Nicaragua canal by the United States, and reasserted the Monroe doctrine in its full extent.

MONTANA, a Western State, admitted to the Union Nov. 8, 1889; area, 146,080 square miles. The population, according to the census of 1890, was 182,159. Capital, Helena.

Government.—The following were the State officers during the year: Governor, Robert B. Smith; Lieutenant Governor, A. E. Spriggs; Secretary of State, T. S. Hogan; Treasurer, T. E. Collins; Auditor, T. W. Poindexter, Jr.; Attorney-General, C. B. Nolan; Superintendent of Education, E. A. Carleton—all elected on a fusion ticket of Democrats and Populists; Adjutant General, James W. Drennen, succeeded by C. F. English; Commissioner of Agriculture, J. H. Calderhead; State Examiner, John G. Moroney; Land Agent, Henry Neill; Land Register, H. D. Moore; State Architect, C. S. Haire; Chief Justice of Supreme Court, W. Y. Pemberton; Fusion; Associate Justices, W. H. Hunt, Republican, and W. T. Pigott, Democrat; Clerk, Benjamin Webster, Republican.

Finances.—The following details regarding the State finances are from the Governor's message to the Legislature of 1899:

At the close of the fiscal year in 1896 there were outstanding warrants amounting to \$366,974.57, and deficiencies not represented by warrants amounting to \$51,237.15. To meet this indebtedness was the revenue for 1896, yet uncollected, amounting to \$286,902.76, and cash in the treasury on Dec. 1, 1896, amounting to \$21,239.38.

It thus became necessary for the present administration to pay off and discharge the large deficiency, \$51,237.15, in addition to running the expenses of the State for the next two years. During 1897 there was collected from all sources \$516,719.81, which, added to the cash on hand, Dec. 1, 1896, gave a total of \$537,959.19.

The warrants drawn during 1897 amount to \$525,520.07. During 1898 the warrants drawn aggregate \$474,658.40, and the total revenue for 1898 amounted to \$520,497; and during 1898 there has been paid out on warrants and interest \$520,494.76, leaving the cash balance on hand, Dec. 1, 1898, \$2.70; but there were warrants outstanding on Dec. 1, 1898, amounting to \$337,649.21. The total amount of deficiencies for the two years aggregates \$42,270.43.

By adding together the outstanding warrants on Dec. 1, 1896, and the deficiencies for that year, we have a total of indebtedness, \$418,011.82. Deducting from that the cash on hand in the treasury, \$21,239.38, left a net indebtedness of \$396,772.44, to be met by the uncollected taxes of 1898, and by

adding together the outstanding warrants on Dec. 1, 1898, and the total deficiencies, we have \$379,919.64; from which subtract the cash on hand, \$2.70, and we have the net indebtedness of the State, amounting to \$379,916.94, which is to be paid by the uncollected taxes of 1898.

Admitting that the taxes for 1898 would not exceed those of 1896, we have notwithstanding gained \$16,855.50 on the indebtedness of the State, besides maintaining several institutions during the past two years which were not in existence prior to 1897.

The inheritance tax yielded \$136.56 in 1897, and \$6,912.72 in 1898.

The tax on insurance companies and the licenses amounted to \$31,019.90 in 1897 and \$41,857.42 in 1898.

The total valuation of property in the State in 1898 was \$133,969,519, an increase of \$3,212,107 over that of the preceding year. The railroad valuation was \$13,793,581; personal property, \$51,627,517; real property, \$68,548,421. The figures for the whole State on some of the different classes of property taxed are as follow: Cattle (all classes), \$11,546,885; sheep, \$5,072,641; net proceeds of mines, \$6,531,251; goods, wares and merchandise, \$5,457,908; horses (all classes), \$3,177,274; mortgages, bonds, etc., \$2,712,722.

The interest paid by State and counties on floating debts is \$82,140.96; interest paid by counties, school districts, and cities on bonded debt, \$322,006.84; interest paid by cities on floating debt (estimated), \$42,000; total annual interest on public debt of State, \$446,149.80.

Education.—The school population is 49,478.

A special election held in Helena to ascertain the wishes of the voters upon the proposition of levying a special tax of 1½ mill for the purpose of maintaining the public schools the full school year resulted in the defeat of the proposition by 141 votes, out of a total of 1,396.

The receipts from sales of State lands were divided among the educational funds as follow: Permanent school fund, \$37,739.96; school income fund, \$52,585.22; permanent university fund, \$4,727.90; University Bond fund, \$8,804.55; State Capitol Building fund, \$3,088.72; School of Mines fund, \$2,147.48; Normal School fund, \$6,342.46; Agricultural College fund, \$3,044; Deaf and Dumb Asylum fund, \$2,403.90.

In accordance with an act of the last Legislature two buildings have been erected for the State University at Missoula, at a cost of \$80,000.

The buildings for the Normal School and the Agricultural College have been finished. The Normal School, which has been in operation about two years, has 80 pupils, and the Agricultural College about 200. The building for the School of Mines, at Butte, is ready for occupation, but funds have not been provided for starting and maintaining the school.

An investigation was held by the State Board of Education in July into charges against the State Superintendent, to the effect that he had hired a stenographer in his office at \$50 a month, and that he authorized her to collect \$125 a month from the State for her services, intending that she should retain \$50 thereof for herself and turn the balance over to him. Mr. Carleton admitted this, but alleged that he intended to use such monthly balance for furniture and expenses of his department of the State government. The board declared that the proceeding was illegal; on the question whether he intended to use the \$75 for himself or for the State, the vote was a tie.

Exercises were held at Anaconda, June 11, in connection with the formal presentation to the city of a library and building by Mrs. Phoebe Hearst.

The State law library, now at the courthouse of Lewis and Clarke County, comprises more than 12,000 books and pamphlets.

The Helena public library has, besides 500 periodicals and a large number of pamphlets, unbound, more than 21,300 bound volumes.

Charities and Corrections.—The Asylum for the Insane cost the State \$130,822.80 for the year ending Nov. 30, 1897, and \$117,656.15 the succeeding year. Of the patients received in 1898, 36 per cent. were discharged as cured, or 9.9 per cent. of the whole population of the asylum. The increase during the year was 45; the whole number, Nov. 30, was 457, of whom 99 were women. There were 28 deaths in the past year.

The blind, the deaf and dumb, and the feeble-minded are provided for in a single institution, for which a new building has been completed recently at Boulder.

The fifth annual report of the Orphans' Home shows that 145 have been admitted since the opening, of whom 35 were placed in homes, 34 were returned to relatives, 2 were discharged as able to support themselves, and 2 died. In the year 31 were admitted and 80 were present at its close. The summary of expenditures for the year shows that it cost \$16,129.75 to run the institution for the fiscal year, including \$3,135.47 spent on the school building. The total estimated value of the products of the farm during the year was \$1,503.

The Soldiers' Home, which has been opened within the biennial period just past, has about 50 inmates.

A new penitentiary building has been completed at Deer Lodge. The number of convicts is 369. The cost of their care during the year ending Nov. 30 was \$52,229.50.

The biennial report of the State Reform School, at Miles City, shows that the gross expenses for 1897 were \$20,118.79, and for 1898 \$19,541.27. The school has 78 inmates, 61 boys, and 12 girls. During 1897 19 boys and 5 girls were admitted, and in 1898 25 boys and 8 girls. During 1897 19 boys and 3 girls were discharged, and during the present year 12 boys and 4 girls were paroled. The aggregate cost of transporting prisoners from the different counties during the past two years has been \$13,992.10, and the number of prisoners taken to the Penitentiary was 264.

Military.—The quota of the State for the Spanish war was 524, but 1,366 men were furnished, a regiment of infantry and a squadron of cavalry. The infantry were sent to the Philippines, and had lost 7 men by the close of the year. The cavalry were not in service, but spent the summer at Chickamauga Park, and were mustered out in September. Their loss is given as 4 men. The militia of the State now consists of 1 battery. The number of men eligible for military service in the State is estimated at 27,494.

Banks.—The value of bank stocks, notes, and solvent credits in the State, as assessed for taxation in 1898, was \$3,085,016, and the cash assessment of the State was \$1,080,522.

The report of the 21 national banks in February showed that since the date of the last report, Dec. 15, total resources decreased from \$16,631,780 to \$14,818,911; loans and discounts decreased from \$7,737,549 to \$7,682,332; reserve decreased from \$4,896,030 to \$3,882,833, of which gold holdings increased from \$640,717 to \$738,932. The deposits decreased from \$11,119,459 to \$9,976,116, and the average reserve held decreased from 45.20 per cent. to 40.14 per cent.

Insurance.—The receipts for the insurance department were eight times the amount received in 1896, the last year under the old law. That year

the receipts amounted to but \$5,234.50, derived from the following sources: Agents' certificates, \$2,258; filing annual statements, \$2,525; licenses, \$450; other fees, 50 cents. In 1898 the companies paid \$41,857. The receipts were from the following sources: Licenses to collect premiums, \$30,573.72; fees for licenses of agents, \$6,810; paid for filing annual statements, \$2,370; new companies' charter fees, \$2,100. During the year the State Auditor issued 1,362 licenses to agents in Montana.

Railroads.—In the biennial period just passed the railroad assessment of the State was increased from \$10,438,231.08 to \$13,793,581.35. The roads have reduced their passenger rates to 4 cents a mile.

The Montana Central report shows that the road has a funded debt of \$9,300,000, and that its cost and equipment represents an outlay of \$14,310,950.53. Including all of the side tracks there are 308.26 miles in the system. The average fare per mile per passenger for the year was 4.274 cents, while the average amount received for hauling freight per ton per mile was 0.842 cents. The gross receipts from the passenger department were \$251,152.57. From the freight business the Montana Central realized \$1,810,224.53, and from the freight and express business \$36,753.83. The total gross earnings of the road were \$2,150,456.87, and the net earnings \$979,514.46. During the year the company expended \$176,620.61 in new equipment and \$312,487.91 in maintenance of right of way (repairs and improvements of roadbed). The total expenditures were \$2,172,787.91.

The Montana Union, with its 60 miles of track, carried 73,129 passengers, 262,209 tons of through freight, 30,813 tons of local freight, and 58,469 tons of ore, cattle, grain, etc. The expenses of the road were \$255,378.44, and the receipts from passengers, \$81,260.23; from freight, \$200,315.69; mail and express, \$8,351.92; from all other sources, \$112,494.29; total gross earnings, \$402,422.13; total net earnings, \$147,043.19.

In a suit brought by the Attorney-General to prevent the Butte, Anaconda and Pacific from leasing the Montana Railway, the Supreme Court decided that, while the State Constitution prohibits the consolidation of parallel lines, it does not forbid a lease of one to the other.

Mining.—From an article by Prof. F. D. Smith are taken the following details:

"Everything in the operation and development of the year 1898 in Montana points to a material increase in the production of at least three staple products of Montana mines—copper, gold, and silver. At the close of 1897 nearly all the mines in which silver is the major value were closed, and capital was seeking other lines of mining industry. No additional mines closed during the year, and some have again opened. Nearly all the silver produced was a by-product of either copper or lead, while much of the gold was likewise a by-product of the copper. Consequently activity in the copper mines means a large output of gold and silver. The copper industry of Montana centers in Butte and Anaconda, since the Butte mines produce the major part of the State's copper. A review of the year's work shows remarkable activity. With a total of 50,000 feet in shafts, it is plain that 8,500 feet for one year means much development. The Anaconda Company operates in all 11 mines, with 10 separate shafts and hoisting plants, employed 3,340 men about the mines, and sunk a total of 3,550 feet. All the ore was hauled by rail 27 miles to Anaconda, where it was smelted, the copper matte nearly all resmelted, and the copper thus produced electrolytically refined. A large number of claims and partially developed mines in the best copper district in Butte have been purchased, and smelters and re-

fining plants to cost over \$1,000,000 are in process of construction at Anaconda.

"The wonderful increase in coal mining has received but scant attention outside of the State, since even now not enough has been produced to satisfy the needs of the factories and houses and the smelters with coke. During 1897 there were mined 1,647,882 tons of coal, and during the fiscal year ended June 30, 1898, 69,500 tons of coke were manufactured. Even this was not enough for all uses, and large quantities from the Wyoming mines were imported."

The gold product of the State was given as \$5,209,000 in value.

The report of the State Mine Inspector says that 136 mines were inspected. There were 11,096 men employed, 48 fatal accidents, 29 non-fatal, while the percentage of accidents to the men employed was 0.69. There were fewer fatalities than for two previous years.

Live Stock.—The report of the Sheep Commission shows that on March 1, 1898, there were 3,146,868 sheep in the State. The report says: "The later and present market price of wool has been disappointing, though opening sales were at fair prices, showing an advance of 2½ cents to 3 cents over the previous year. The mutton market has shown the most marked improvement and firmness. The Northern Pacific Railroad Company, holding an immense land grant within our borders, has recently adopted a policy of disposing of its lands at reasonable prices and on favorable terms, instead of holding them for a rise. Many of our sheepmen have taken advantage of this."

The State veterinarian, Dr. Knowles, killed during the year 187 glandered horses, quarantined 863 exposed to glanders, quarantined 84,719 sheep, and treated by vaccination against blackleg 22,418 head of cattle.

Decisions.—In December the Supreme Court decided in effect that a solvent and prosperous corporation can not transfer its property in the State to another corporation without the consent of every stockholder.

Another decision affirmed the doctrine that there is no appeal for the State from a judgment sustaining a demurrer.

Bounty Claims.—The records show that in 1897 bounty claims were filed for the killing of 22,082 coyotes and 6,112 gray wolves; and during the first eleven months of 1898 20,797 coyotes and 5,356 wolves were reported. The amount of the bounties for 1897 was \$84,582, and for the eleven months of 1898 it was \$78,459.

Labor.—From the Commissioner of Labor it is learned that there are 105 unions in the State with an estimated membership of 11,066. About 16,000 men are employed in the occupations represented by these unions, showing that about 68 per cent. of the number employed are members. The membership of 11,066 reported consists, all but 73, of men. The estimated number of unemployed among tradesmen is 2,997.

Public Lands.—From figures of the Commissioner of the General Land Office it appears that during the fiscal year ending June 30, 1898, Northern Pacific Railroad lands within Montana were certified or patented to the extent of 518,404.04. Vacant public lands within the limits of Montana are estimated at 16,932,837 acres surveyed, 54,674,779 acres unsurveyed. The area of public surveys in Montana accepted during the year was 486,653. The apportionment for public surveys for the fiscal year 1898 was \$42,000.

The State Land Register's office has done a large business during the biennial term just past; 971 leases and permits covering 402,952 acres, yielding

an annual rental of \$78,662.83, have been issued, as against 527 leases and permits covering 175,558 acres, yielding \$27,469 annual rental, this being the total number issued for the six preceding years. The cash receipts of the office for the past two years show an increase of about 300 per cent. over any like period in the history of this department. The receipts for 1898 were: Land sales, \$12,954.69; timber sales, \$15,123.96; leases and permits, \$66,947.85; trespass, prepaid and back rentals, interest on deferred payments, \$31,807.21; total, \$126,833.71. Up to Nov. 30 a total of 404,779.07 acres of school land had been leased, from which the rental was \$45,372.16. Of this amount of land under lease, 245,452 acres were leased in 1898 and 159,547 in the previous six years.

Arid Lands.—Under an act of the last Legislature a commission consisting of J. K. Toole, C. O. Reed, Donald Bradford, A. H. Mitchell, and T. C. Marshall was appointed to provide for the reclamation of arid lands. They have had surveys made for three canals in the eastern part of the State, which will render arable about 75,000 acres; and contracts were let for the construction of two of them. The refusal of the Northern Pacific company, which owns alternate sections of the land on a large tract near Billings which the commission wished to irrigate by a large canal, to assume any part of the expense has hampered the operations in that direction.

The Capitol.—The fifth Legislative Assembly passed an act repealing the one passed by the fourth Legislative Assembly for the construction of a State Capitol building to cost \$1,000,000 and provided for one at a cost not to exceed \$300,000, and for the taking up and payment of the outstanding obligations of the former commission, amounting to \$40,000. A new commission was appointed, consisting of Elizur Beach, D. E. Folsom, J. M. Fox, A. D. Peck, and the Governor. Bonds were issued to the amount of \$350,000; no purchaser was found in 1897, but in 1898 they were all taken at par by Thomas Cruse, of Montana. Plans were drawn and the building contract was let for \$289,821. It is expected that the Capitol will be completed by May, 1900.

Political.—The only State officers to be elected this year were a Chief Justice and an Associate Justice of the Supreme Court and a clerk of the same court. A member of Congress was also to be chosen.

The Democrats, Populists, and Silver Republicans met in separate conventions at Anaconda, Sept. 21. The Governor, who has been a Populist since 1894, and was a delegate to the convention of that party, went over to the Democratic convention, where he declared his intention to re-enter the Democratic party.

The Democrats nominated a straight party ticket as follows: For Member of Congress, A. J. Campbell; Chief Justice, W. Y. Pemberton; Associate Justice, W. T. Pigott; Clerk, Henry G. Rickerts.

The Populists and Silver Republicans united on the following ticket: For Member of Congress, Charles S. Hartman, Republican; Chief Justice, Theodore M. Brantley; Associate Justice, Henry C. Smith, Republican; Clerk, Oliver Holmes, Populist. H. C. Smith declined the nomination, and J. M. Clements was afterward made the candidate, while T. S. Hogan was finally the candidate for Member of Congress.

The Republican convention met at Helena, Sept. 24, and named the following candidates: For Member of Congress, Thomas C. Marshall; Chief Justice, Theodore M. Brantley; Associate Justice, George H. Grubb; Clerk, Benjamin Webster.

At the election, Nov. 8, the Democrats carried all

the State offices, except that of Chief Justice. Following is the official report:

For Member of Congress—A. J. Campbell, Democrat, 23,351; Thomas C. Marshall, Republican, 14,829; Thomas S. Hogan, Silver Republican and Populist, 11,607.

Chief Justice—Theodore M. Brantley, Republican, Silver Republican, and Populist, 24,476; W. Y. Pemberton, Democrat, 24,319.

Associate Justice—Pigott, Democrat, 24,305; Grubb, Republican, 15,763; J. M. Clements, Populist, 5,850.

Clerk of the Supreme Court—Henry G. Rickerts, Democrat, 22,363; Benjamin Webster, Republican, 15,274; Oliver Holmes, Populist, 8,697.

The Legislature will stand: Senate—5 Republicans, 18 Democrats, 1 Populist; House—13 Republicans, 57 Democrats.

Two proposed constitutional amendments were adopted. One related to the term of office of county commissioners, and the other to the Supreme Court, providing that in case any justice is disqualified for any cause his colleagues may call in a district judge to assist in a case before the court.

MORAVIANS. The following is a summary of the statistics of the Northern Province of the Moravian Church in the United States for Dec. 31, 1897: Number of communicants, 11,661; of non-communicants, 1,281; of children, 4,794; total membership, 22,345; of members of Sunday schools, 15,466. The Southern Province returns 2,892 communicants, 228 non-communicants, 1,489 children, making a total of 4,609 members, with 4,061 in Sunday schools; giving for the whole American Province 14,553 communicants, 1,509 non-communicants, 6,283 children, and a total of 22,345, with 15,400 in Sunday schools. The numbers show increase of 333 communicants, 109 non-communicants, 21 children, 463 in the total, and 178 in Sunday schools. The contributions of the Northern Province for Church enterprises and general Christian objects were: For retired ministers, \$1,360; for the Bohemian mission, \$1,174; for foreign missions, \$4,746; for the Alaska mission, \$2,353; for home missions, \$7,219; for the Theological Seminary, \$2,972; for other Moravian causes, \$1,322; for general Christian objects, \$2,228; making a total of \$23,374, and showing a decrease from the previous year of \$4,204. The whole amount of contributions for church support was \$106,515, or \$7,619 less than in 1896. In regard to the decrease in contributions, attention is called to the facts that special efforts had been made in the previous year in behalf of several objects, and especially toward the payment of the foreign-mission debt and a new enterprise in Alberta; and several thousand dollars had been raised for the erection of new buildings and the liquidation of debts on church property; so that benevolences were diverted rather than diminished.

The provincial synod of the Northern American Province met at Lititz, Pa., Sept. 7. Bishop J. M. Levering was chosen president. The report of the Provincial Elders' Conference showed that there were now 83 ministers in active service in the province, or 5 more than at the time the previous synod was convened. Of these 74 were pastors of congregations and 9 were filling other offices. Twenty-two brethren and sisters were engaged in mission service in the United States under the superintendence of the provincial board. The membership of the churches had increased to a gratifying extent during the intersynodal period, being 11,661 on Jan. 1, 1898, against 10,160 on Jan. 1, 1893; while the total number connected with the Church had risen from 15,915 in 1893 to 17,736 in 1898, the Sunday schools had increased from 69 to 82, and the

enrollment in them from 9,715 to 11,229. Growth was also recorded in young people's societies of various names and representing different phases of Christian activity. Total contributions were returned for the five years covering the intersynodal period of \$534,784 for church support, \$130,946 for church enterprises, and \$6,866 for general Christian objects. A new English and German catechism, a Scandinavian hymn book, and a German hymn book for Sunday schools had been prepared. An important improvement in the financial conditions of the province was mentioned. The Permanent Church Extension fund had increased from \$31,315 at the time of the last synod to \$41,694. The condition of the several churches receiving aid was described in the report, including the Alberta, Canada, mission, which was established in 1894 to meet the spiritual needs of a colony of immigrants from Volhynia, and a mission in the Cherokee nation, which was begun as a foreign mission in 1735. The Moravian College and Theological Seminary had an endowment fund of \$115,634, and returned an average annual income during the past five years of \$9,427. Reports were likewise made of the Bethlehem Female Seminary and of Nazareth Hall. More than \$11,000 had been contributed during the past five years by the churches represented in the synod in aid of the Bohemian-Moravian churches. The present meeting of the synod being preparatory to the meeting of the General Synod, to be held in Germany in 1899, resolutions were adopted for presentation to that body recommending that the Unity's Elders' Conference, the Unity department, and the Mission Department as at present constituted be abolished; that an executive board of the Unity be elected to hold office in the interval between the sittings of the General Synod and to be called the Unity's Elders' Conference; that this body consist of five members—one to be chosen from the German Province, one from the British province, one from the American Province, and two from the missionary provinces; this body to be intrusted with the foreign-mission work in general, the Bohemian mission, the Leper Hospital, the administration of the funds of the Unity, the representation of the Unity in all negotiations with foreign governments and in public and legal functions, the oversight of the Unity, the convening of the General Synod and the carrying out of its enactments, the appointment of bishops during the intersynodal period, and the duties of the highest board of appeal for all provinces. Besides other suggestions respecting more particular details of the organization, the paper invited the General Synod to consider whether its next succeeding meeting could not more advantageously be held in London or in Bethlehem, Pa. The Rev. C. L. Moench and the Rev. E. A. Oester were elected and consecrated bishops, making the present number five, two of whom are, however, aged. Defining its position on the subject of marriage and divorce as that recorded in the Gospels as having been declared by Christ, the synod enjoined ministers under its control against officiating at the remarriage of divorced persons, knowing them to be such, unless they are assured that such persons, as the innocent parties, have secured divorce on grounds corresponding with the declarations referred to; and a request was made to the General Synod to embody in its results the position of the Church on the subject. The clause in the synod's interpretation of the rule on baptism making the refusal of members to have their children baptized "a virtual withdrawal from the Church" was stricken out. All the congregations throughout the province were advised to use unfermented wine at the celebration of the holy communion. In

view of the drift of population to the cities, the Board of Church Extension was advised to make populous centers prominent objects of its work. It was further advised to make efforts to increase the provincial Church Extension fund to \$50,000. The General Synod was petitioned to require the authorities of all educational institutions of the Unity to make an open acknowledgment of the fundamental doctrines of the Brethren's Church, as is already done in America. The delegates of the synod to the General Synod were instructed to recommend to that body certain measures concerning pensions to missionaries. A beginning of the collection of an Archive-Building fund having been made, the committee on the enterprise was continued, with directions to further the scheme.

The synod of the British Province adopted a proposition for the reorganization of the Unity which includes among its principal features the severance of the Mission Board from any and all organic connection with any provincial Elders' Conference, the abolition of the Unity's Elders' Conference as such, the abolition of the Department of the Unity, and the assignment of the convening of the General Synod to the Mission Board.

MOTOR CARRIAGES. Motor carriages are not a new creation. The first work of this kind of which we have any well-authenticated record was by a Frenchman, Cugnot, in 1770. He constructed an operative though crude steam carriage for heavy-draught service, and this identical machine is still preserved in the Conservatoire des Arts et Métiers, at Paris. These experiments, which were carried on under the auspices of the Government, do not appear to have been prosecuted with much energy, and a few years later the French Revolution effectually checked all progress in this new art. In England the subject was attacked with great ingenuity, skill, and energy, and for a long time the steam road carriage was regarded as offering a better solution of the question of rapid transit than the steam railway. An operative steam carriage was constructed in Halifax, England, by Robert Fourness in 1788, and Nathan Reed, of Massachusetts, constructed and operated a steam carriage in the same year. In 1803 Jean Richard Trevithick built and ran a steam carriage upon the highway in and about London.

From 1820 to 1840 was a very busy period with motor-carriage inventors. The most successful of these were Walter Hancock and Goldsworth Gurney. Hancock constructed 10 steam carriages during this period. They were mostly of the double-body coach type, and were the most efficient and practical of self-propelled vehicles of his time. Several of these were run regularly from London over certain routes, and remained in service some time.

Gurney built a series of carriages propelled by steam, and operated them regularly, carrying passengers between Gloucester and Cheltenham for four months. In 1834 the Steam Carriage Company of Scotland was formed, and it operated a line of steam coaches for the conveyance of passengers between Glasgow and Paisley, which plied hourly for several months with regularity. The distance is 7 miles, and the trip was made in thirty-four minutes, a speed of 17 miles an hour being obtained in the open country.

About 1834 a very strong prejudice was aroused in England against this new form of road locomotion. This was largely instigated by the railroad companies, rapidly growing in power, who foresaw in the steam carriage serious competition, and it found a ready welcome with the ignorant rustic class, always opposed to new inventions, and with the general public, which had been recently alarmed

by several serious motor-carriage accidents. The result was the passage of a parliamentary act imposing such onerous conditions upon the operation of road carriages as practically to prohibit their utilization. This was a serious setback to motor-carriage progress in England, and it remained without repeal or modification until 1896.

Continuous experiments up to the present time have been conducted with steam as a motive power, and have resulted in the development of practical types of heavy steam vans, trucks, omnibuses, and vehicles for heavy work and low speed, and these have been commonly used in France, and to a limited extent in England, since 1850. Although the principle of the gas engine was understood as early as 1794, when a patent on this form of motor was granted to Robert Street in England, and from this time engaged the attention of such men as Wright, Barnett, and Lenoir, not until the subsequent improvements by Dr. Otto, of Germany, in 1867, did steam have any competition as a motive power; but the ability to construct a practical and reliable explosion engine, and the feasibility of substituting hydrocarbon oils for gas and carrying a very condensed fuel, such as naphtha, seemed at once to solve the question of an automatic vehicle motor.

Among the first to appreciate this fact, and to set about constructing a practical vehicle, was Gottlieb Daimler, of the Otto Gas-Engine Works, in Kolu, Germany. Contemporaneous with Daimler, large numbers of experimenters appeared in France, England, and the United States, and at present (1899), while it can not be said that the gasoline carriage has reached the state of perfection necessary to warrant its general use, its future seems to promise a wide field.

The first public demonstration of what was being done was a contest of "automobile vehicles" held in Paris in the summer of 1894. This event marks an epoch in the history of trackless transportation. It was instituted by "Le Petit Journal" of Paris, and consisted of a trial of speed from Paris to Rouen and back. One hundred and two vehicles registered their intention to participate. Of these, 15 appeared at the start on the day of the race, 2 being steam vehicles and 13 propelled in various ways by the exploding of gasoline or naphtha. The winner was a vehicle propelled by a Daimler gasoline motor, which covered the 75 miles of the course in five hours and forty minutes.

In June, 1895, a race from Paris to Bordeaux and back was arranged. Twenty-eight vehicles appeared at the start. The contest was to be one of speed and endurance from Paris to Bordeaux and return, a distance of 705 miles. Twelve vehicles reached Bordeaux, and 9 made the complete trip. The time of the winner was forty-eight hours and forty-eight minutes, and again a vehicle propelled by a Daimler gasoline explosion motor finished ahead. Of the 9 vehicles completing the course but 1 was steam, and that was an excessively heavy and cumbersome affair. In these contests, vehicles propelled by electric storage batteries had appeared, but in every case had failed to make any important showing in a field which is now recognized not to have been theirs.

In November, 1895, in Chicago, the "Times-Herald" of that city inaugurated a contest for motorcycles, as they were termed. This was to consist of a trial of speed and practicability between Chicago and Milwaukee, 100 miles. On Nov. 2, the day set for the contest, but 2 vehicles were prepared to start, and it was postponed until Nov. 28. On this date 15 vehicles appeared. Of these, 7 were gasoline-propelled, 1 steam, and 7 electric. On the day of the start Chicago was covered with a deep fall of snow, and the route had been changed to Evanston

and return, 54 miles. At the final start only 6 vehicles were prepared to compete, 4 gasoline and 2 electric, and of these but 2 finished, both gasoline. The winner was an American motor vehicle, constructed by Charles Duryea, of Springfield, Mass. The other finisher was A. Mueller, in a German vehicle built by Benz, of Mannheim, Germany. Duryea's time for the 54 miles was ten hours and twenty-three minutes.

This contest, though of little intrinsic worth, was the beginning of the horseless-vehicle epoch in the United States, and was largely instrumental in attracting the attention of inventors and capitalists to this new art, which has since grown to enormous proportions, and is fairly started upon a career of economic usefulness. From this time, contests and races of all descriptions have followed one another with great frequency, the principal of which have been the "London Engineer" contest of 1896, to celebrate the modification of the odious English road laws, a race from Paris to Marseilles and return, a trial of heavy vehicles at Liverpool in the summer of 1898, and a contest of passenger-carrying cabs in Paris in 1898, upon the results of which was based the decision to transform the entire Paris cab service from horse-drawn vehicles to electric automobiles. London and New York have large and well-equipped electric-cab stations, and the utility of the electric carriage for this branch of service has passed all expectations and greatly stimulated the interest of producers of electricity.

General Construction.—The construction of motor vehicles has been very much aided and simplified by the results of the development of the bicycle with its improved tires, and especially is this the case with the lighter forms of road carriages, where it has been possible to combine speed, strength, and comfort through the use of ball bearings, bicycle construction, and pneumatic tires. Motor-carriage construction, of course, exhibits great differences of detail, besides variations necessary through the difference in the conditions of service imposed.

For vehicles of light construction, intended for high speeds, steel rims and tangential steel-wire spokes are employed in the better class, and the wheels are usually fitted with large pneumatic tires made with a very thick outer shell. For the heavier class of vehicles wooden wheels are found preferable, and for hard roads the solid-rubber tire is used by the majority of makers. Nearly all builders concur in the advisability of using ball bearings on the lighter vehicles. For the heavier variety, ball bearings, plain, and roller bearings are all used.

One feature employed by nearly all carriage builders is a balance or compensating gear. The driving gears then are not keyed to the same axle, but are connected through this compensating gear, whose construction is such as to admit of the wheels revolving at different rates of speed when turning corners, thereby avoiding the injurious slipping of the outer wheel which would result were the wheels rigidly connected. The same result is sometimes attained in electric carriages without mechanical means, but through the use of two independent driving motors, one attached to each wheel, electrically connected in such a way as to give the proper increment to the outer wheel in turning; or, again, through the use of a peculiarly constructed motor, the field of which, capable of rotation, is geared to one driving wheel through an internal gear, while the armature is geared through an external gear to the other driving wheel. This object is accomplished in a great variety of ways, but the purpose is exactly the same, in each case, as the device used on the tricycles of fifteen years ago.

Steering is sometimes done through the ordinary king-bolt method, but oftener, and with better results, by individually pivoting each front wheel at the end of the axle and causing them to turn through the proper angles by a system of links connected to the hand-steering lever. As can be readily seen, the latter leaves various opportunities for improving the faults of steering at high speeds which do not exist in the former.

Speed control is closely associated with the character of the motive power. In the case of the steam carriage, variations of speed are obtained by some form of link motion, exactly as is done with the ordinary locomotive. In the case of the gasoline engine, the speed can not be varied beyond certain comparatively narrow limits which have proved acceptable to the users, and it becomes necessary to use two or more separate trains of gears, and different speeds are obtained through the medium of a gear-shifting device which transmits the power of the engine through any of the gearing trains desired. The electric carriage lends itself most readily to the matter of speed control, and mere changes in the battery connections sufficient to alter the voltage applied at the motor is all that is needed to get speed gradations.

Brakes of all descriptions are employed upon motor carriages, and this is, as may be seen, a question of vital importance. Some form of band brake operated by a foot lever is the most usual and satisfactory, but tire brakes consisting of a broad shoe pressed against the periphery of the tire are in common use, especially on European carriages. The builders of electric vehicles often fit them with some form of electric brake, the usual principle of operation being the retardation or magnetic drag effected by running a motor as a dynamo through the momentum of the carriage. The employment of current generated in this way for recuperating the batteries is limited to hills of more than ordinary inclination, such as grades of 10 per cent. or more.

Speed.—The speed of an automobile can be made almost anything that the condition of the road and the intrepidity of the driver will permit. In France the maximum speed of automobiles is not limited by the character of the road surface, and for special purposes great speeds are obtained; but in current literature the speed of the French carriages has been greatly overstated, and this fact has even been carried into the reports of French societies interested in the art. Few French carriages have speeds exceeding 20 miles an hour, and in the autumn of 1898 the best obtainable evidence indicated that but 3 automobiles in France had a maximum speed on the level of more than 25 miles an hour. Of these 3 but 1 had a speed of more than 30 miles an hour, and this was one which was reported to have gone from Paris to Amsterdam at an average speed of 25 miles an hour, and was driven by Baron De Knyff, who with Charron and Bollée holds the front rank among the automobile drivers. Such speeds as these are out of the question over any but the very best roads. In cities this fact, combined with police regulations, places at 12 miles an hour the maximum speed to be provided by the builder.

Steam Carriages.—The application of steam to automobiles presents no novelty in principle, for exactly the same character of engine is required as on the ordinary locomotive, though of course lighter and less powerful. The real obstacle in the way of a successful steam vehicle lies in the care and attention necessary to bestow upon the boiler and its accessories. Simple as is the steam carriage in most particulars, its operation under the best conditions requires the full attention of a trained

mechanic. Up to the present steam transportation has been reasonably successful only where conditions of operation and current wages of operators have not prohibited the employment of two operators, or where the speed has been reduced to such an extremely low mark as to require the supervision of but one man. The most successful system of steam-carriage propulsion is probably that devised by M. Serpollet, a Frenchman. This has been applied with success to heavy omnibuses, vans, road-tractors, and trainways, but, by reason of the great weight of boiler required, is not applicable to the lighter class of road vehicles. His invention, in brief, consists of a peculiar form of boiler which he terms an instantaneous steam generator. It is a water-tube boiler, the tubes being made of steel pipes with very thick walls and flattened out so as to leave a small slit which is called the capillary space. These tubes are exposed to a very hot flame, and, containing as much highly heated metal as they do, are not cooled by the small amount of water passing through the interior slit, but instantly vaporize it, and the interior walls maintain their temperature by conduction of heat from the exterior. It is claimed that this boiler can be run for a long time without injury with no water whatever in the tubes, and in fact it is by regulating the amount of water fed to the boiler that Serpollet obtains his variations of speed. Since the boiler is without capacity—that is, all the steam generated immediately passes into the engine—the moment the water ceases flowing the engine stops. The greater number of steam carriages use some form of tubular boiler which is non-explosive, and apply the heat through a gasoline burner, this being the most convenient fuel obtainable. Among the steam vehicles in commercial use may be mentioned a line of goods vans, built by the Liquid Fuel Engineering Company of London, and operated between London and Birmingham.

Petroleum or Gasoline Carriages.—To this class belong all those vehicles employing engines or motors actuated by the explosion of hydrocarbon vapors. The Otto principle of explosion engine is used almost exclusively. It consists of a cylinder and piston, which act alternately as pump and motor—that is, there is one effective or working stroke only in two revolutions of the crank shaft. At the first forward stroke a mixture of air and gas is sucked in; on the return stroke this is compressed; on the second forward stroke this mixture is ignited by one of several ways, and an explosion results, driving the piston forward, and storing up the resulting surplus energy in a fly-wheel which is large enough to do the work required of the engine between the separate working strokes. On the second return stroke the exhaust or burnt gas is expelled. The application of explosive engines to carriages was never successful until the principle of the compressed charge was applied. Explosion engines used upon motor carriages almost universally employ the vapor of common gasoline to form the explosive mixture. This is obtainable anywhere, and is a cheap and condensed form of fuel. With few exceptions, the gasoline is vaporized and intimately mixed with air before entering the explosion chamber. The device for vaporizing the oil is known as the carburetor, and in its simplest form consists of a tank containing a certain amount of gasoline, through which air is drawn by the suction of the piston, becoming saturated in its passage with the vapor of the volatile oil. This vapor, however, must be mingled with a certain amount of air before a truly explosive mixture is reached, and this is accomplished through some form of regulating valve which permits the control of the richness of the

mixture. A form of aspirating carburetor, in which the gasoline is sucked up in a fine needle-like jet and sprayed in the midst of an intruding current of air, is the one in most common use.

The extremely high temperature accompanying the explosions, and the frequency with which these take place—several hundred a minute—results in greatly overheating the cylinder walls, and necessitates the use of some cooling device, usually a water-jacket, and a small pump to maintain the circulation of the water around the cylinder and through a coil of pipe exposed to the air, where it dissipates the heat acquired from the cylinder.

The ignition of the explosive mixture may be effected by an electric spark or by the hot-tube method. In the spark method an induction coil is employed to force a spark at the proper instant between two conducting points or electrodes in the explosion chamber, surrounded by the mixture of gas and air. This of course necessitates carrying a source of electrical energy, which is usually in the form of two small cells of dry battery. In the hot-tube method of ignition the chamber is fitted with a small platinum tube projecting outward therefrom and kept at a high temperature by a gasoline burner placed beneath. The vapor filling the chamber and the interior of the tube comes in contact with its heated sides, which, however, are not at a temperature high enough to ignite it under the conditions of pressure obtaining. As the piston returns the gas is compressed, and at the point of greatest compression—that is, at the end of the stroke—the temperature of the tube is sufficient to explode the mixture. This apparently crude device has been used with great success on many carriages. The French racing carriages are almost all provided with hot tubes. As will be seen from a consideration of the events taking place in the cylinder of a gas engine, this motor can not be self-starting like a steam engine, but some artificial means of previously compressing the gas before an explosion can take place must be used. This is ordinarily effected by turning the engine over once or twice through the medium of a hand wheel.

The advantages of the gasoline engine consist in the cheap, compact, common, and well-known character of the fuel. At a price of 10 cents per gallon for gasoline, a well-built carriage with two passengers should be run at an expense of less than half a cent a mile.

Electricity as a Motive Power.—The electric carriage makes use of electricity stored in the form of chemical energy in accumulators or storage batteries. A storage battery consists of a positive plate containing lead peroxide and a negative plate of porous lead immersed in an electrolyte of dilute sulphuric acid. This combination forms a type of battery which can be discharged in the same way as the ordinary primary cell, and acts on exactly the same principle; and when discharged, either fully or partially, the battery can be connected to a source of electrical energy, and the chemical compounds upon the plates, resulting from the passage of the discharge current, transformed into their original constituency by forcing an electric current between the plates in a reverse direction. If this reverse current is continued sufficiently long, all the active material of the battery

becomes reconverted to its original chemical form, and the battery is said to be charged, for it is now again able to yield current to the extent of its full capacity, and this process of charge and discharge may be carried on indefinitely. It is evident that, although electricity is put into the cell and later withdrawn, it is really a storage of chemical energy which is effected, which on discharge is manifested as electricity.

Although the principle of the lead storage battery has been well known since 1860, it is only since 1890 that its increasing fields of usefulness and extended application to the industrial arts has demanded due attention to improvements and refinements in its manufacture. Still more recently the peculiar conditions of road-vehicle service have demanded a form of lead storage battery which should possess, among other essentials, lightness and durability; but already storage batteries are available which conform sufficiently to the requirements to make the electric vehicle both serviceable and commercially practical. The immense superiority of control and the simplicity of the motive power in electric vehicles, have, in fact, a strong tendency to extend this field beyond its most advantageous limits, and to produce a willingness to accept relatively low standards of performance in storage batteries.

The relatively poor character of American roads has greatly retarded, and, up to the present time, almost prevented, the introduction of types of automobiles whose principal recommendation lies in unlimited radius of action, and it is not surprising that the world must still look to France as a leader in the production, if not also in the degree of development, of gasoline vehicles, while in England possibly the extreme conservatism may account for the fact that such development as has been made in that country in the new art has been along the lines of the steam carriage.

The character of most city streets in the United States has permitted the development of a demand for the electric vehicle, and as a consequence we find the old house of the Pope Manufacturing Company pre-eminent in this particular field. A special form of motor on these vehicles reduces all noise to a minimum. The controller handle, placed conveniently at the left of the operator, gives three speeds through the medium of a very simple controller. The steering handle, placed at the right of the driver, and a foot lever operating a powerful and quick-acting band brake, complete the apparatus necessary for a thorough control of the carriage. For the average person, but a few hours' trial is necessary to give skill and familiarity in all phases of the operation. A mileage of 30 is the normal amount for these vehicles, although much more than this often has been obtained. For a two-passenger carriage, at the prices ordinarily prevailing in American cities, the cost per mile is one cent, or slightly more. This type of carriage is rapidly coming into vogue. The advantages of the electric carriage are cleanliness, flexibility, ease and completeness of control, simplicity, freedom from noise, odor, and vibration, and, compared with the horse, economy of operation within the limits of reasonable deterioration. Its disadvantages are the weight of the battery and its limited mileage.

N

NATIONAL ACADEMY OF SCIENCES. The officers of the Academy in 1898 were: President, Wolcott Gibbs; Vice-President, Asaph Hall; Foreign Secretary, Alexander Agassiz; Home Secretary, Ira Remsen; Treasurer, Charles D. Walcott.

Two meetings were held in 1898. The first or stated meeting was held in Washington on April 19-21. On that occasion the following papers were read: "The Coral Reefs of Fiji," by Alexander Agassiz; "The Fiji Bololo," by Alexander Agassiz and W. McM. Woodworth; "The Acalephs of Fiji," by Alexander Agassiz and A. G. Mayer; "Ballistic Galvanometry with a Countertwisted Torsion System" and "A Curious Inversion in the Wave Mechanism of the Electro-magnetic Theory of Light," by Carl Barus; "The Variation in Virulence of the Colon Bacillus," by John S. Billings; "McCrary's Gymnophthalmata of Charleston Harbor," by William K. Brooks; "A Consideration of the Conditions governing Apparatus for Astronomical Photography," by Charles S. Hastings; "New Classification of Nautiloidea," by Alpheus Hyatt; "The Use of Graphic Methods in Questions of Disputed Authorship, with an Application to the Shakespeare-Bacon Controversy," by Thomas C. Mendenhall; "A New Spectroscope," by Albert A. Michelson; "On Double Halides containing Organic Bases," by Ira Remsen; "On the Hydrolysis of Acid Amides," by Ira Remsen and E. E. Reid; "The Question of the Existence of Active Oxygen," by Ira Remsen and W. A. Jones; "On the Product formed by the Action of Benzenesulphonchloride on Urea," by Ira Remsen and J. W. Lawson; and "A Method for Obtaining a Photographic Record of Absorption Spectra," by Arthur W. Wright.

The following papers were read by scientists not members of the Academy: "Theories of Latitude Variation," by H. Y. Benedict (presented by Asaph Hall); "Progress in the New Theory of the Moon's Motion," by E. W. Brown (introduced by Simon Newcomb); "On the Variation of Latitude and the Aberration Constant," by Charles L. Doolittle (introduced by Seth C. Chandler).

Also a biographical memoir on Edward Drinker Cope, by Theodore Gill, was read.

This year, for the first time, the Academy met in the library building. The only public business transacted by the Academy at this meeting, besides the reading of the papers mentioned previously, was the elections. The honor of associate membership, which is given only to foreigners, was conferred on the following: Prof. Henri Poincaré, whose name is known among mathematicians the world over; Prof. David Gill, the astronomer in charge of the observatory at Cape Town, Africa; Lord Rayleigh, the eminent English physicist; Lord Lister, the physiologist; Prof. Edward von Suess, the Vienna geologist; Prof. H. de Lacaze-Duthiers, the Parisian zoologist; Prof. Edward Strasburger, the German botanist; Prof. Felix Klein, of the University of Göttingen, Germany, famous for his researches in mathematics; Prof. Henri Moissan, the French chemist whose studies in high temperatures have resulted in the artificial production of gems; and Prof. Karl von Zittel, of Munich, Germany, who has a high reputation as a palæontologist. The election of the foreign associates was followed by the election of a treasurer for the Academy, Dr. John S. Billings having resigned on account of his removal from Washington. Dr. Charles D. Walcott, Director of the United States Geological Survey,

was elected in his place for a term of six years. The following members of the council were re-elected: John S. Billings, Henry P. Bowditch, George H. Brush, Arnold Hague, Othniel C. Marsh, and Simon Newcomb. The officers of the Academy are members of the council *ex officio*.

The scientific session was held in New Haven, Conn., Nov. 15-16, when the following papers were read: "On Solid Solutions of Colloidal Glass," by Carl Barus; "Anatomy of Nautilus Pompilius," by William K. Brooks and L. E. Griffin; "The Influence of Alcohol and Alcoholic Fluids on Digestion," by Russell H. Chittenden; "Sodium Tungstate as a Retainer for Boric Acid," by Frank A. Gooch and Louis Cleveland Jones; "The Ammonium-Magnesium Phosphate of Analysis," by Frank A. Gooch and Martha Austin; "On a Series of Native Skulls from New Guinea," "On the Reputed Prefrontal Bones in Recent Mammals," "On the Brecciated Fossil Marble from Kishiu, Japan," and "On Some Rare Antiquities from Mexico," by Othniel C. Marsh; "Observations on the Zeeman Effect with the Echelon Spectroscope," by Albert A. Michelson; "Three Phases of Vertebrate Development" and "Notes on Mammalian Embryology," by Charles S. Minot; "Further Researches on the Two Isomeric Chlorides of Orthosulphobenzoic Acid: A Study in Tautomerism," by Ira Remsen; "Report upon Work in Spectrum Analysis carried on by help of the Bache Fund," by Henry A. Rowland; "On the Nature and Origin of the Marine Fauna of Bermuda" and "On the Ability possessed by Certain Animals to Recover after Complete Freezing," by Addison E. Verrill.

The following papers were read by scientists not members of the Academy: "On the Conditions Modifying the Excretion of Kynuremic Acid," by Lafayette B. Mendel (by invitation); "The Chemical Composition of Tourmaline," by Samuel L. Penfield (by invitation); and "Perturbations of Minerva, with a Preliminary Determination of its Orbit," by W. S. Eichelberger (presented by Simon Newcomb).

During the year the Academy has lost by death the following members: James Hall and William Augustus Rogers, sketches of whom will be found in *OBITUARIES, AMERICAN*, in this volume.

NEBRASKA, a Western State, admitted to the Union March 1, 1867; area, 77,510 square miles. The population, according to each decennial census since admission, was 122,993 in 1870; 452,402 in 1880; and 1,058,910 in 1890. Capital, Lincoln.

Government.—The following were the State officers during the year: Governor, Silas A. Holcomb; Lieutenant Governor, James E. Harris; Secretary of State, W. F. Porter, Treasurer, J. B. Meserve; Auditor, J. F. Cornell; Attorney-General, C. J. Smyth; Superintendent of Education, W. R. Jackson; Land Commissioner, J. V. Wolfe; Adjutant General, P. H. Barry; Oil Inspector, J. H. Edmiston; Secretaries of the Board of Transportation, J. C. Dahlman, G. L. Laws, and J. W. Edgerton, all of the silver parties; Chief Justice of the Supreme Court, T. O. C. Harrison, Republican; Associate Justices, T. L. Norval, Republican, and J. J. Sullivan, fusion; Clerk, D. A. Campbell, Republican.

Finances.—The balance in the general fund Dec. 1, 1896, was \$589,370.39. The receipts for the following two years were \$1,975,434.54, making a total of \$2,564,804.93. The disbursements were

\$2,564,753.26, leaving a balance Nov. 30, 1898, of \$51.67.

The sinking fund, balance and receipts, amounted to \$535,727.55; by payment of bonds and interest and transfer to another account, \$521,504.51 was disbursed.

The permanent school fund, balance and receipts, amounted to \$1,187,634.47; disbursements to \$949,189.44. The total of the balance and receipts of the



WILLIAM A. POYNTER,
GOVERNOR OF NEBRASKA.

temporary school fund was \$1,706,555.90, and of disbursements \$1,441,066.65.

At the close of business Nov. 30, 1894, the State debt amounted to \$1,188,575.59. For the biennium ending Nov. 30, 1896, it was \$2,463,709.95. Nov. 30, 1898, the debts of the State amounted to \$1,724,951.36.

The delinquent State taxes have increased during the past two years from \$3,884,559.94 to \$3,483,073.73.

The assets of the State as given by the Auditor are: Cash in treasury, \$624,523.43; uncollected taxes, \$3,483,073.73; suspended account, \$665,240.74; permanent educational fund investments, \$3,580,030.21; total, \$8,352,867.11.

The assessed valuation of the State has been lowered since 1892 by more than \$27,000,000. It was \$167,810,764.79 in 1898. The general fund levy is limited to 5 mills.

Education.—The school population is 366,069. The amount of State money appropriated in December was \$300,816. The principal sources of the fund were: State tax, \$73,057.92; interest on State bonds, \$7,230.69; interest on county bonds, \$65,002.98; interest on school lands sold, \$100,233.65; interest on school lands leased, \$43,697.24.

A new building for the department of mechanic arts was dedicated at the State University, Oct. 28. More than 160 new students were entered during the opening days of the fall term.

The State Normal School had a larger enrollment at the beginning of the school year than it has ever had at the corresponding time in other years; 333 were registered in the normal department. A new dormitory was opened in September.

Charities and Corrections.—The Lincoln Hospital for the Insane had 351 patients at the beginning of the biennial term; 447 were admitted during the two years and 468 discharged. Of the number discharged 164 were transferred to Hastings and to various counties. The proportion of recoveries recorded is 21 per cent. The annual patient population is 360. The appropriation for the term was \$119,900. The annual cost for a patient was \$170.68. The asylum at Hastings is used for the chronic insane, those at Lincoln and Norfolk for patients not deemed incurable.

The Soldiers' Home, at Grand Island, had a membership of 274, Nov. 30, of whom 47 were absent, 41 of those present were women, 40 died during the previous two years, and 65 were discharged. The last Legislature appropriated for this home \$76,470, of which \$61,043 had been expended.

The School for the Deaf and Dumb, at Omaha, had 214 pupils during the biennial term. The

number admitted was 47, and the number graduated was 10. The capacity of the institution is 140 pupils. The average cost *per capita* for two years was \$366.83. The aggregate salaries of teachers and employees was \$29,600. The number of deaf and dumb children of school age reported from 29 counties who have never attended school is 42. The biennial estimate submitted aggregates \$135,000, which is \$80,000 more than was appropriated two years ago.

The superintendent of the Kearney Industrial School for Boys thinks 85 per cent. of the boys paroled and discharged have become honorable citizens and useful members of society. Since 1881, when the school was completed, 1,202 boys have been received and 1,051 boys have been paroled or taken out by legal process. The institution for the two years ending March 30, 1897, had \$105,000 at its disposal. In 1897 the Legislature appropriated \$81,650.

There were 290 prisoners in the Penitentiary, Nov. 30. The cooperage contractor now employs 110 prisoners. The broom contractors employ 95 prisoners. A shoe shop employing 7 prisoners has been established by the State. Shoes are manufactured for the Penitentiary and other State institutions.

The last Legislature appropriated \$60,000 as a maintenance fund for the Penitentiary, of which \$40,549 remains unexpended, \$19,324 having been left from the previous term. The warden collected \$44,474 for convict labor, deposited it with the State Treasurer, and drew out \$44,240, leaving only \$234 in the labor fund. He commends the convict parole law, and recommends purchase of more farm land.

Military.—The strength of the National Guard in April was given as 2,500 men. It is proposed to reorganize the Guard, since the State at the close of the year had only the Weymore Battery in its service. The First and Second Regiments and a troop of cavalry were called for by the Government, and after they left the service of the State honorable discharges were issued to officers and men, including those who failed to pass the physical examination required by the Government mustering officers. The Adjutant General proposes to have a guard of 2,000 in 3 regiments, and estimates that the State should appropriate \$82,000 for maintenance for two years, \$22,800 for rent of armories, and \$66,697 for clothing and equipments to take the place of those turned over to the Government for the war, the value of which will in time be returned to the State.

Banks.—The report made by the Comptroller of the Currency showing the condition of national banks in Nebraska at the close of business on July 14 in comparison with the statement made on May 5 showed an increase of over a million dollars in the totals. Loans and discounts aggregate \$12,459,768; lawful money reserve, \$1,202,245; deposits, \$13,683,307; and average reserve, 4.12 per cent.

The president and vice-president of the First National Bank of Neligh were arrested in December charged with violations of the Federal banking laws. The cashier, who was indicted with them, has disappeared. The bank failed in October.

The State was non-suited Dec. 24 in the case brought to recover \$201,000 from the Omaha National Bank and the Chemical National Bank of New York. The suit was to recover the money for embezzling for which ex-State Treasurer Bartley is serving time.

A final dividend was declared in June in favor of the creditors of the national bank of Beatrice, making in all 64.4 per cent., or \$123,856.

Loan Associations.—The number of these in 1897-'98 was 68; the membership, 11,821; and the assets, \$3,554,788—a decrease of \$217,045.

Railroads.—A case was brought before the courts to test the validity of the law passed by the Nebraska Legislature in 1893, prescribing maximum freight rates. The act applies specifically to freight whose transit begins and ends in the State, and there was no effort in its enactment to control interstate freight. It affected all the railroads in the State, and the railroad companies filed a bill in the Nebraska circuit courts, after the law was enacted, to secure an order restraining the State officials from putting the law into force. The law was attacked on the ground of its constitutionality. It was charged that inasmuch as the act applied only to State freights it was chargeable with a discrimination against them, and therefore antagonistic to the spirit of the fourteenth amendment to the Constitution. The companies contended that the maximum rate fixed was unreasonable and ruinous to the roads. It was also asserted that the act interfered with interstate commerce. The decision in the circuit court was delivered by Justice Brewer, of the Supreme Court, who held against the validity of the law. His opinion was based largely upon the charge of unreasonableness. He made a computation showing that the reduction amounted on an average to 29½ per cent., which he held was too great a change.

The opinion of the United States Supreme Court, handed down by Justice Harlan in March, upheld the decision of the circuit court. He added that if railroad business should so improve that the rates fixed by the act of 1893 would afford a reasonable compensation the State might then apply for a discharge of the injunction. The opinion declared that a corporation is a person within the meaning of that term as used in the fourteenth amendment.

In a decision rendered July 25 in the district court at Lincoln, the State Board of Transportation was deprived "of much of the power conferred upon it by the last Legislature. The Attorney-General and the members of the board, acting under the law giving them jurisdiction over telephone and express companies, proceeded to enforce reductions in rates, in violation of a restraining order. Judge Cornish purged them of contempt, but assessed costs against them, and issued strict orders to make no further efforts in this direction."

The assessed valuation of the roads for 1898 was \$26,108,936.80; the mileage, 5,542.47.

Insurance.—The report for 1897 shows that joint-stock fire insurance companies, not of the State, wrote \$87,915,160 in risks, received \$1,221,879 in premiums, paid losses \$395,999. State joint-stock companies wrote \$10,620,427 in risks, received \$158,465, and paid \$43,094. State mutual companies wrote \$2,554,763 in risks, received \$75,271, and paid \$3,051. City and village mutual companies paid losses \$7,555, and had in force \$3,374,931. Nebraska farmers' mutual companies wrote risks, \$16,244,083; paid \$58,051; and had in force \$48,282,413.

Life insurance companies had in force at the close of 1897 19,218 policies, amounting to \$37,642,379, paid losses \$387,857, and received \$1,149,079. Two companies reported industrial business, \$1,250,717 in force, and \$10,155 paid. Premium life associations of the State had paid \$6,614, and had in force \$1,313,500. Assessment life associations had paid \$158,789, and had in force \$20,433,157.

Industries and Products.—A comparative statement of the surplus products of the State for 1891 and 1897, made by the Deputy Labor Commissioner, S. J. Kent, shows that the product of corn increased from 24,295,500 bushels to 76,346,362; wheat, from 9,821,000 to 18,040,915; oats, from 11,928,000 to 14,494,697; rye, from 803,500 to 2,879,612; barley, from 438,000 to 499,067; the number of hogs from 1,431,540 to 1,953,752; of cattle, from

380,100 to 657,942; of sheep, from 195,680 to 1,007,980; of horses and mules, from 18,940 to 13,240.

At a meeting of the State Dairymen's Association in November the president said that Nebraska had made greater progress in dairying during the year than any other State. He favored the creation of the office of dairy commissioner, in order that laws protecting dairy interests may be enforced.

The business of the stock yards at West Lincoln shows a great advance in recent years. The increase in 1898 over 1897 is reported as 87 per cent. in sheep, 23 per cent. in hogs, 4 per cent. in cattle, and 172 per cent. in horses and mules. The actual number of animals handled was 6,145 horses and mules, 60,340 cattle, 74,411 hogs, and 202,897 sheep. The figures of the Lincoln Packing Company also show rapid development of business. In 1898 the company bought and converted into meat products 65,513 hogs, for which \$634,567.14 was paid, or an average of \$9.68½ per head.

The Trans-Mississippi Exposition.—This closed the last day of October, after having had a total attendance of 2,600,000. The stockholders receive dollar, for dollar, and it is estimated that from \$75,000 to \$100,000 will remain in the hands of the treasurer after all liabilities are paid.

The total amount of stock subscriptions collected and paid into the treasury on Oct. 28 was \$291,909.04; the total donations collected on that date was \$163,070.20; the total earnings of the corporation to that date was \$1,306,384.94; making a grand total of cash receipts from all sources of \$1,761,364.18.

Court Decisions.—The law providing for the appointment of a fire and police commission for metropolitan cities was declared unconstitutional and void in January. The applicants for a writ of mandamus contended that the law passed by the Legislature delegating to the Governor authority to name officers for the city of Omaha was at variance with the Constitution of the State and was a usurpation of the principle of the right of self-government. In passing upon the case, Judge Scott sustained this position and went even further. He holds that if the Legislature could pass a law delegating to the governor the power to appoint members of the fire and police commission it could also delegate authority to the State executive to name the mayor and other municipal officers.

A dispatch from Lincoln, Dec. 8, says: "The decision of the district court at Omaha in declaring the bondsmen of ex-Treasurer Joseph S. Bartley not liable for his shortage was reversed in an opinion rendered this evening by the Supreme Court. The decision is important and unexpected. The amount directly involved is \$201,000, which sum Bartley took from a State depository bank, and for which he was convicted of embezzlement and sentenced to the Penitentiary. Indirectly to-night's decision affects Bartley's whole shortage of nearly \$700,000, which it now seems probable his bondsmen must pay."

The State Supreme Court declared in September that the Mayor of Omaha was ineligible, because, by a technical irregularity in his accounts as district-court clerk, he was a defaulter at the time of his election.

An act of 1869, turning forfeitures, fines, etc., into the school fund was declared partly void, on the ground that unclaimed costs and witness fees are not public money and it is unconstitutional to deprive those for whose benefit they are paid of the title to them.

The act of 1897 creating municipal courts in metropolitan cities was declared by the State Supreme Court to be in violation of that section of the Constitution which provides that laws re-

lating to courts shall be general and of uniform operation.

The Attorney-General held that a woman who was elected town treasurer could not hold the office because not a qualified elector.

Political.—State officers and legislators and members of Congress were chosen at the November election. Candidates were nominated by the Republican, Prohibitionist, and Socialist-Labor parties; the Democrats, Populists, and Silver Republicans united, and the Liberty party made nominations for some of the State offices.

The convention of Prohibitionists was held June 10, at Lincoln. The resolutions were brief, reaffirming the national platform of the party and favoring woman suffrage and economy in State administration. Following are the nominations: For Governor, R. V. Muir; Lieutenant Governor, Rev. N. S. Lowrie; Secretary of State, Charles R. Lawson; Auditor, C. C. Crowell; Treasurer, Hiram Burch; Attorney-General, A. G. Wolfenbarger; Commissioner of Public Lands and Buildings, B. Blair; Superintendent of Public Instruction, Mrs. S. C. O. Upton.

On Aug. 2 the Democrats, Populists, and Silver Republicans held conventions at Lincoln and agreed upon a ticket.

The Democratic platform first greeted the soldiers and promised support to the President. Pride was expressed in Bryan and allegiance to Jefferson and Jackson. Restoration of the monetary system in operation before 1873 was demanded. Gold contracts were denounced. Free silver at 16 to 1 and full legal tender of all money were indorsed. Banks of issue and interest-bearing bonds were denounced, the recent issue being declared unnecessary. The tariff and the Dingley bill were denounced. Income tax and liberal pensions were favored. Deeds of congressmen and Senators were approved. Increase of Supreme Court judges was demanded, as also railroad commissioners elected by the people, and redistricting of the State.

The Populist platform declared for free silver, Government ownership of railroads, telegraphs, etc., and other well-known principles of the party. It favored a new maximum-rate law "granting the people all possible relief within the limits" of the decision of the Federal Court. It denounced usurpation of Federal courts in the issuance of writs of injunction by which constitutional rights of freedom of assemblage and speech are denied to citizens; declared money to pay expenses of the war could have been raised by judicious taxation instead of by issuing Government bonds; condemned Republicans for not taxing all monopolies to raise war revenue; demanded "more money and less misery for the people"; and favored a vigorous prosecution of the war with Spain. Also it favored better pay for private soldiers and repeal of a time-limit provision relating to applications for pensions, and said further:

"We demand the enactment of a law prohibiting the issuance of free railway passes, except to *bona fide* employees, to public officials and private citizens, or the acceptance of the same, and favor the furnishing by law of necessary traveling expenses to public officers when engaged in the transaction of public business.

"We demand a speedy determination of the litigation involving the validity of the stock-yards act, regulating charges for feed and yardage, to the end that it may be determined, if said act is ineffectual, what steps should be taken to reduce said yards to State ownership."

The nominations were: For Governor, William A. Poynter; Lieutenant Governor, E. A. Gilbert; Secretary of State, William F. Porter; Auditor of

Public Accounts, John F. Cornell; Treasurer, John B. Meserve; Superintendent of Public Instruction, William R. Jackson, Land Commissioner, Jacob V. Wolfe; Attorney-General, Constantine J. Smyth. All are Populists except E. A. Gilbert, Silver Republican, and C. J. Smyth, Democrat.

The convention of the Liberty party was held at Lincoln, Aug. 2. The platform called for direct legislation under the system of initiative and referendum; for the "imperative mandate" through which any official who proves incompetent or dishonest in the discharge of his official duties may be removed from office by a majority vote of his constituency; for the honest and effective enforcement of all laws so that the will of the people, as expressed in the statutes, shall not be nullified by indifference or opposition on the part of public servants; and for the honest and economical administration of the Government, to the end that the people be not burdened with unnecessary taxes.

The ticket follows: For Governor, R. A. Hawley; Lieutenant Governor, J. Phipps Roe; Secretary of State, J. M. Dilworth; Attorney-General, Frank G. Odell; Treasurer, A. Luth; Auditor, Theodore Johnson; Commissioner of Public Lands and Buildings, B. H. Kelley; Superintendent of Public Instruction, Mrs. E. E. Utter. The candidates for the offices of Governor and Lieutenant Governor did not run.

The Republicans met at Lincoln, Aug. 10, and adopted resolutions in line with the party principles, and on State issues said:

"We pledge, if restored to control of the State Government, an honest and economical administration of public affairs and the introduction of strict business methods into all State institutions.

"We pledge the abolition of all unnecessary or sinecure State offices.

"We pledge a comprehensive revision of the revenue laws of the State with a view to a more equitable distribution of the tax burdens.

"We pledge legislation for State control and regulation of public corporations in the interest of all the people.

"We pledge the necessary steps toward a revision of the State Constitution.

"We call attention to the sham reforms of the triple allied fusion parties who have secured victory at the polls under false pretenses and whose pledges are proved by experience to be unreliable and utterly worthless.

"We invite the co-operation and support of not only all who believe in Republican principles, but also of all who wish better government, to the end that Nebraska may be no longer discredited by being classed among the States in subjection to Populism."

The nominations were: For Governor, M. L. Hayward; Lieutenant Governor, George A. Murphy; Secretary of State, Cenek Duras; Auditor of Public Accounts, T. L. Matthews; Treasurer, Peter Mortensen; Superintendent of Public Instruction, John F. Saylor; Attorney-General, N. D. Jackson; Land Commissioner, A. F. Williams.

The Socialist-Labor party nominated H. S. Alej for Governor.

The official returns showed the following vote on Governor: Poynter, fusion, 95,703; Hayward, Republican, 92,982; Muir, Prohibitionist, 1,724; Alej, Socialist-Labor, 248. The highest vote for any candidate of the Liberty party was given to Theodore Johnson, candidate for the office of Auditor—166.

Republicans were elected to Congress in two districts, fusion candidates in the other four.

The Legislature will stand: Republicans in the Senate, 18; in the House, 55; Democrats in the

Senate, 6; in the House, 10; Populists in the Senate, 9; in the House, 35—giving the Republicans a majority of 13 on joint ballot.

NETHERLANDS, a monarchy in western Europe. The legislative authority is vested in the States General, consisting of a First Chamber of 50 members, elected by the Provincial Councils for nine years, and a Second Chamber of 100 members, elected for four years by the direct votes of all Dutch burghers who pay 10 guilders of direct taxes above the limit of partial exemption or are occupants of separate dwellings. The reigning sovereign is Queen Willemina, born Aug. 31, 1880, daughter of Willem III and Princess Emma of Waldeck and Pyrmont, who after the King's death on Nov. 23, 1890, acted as Queen Regent until her daughter reached her majority on Aug. 31, 1898. The young Queen took the oath of office on Sept. 6.

The Council of Ministers constituted on July 26 1897, was composed as follows: President of the Council and Minister of Foreign Affairs, Dr. W. H. de Beaufort; Minister of the Interior, Dr. H. Goeman Borgesius; Minister of Finance, Dr. N. G. Pierson; Minister of Justice, Dr. P. W. A. Cort van der Linden; Minister of the Colonies, J. T. Cremer; Minister of Marine, J. C. Jansen; Minister of War, K. Eland; Minister of Public Works and Commerce, C. Lely.

Area and Population.—The kingdom has an area of 12,648 square miles. The population was estimated on Dec. 31, 1897, at 5,004,204, comprising 2,477,118 males and 2,527,086 females. The number of marriages in 1897 was 36,796; of births, 168,816; of deaths, 91,230; excess of births, 77,586.

Finances.—The revenue in 1896 was 135,175,567 guilders from ordinary and 180,000 guilders from extraordinary sources; total, 135,355,567 guilders. The expenditures were 89,295,234 guilders for defense, 32,137,346 guilders for debt, 10,228,130 guilders for public works, and 51,829,158 guilders for general expenses; total, 133,448,868 guilders. The revised estimates for 1897 made the total revenue 133,924,965 guilders and the total expenditure 137,273,041 guilders. The budget estimate of revenue for 1898 was 134,432,350 guilders, of which 44,400,000 guilders came from excise, 20,385,000 guilders from indirect taxes, 12,309,000 guilders from the land tax, 8,976,000 guilders from the post office, 8,716,500 guilders from import duties, 8,700,000 guilders from personal tax, 7,000,000 guilders from the tax on capital, 4,620,000 guilders from the tax on incomes from trade and professions, 3,835,000 guilders from state railroads, 2,450,000 guilders from domains, 1,850,000 guilders from pilot dues, 1,403,000 guilders from the telegraphs, 659,000 guilders from the state lottery, 240,900 guilders from the tax on gold and silver, 130,000 guilders from shooting and fishing licenses, 5,980 guilders from mining dues, and 8,641,970 guilders from miscellaneous sources. The total expenditures for 1898 were estimated at 141,743,746 guilders, of which 32,491,093 guilders are for public debt, 24,055,195 guilders for public works, 23,452,348 guilders for finance, 22,333,006 guilders for the army, 15,533,996 guilders for the navy, 14,455,836 guilders for the interior, 5,643,437 guilders for justice, 1,388,716 guilders for the colonial office, 538,436 guilders for foreign affairs, 800,000 guilders for the civil list, 701,681 for the state bodies, and 50,000 guilders for contingent expenses.

The estimate of revenue for 1899 is 140,800,000 guilders, and of expenditure 152,600,000 guilders.

The national debt in 1897 amounted to 1,106,541,893 guilders, consisting of 626,008,900 guilders of 24-per-cent. funded debt, the 8-per-cent. loan of 1895 for 462,819,300 guilders, 3,018,693 guilders of debts of expropriated railroads, and 15,000,000 guilders of uncovered paper money. The interest for

1897 was 29,935,246 guilders, and the sinking-fund charge 2,708,500 guilders.

The Army.—The army has been recruited to the extent of two thirds by the levy of militia, of which the annual contingent was about 10,400, but the only thoroughly trained and disciplined troops were those obtained by voluntary enlistment for six or eight years. The peace footing in 1897 was 1,882 officers and 26,972 men, with 5,755 horses. The army in India is an independent organization, recruited by enlistment in Europe and the colonies. Its strength in 1897 was 40,346, comprising 16,066 Europeans, 55 Africans, and 22,938 native East Indians. The plan of reforming the Dutch home army by introducing universal obligatory personal military service has been long under discussion and was one of the chief projects of the present administration. The law was passed by the Second Chamber on June 1, with 72 votes to 20, and on July 1 by the First Chamber with 32 votes to 13.

The Navy.—The naval force, including the fleet kept in the East Indies, consists of 6 armored ram turret and barbette vessels, ranging from 3,400 to 5,200 tons; 19 smaller rams, monitors, and armored gunboats; the protected cruisers "Holland," "Zeeland," and "Friesland," of 3,900 tons, which carry two 15-centimetre and six 12-centimetre guns and can steam 20 knots with engines of 9,250-horse power; 6 other first-class and 4 second-class cruisers; 50 small gunboats; and 28 first-class, 3 second-class, and 6 third-class torpedo boats. Six new coast defense vessels are being added.

Commerce and Production.—The imports of wheat in 1896 were 134,439,000, and exports 98,161,000 guilders in value; the imports of rye were 77,343,000, and exports 35,430,000 guilders; the imports of wheat and rye flour were 48,779,000, and exports 8,271,000 guilders; the imports of barley were 26,092,000, and exports 18,520,000 guilders; the imports of oats were 28,971,000, and exports 24,060,000 guilders; the imports of flax were 1,178,000, and exports 16,298,000 guilders. In a total import trade of 1,635,000,000 guilders the imports of cereals and flour represent 315,624,000 guilders, and in the total export trade, amounting to 1,340,000,000 guilders, they stand for 184,422,000 guilders; the imports of iron and steel in all forms were 150,816,000, and exports 99,044,000 guilders; imports of drugs 203,899,000, and exports 187,021,000 guilders; imports of copper 68,044,000, and exports 65,867,000 guilders; imports of sugar 29,118,000, and exports 52,435,000 guilders; imports of coffee 40,872,000, and exports 24,434,000 guilders; imports of rice 39,527,000, and exports 15,412,000 guilders; imports of timber 38,397,000, and exports 21,086,000 guilders; imports of oil seeds 39,565,000, and exports 18,557,000 guilders; imports of butter 1,572,000, and margarine 18,240,000, exports of butter 17,170,000, and margarine 38,224,000 guilders; imports of hides and skins 22,931,000, and exports 21,472,000 guilders; imports of saltpetre 16,336,000, and exports 22,238,000 guilders; imports of colors 11,729,000, and exports 9,852,000 guilders; imports of indigo 9,649,000, and exports 6,911,000 guilders; imports of mineral oil 10,840,000, and exports 80,000 guilders; imports of cheese 76,000, and exports 11,731,000 guilders; imports of vegetables 1,627,000, and exports 27,106,000 guilders; imports of paper 5,026,000, and exports 27,732,000 guilders; imports of fats and grease 16,336,000, and exports 6,186,000 guilders; imports of tobacco 9,374,000, and exports 4,511,000 guilders; imports of tin 18,569,000, and exports 17,017,000 guilders; imports of zinc 10,954,000, and exports 10,700,000 guilders; imports of gold and silver 6,353,000, and exports 779,000 guilders.

The total value of imports in 1897 was 1,706,100,-

000 guilders, including 26,100,000 guilders of precious metals. The merchandise imports were valued at 1,680,000 guilders, of which 528,100,000 guilders represent alimentary articles, 587,300,000 guilders raw materials, 279,300,000 guilders manufactured goods, 285,300,000 guilders miscellaneous merchandise. The total value of merchandise exports was 1,478,200,000 guilders, of which 515,900,000 guilders represent alimentary products, 536,900,000 guilders raw materials, 276,400,000 guilders manufactured articles, and 149,000,000 guilders miscellaneous articles. Including 900,000,000 guilders of precious metals, the total exports were 1,479,100,000 guilders. The trade was distributed between different countries as follows:

COUNTRIES.	Imports.	Exports.
Great Britain	269,900,000	321,900,000
Germany	277,000,000	767,500,000
Belgium	186,400,000	165,700,000
France	19,600,000	35,300,000
Sweden and Norway	26,700,000	9,000,000
Russia	248,700,000	6,900,000
Roumania	31,200,000	800,000
Turkey	9,800,000	4,900,000
Italy	4,800,000	7,100,000
Spain	31,600,000	2,400,000
Dutch East Indies	217,000,000	60,800,000
British East Indies	36,600,000	3,400,000
Africa	5,400,000	11,600,000
United States	234,100,000	44,900,000
Brazil	16,000,000	.....
Peru and Bolivia	16,700,000	.....
Other countries	73,700,000	37,400,000
Total	1,706,100,000	1,479,100,000

Navigation.—There were entered at Dutch ports in the course of 1897 of sailing vessels 1,259, measuring 1,013,187 cubic metres, of which 549, of 262,309 cubic metres, were Dutch, and cleared 1,350, of 1,027,182 cubic metres, of which 654, of 288,615 cubic metres, were Dutch; of 9,976 steamers, of 23,080,359 cubic metres, that were entered, 2,446, of 5,692,616 cubic metres, were Dutch, and of 9,748 cleared, of 22,700,072 metres, 2,452, of 5,683,043 cubic metres, were Dutch. Of the sailing vessels entered, 1,053, of 976,479 cubic metres, and of the steamers, 9,546, of 22,410,043 cubic metres, were with cargoes; of the sailing vessels cleared, 939, of 398,525 cubic metres, and of the steamers, 6,145, of 11,522,475 cubic metres, carried cargoes.

The merchant navy on Jan. 1, 1898, comprised 441 sailing vessels, of 269,400 cubic metres, and 171 steamers, of 568,511 cubic metres; total, 612 vessels, of 837,911 cubic metres.

Communications.—The railroads in operation on Jan. 1, 1898, had a total length of 1,681 miles. The length of the State telegraph lines was 3,505 miles, with 12,736 miles of wire. The number of dispatches was 4,714,485, of which 2,554,791 were internal, 2,117,351 international, and 42,343 official. The receipts were 3,526,197 francs; ordinary expenditure, 4,512,705 francs; extraordinary expenditure, 1,441,572 francs. The post office in 1897 conveyed 64,159,000 internal and 24,449,000 foreign letters, 38,064,000 internal and 7,251 foreign postal cards, 122,282,000 internal and 15,944,000 foreign newspapers, books, and circulars, and 3,515,000 internal money orders and letters, remitting 332,658,000 francs, and 567,000 foreign ones, remitting 109,754,000 francs.

The States General.—The legislative session was opened by the young Queen on Sept. 20. The Chambers considered several measures of social importance, providing for the improvement of the dwellings of the laboring classes, the prevention of excessive hours of labor for adults in factories and workshops, and the correction of the abuse of alcohol. Other bills dealt with the construction of secondary railroads, the abolition of tolls, the reor-

ganization of the finances and government of the Dutch East Indies, and a modification of the government system of Surinam and Curaçao. The revision of the tariff duties was already nearly completed.

The Institute of International Law.—The Association of International Jurists, which has been in existence since 1873, at its annual meeting held at the Hague in August, 1898, manifested disappointment on account of the Spanish-American war, which was a setback to the chief object of the Institute—the promotion of international arbitration. It found consolation, nevertheless, in the adhesion of both belligerents, although not parties to the declaration of Paris, to the principle that neutral goods under the enemy's flag and the enemy's goods under a neutral flag are exempt from seizure. A report on conflicts of law respecting the rules of private international law approved the principle that the ordinary law of a country and not its rule of international law shall govern, that, for instance, when English law holds that the law of domicile, and the French, Italian, Dutch, and Belgian law that the law of nationality applies, as in the succession to personal property, if an Englishman dies a resident of one of these countries his property must be administered according to the English law of succession, not according to the English law saying that the law of domicile, which is that of the foreign country, shall prevail. Another question considered was the legal position of ships in foreign ports. As regards war ships it was held that a crime committed on board, whatever the nationality of the victim, must be judged by the courts of the nation to which the ship belongs, but that crimes committed on shore by officers or men of the ship fall within the jurisdiction of the local authorities, and, if the perpetrators escape to their ship, they must be delivered up for trial.

Colonies.—The area and population of the Dutch East and West Indies are given in the following table:

COLONIES.	Square miles.	Population.
Java and Madura	50,554	25,697,701
Sumatra:		
West Coast	31,649	1,353,315
East Coast	35,312	335,432
Benkulen	9,399	158,767
Lampoung	11,284	137,501
Palembang	53,497	692,317
Atcheen	20,471	531,705
Riau-Linga Archipelago	16,301	107,861
Banca	4,446	93,600
Billiton	1,963	41,558
Borneo:		
West Coast	55,825	370,775
South and east districts	156,912	809,603
Celebes:		
Celebes	49,390	1,448,722
Menado	22,090	549,124
Molucca Islands	43,864	399,208
Timor Archipelago	17,698	119,239
Bali and Lombok	4,065	1,044,757
New Guinea	151,789	200,000
Surinam	46,060	76,500
Curaçao	403	48,744
Total	782,362	33,125,244

The East Indian possessions outside of the colony of Java and Madura are designated as outposts. A legal and social distinction is made in Java between Europeans and persons assimilated to them, who are governed according to Dutch laws, and natives and persons assimilated to them, who are governed according to native customs. There were 62,061 Europeans and persons assimilated to them in 1895 of whom 34,645 were males and 27,146 females. Out of a total of 32,330 Dutch males 24,953, and out of 26,898 Dutch females 23,402 were born in the East Indies. Among the Europeans and persons assimi-

lated to them the number of marriages in 1895 was 493; of births, 1,886; of deaths, 1,410. The native converts to Christianity on Jan. 1, 1895, numbered 18,331 in Java and Madura, and 284,294 in the outposts. In the public elementary schools for Europeans and persons assimilated to them there were 14,010, and in private schools 2,898 pupils in 1895; in the Government schools for natives there were 36,763, and in private and missionary schools 20,753 pupils.

The Governor-General of Dutch India, who is assisted by a Council of 5 members, is Jonkheer C. H. A. van der Wyck, appointed July 15, 1893. The budget for 1898 makes the total revenue 135,204,203 guilders, of which 21,659,863 guilders were from sales of Government coffee in the Netherlands and 8,257,600 guilders from sales in India, 122,760 guilders from sales of cinchona and 6,777,446 guilders from sales of tin in the Netherlands, 216,000 guilders from the profits of the Billiton Company, 885,000 guilders from railroads in the Netherlands and 10,150,000 guilders from railroads in Java, 8,678,000 guilders from sales of salt, 17,248,000 guilders from sales of opium, 15,507,500 guilders from import, export, and excise duties, 19,589,700 guilders from land revenues, 34,214,700 guilders from all other sources in India, and 897,634 guilders from various sources in the Netherlands; total receipts in the Netherlands 21,558,703, and in India 113,645,500 guilders. About a third of the expenditure is for the army and another third for the general expenses of the administration in India and in the Netherlands. The expenditure in India for 1898 was estimated at 117,590,449, and expenditure in the Netherlands at 28,559,715 guilders, making the total 146,150,164 guilders, which is 10,945,961 guilders more than the estimated receipts. The deficits have averaged about this sum for four or five years past. On June 16, 1898, the Dutch Chambers authorized an East Indian loan of 55,000,000 guilders. For 1899 the expenditure is estimated at 146,000,000 guilders, exceeding the estimate of receipts by 13,334,000 guilders.

The Government is the owner of the land in Java and Madura, except the private estates, situated mostly in the western part of the island. Under the culture system the natives were compelled to work for the Government on the coffee, sugar, tea, indigo, pepper, and tobacco plantations, but now forced labor is exacted only for the production of coffee. Private landowners, as well as the Government, have the right to the gratuitous services of all laborers living on their land for one day or more out of every seven. The greater part of this forced labor is commuted on the Government domains since 1882 by the payment of a poll tax of 1 guilder per annum. Under the agrarian law of 1870 a considerable extent of wild land is added every year to the cultivated area under seventy-five year leases. In 1895 there were 772,376 acres thus leased to European companies and individuals, 30,080 acres to Chinamen, and 3,305 acres to natives. No land has been sold outright since 1816. The private estates of Europeans cover 2,069,738 acres, while 639,999 acres belong to Chinamen and 34,856 to other Asiatics. There were 6,490,737 acres under free cultivation by natives in 1895. The principal cultures, besides rice and coffee, are corn, arachis, sugar, tobacco, indigo, and cotton. Sugar has not been cultivated by the Government since 1891, but is grown on lands leased from the natives or the Government. The yield in 1896 was 501,122 tons. The produce of coffee in 1895 was 114,223,277 pounds, of which 48,333,858 pounds were grown by the Government, 13,564,994 pounds by natives, 48,559,186 pounds on leased lands, and 3,765,239 pounds on private lands. The crop of 1896 was 42,094 tons, and

that of 1897 was estimated at 55,140 tons. The production of cinchona in 1895 was 317,387 kilos on Government lands, 60,020 kilos on private lands, and 8,573,260 kilos on leased lands. There are 74 tea plantations, producing 4,349,000 kilos in 1895. The yield of indigo was 621,666 kilos. Of tobacco, 18,075,917 kilos were raised in Sumatra and 9,807,178 kilos in Java. The output of tin from the Government mines of Banca and the private mines of Riau and Billiton was 16,600 tons in 1896.

Although the operations of 1897 against the Acheenese rebels of Sumatra were on the whole successful, the powerful chief Tokoe Oemar, who was the leader of the war party, could not be caught, and in the spring of 1898 he was still at the head of a large force of well-armed and finely-disciplined men whose efficiency as guerrillas had been brought up to the highest standard by long years of warfare. These men had established their quarters among a friendly population in the mountainous and thickly wooded country of Pedir, which lies northeast of Acheen. Although many people in the colony were opposed to sending an expedition into the dense bush of this wild and trackless country, far from its base of supplies, the energetic governor-general determined to fit one out on an extensive scale. It entered the Pedir valley at the end of May, and captured Garoet, from which Tokoe Oemar withdrew after some resistance, disappearing according to his wont. On June 30 the Acheenese suddenly attacked the civil post at Edi, but were repelled and pursued, losing 110 killed. In a later action the Dutch drove them from their position at Edi Goet, killing 80, and then marched upon Perlak and into the district of Glieng, whence also the insurgents retired after losing 33 in battle. In all these engagements few were killed, but many wounded, on the Dutch side.

Surinam, or Dutch Guiana, is administered by a governor, W. Tonckens in 1898, assisted by a Privy Council and by the Colonial States, consisting of 13 members, 9 of them elective. The revenue in 1897 was 2,245,498 guilders, of which 2,020,739 guilders were raised by import, export, and excise duties, and personal, house, estate, and indirect taxes. There is a militia of 27 officers and 358 men, a civic guard of 68 officers and 1,463 men, and a European garrison of 20 officers and 380 men. The produce of sugar in 1896 was 10,390,747 kilos; of cacao, 3,088,894 kilos; of coffee, 99,413 kilos; of rum, 880,369 litres; of molasses, 1,259,024 litres; of bananas, 559,492 bunches. The production of gold in 1896 was 846,366 grammes. The total product for the twenty years from the beginning of mining was valued at 19,495,771 guilders. The total value of imports in 1896 was 5,335,180 guilders; of exports, 4,391,728 guilders. There were entered during that year 202 vessels, of 93,636 tons, and cleared 198 vessels, of 90,880 tons.

NEVADA, a far Western State, admitted to the Union Oct. 31, 1864; area, 110,700 square miles. The population, according to each decennial census since admission, was 42,491 in 1870; 62,266 in 1880; and 45,761 in 1890. Capital, Carson City.

Government.—The following were the State officers during the year: Governor, Reinhold Sadler; Lieutenant Governor, C. H. E. Hardin; Secretary of State, Eugene Howell; Treasurer, W. J. Westerfield; Comptroller, C. A. La Grave; Superintendent of Public Instruction, H. C. Cutting; Attorney-General, James R. Judge, all of the Silver party; Adjutant General, C. H. Galusha, Republican, who died July 21; Charles H. Peters was acting as Adjutant General; Chief Justice of the Supreme Court, C. H. Belknap; Associate Justices, M. S. Bonnifield, W. A. Massey; Clerk, Eugene Howell, all of the Silver party.

Finances.—The Treasurer's report, published in February, gives the following details: The cash on hand Jan. 1, 1897, was \$272,890.32, and the receipts during the year from all sources \$450,127.85, making the total \$723,017.87. These receipts include the cash received for sale of State school lands, for interest on deferred payments of State school lands, sale of State bonds, interest on bonds, receipts from penal and eleemosynary institutions, county payments to district judges' salaries, county settlements, and miscellaneous sources.

The disbursements for 1897 were \$465,635.25, which included salaries of State officers and employees, support of State Prison, Hospital for Mental Diseases, Orphans' Home, expenses of Legislature, indexing and printing Supreme Court reports, State Printing Office, support of public schools, buildings and other expenses at the State University, militia, etc.

The balance in the treasury Jan. 1, 1898, was \$257,382.42, of which \$133,780.02 was in the general fund and applicable to the payment of State expenses, \$22,634.94 in the State school fund, \$50,702.99 in the general school fund, and \$36,910.34 in the State and Territorial interests funds, both of which are applicable for school purposes.

The cost of the State government in 1898 was \$436,423.39.

The amount of taxable property in the State was \$19,996.99 more in 1898 than in 1897.

Education.—The school population in 1898 was 8,996. The largest number recorded in any year was 10,592, which was in 1880. The apportionment to the counties from the school fund in 1898 was \$119,539.45. The balance in the educational fund Dec. 31 was \$1,418,738.91. During the year \$203,339.93 was expended for education, of which \$162,321.65 was for salaries.

The number of students in the State University has risen from 75 in 1874-'75 to 366 in 1898, of whom 302 are residents of the State. The expenditures for salaries, administration, new buildings, and improvements during the past biennial term amounted to \$88,980.63. The endowment fund is \$128,600.

Penitentiary.—The number of convicts in the State Prison Jan. 1, 1897 was 70, and at the end of that year 75. At the end of 1898 there were but 60. They were maintained at a cost of 44 cents a day *per capita*, salaries of employees not included. The total cost for the biennial term, including repairs to buildings was \$59,500. Of this sum \$9,006.65 was charged to the Government for United States prisoners. The State board granted 14 pardons and the President 1 during the term, and 2 convicts died.

Military.—There were 6 companies in the National Guard, and but 4 were called for to form an infantry battalion for service in the war. By July 4 men to the number of 337 had been enlisted, of whom a small number, it seems, were of those already enrolled in the State militia.

Railroads.—The annual report of the Nevada, California and Oregon Railway for the year ending June 30, 1898, shows an earning by the company of \$84,738.05. Operating expenses, \$65,069.83; net profit, \$19,668.22. This is the little road that runs north from Reno toward Alturas; ground has been broken for an extension.

The Oregon Short Line is to be extended from Milford, Utah, through southern Nevada.

Mining.—Preparations have been made for raising the water by pumping from the flooded levels of the Comstock mines to the height of the Sutro Tunnel, which has been put into condition to carry it off. With the resumption of deep mining, the draining of old workings and development of new,

it is expected that the Comstock mines will at least regain their old prosperity. The expense of pumping by modern methods is estimated to be not more than one twelfth of what it was costing when pumping was suspended. This saving, or a large portion of it, will be accomplished through operating pumping and hoist plants by electricity, the power for generating which will be supplied by Truckee river. The pumps are to lift 12,000 gallons of water a minute, or 17,000,000 gallons every twenty-four hours. The maximum quantity pumped when all the old Comstock pumps were in operation was only 5,000,000 gallons in twenty-four hours. A statement in regard to the products of famous mines says that the Comstock lode, though worked only about thirty years, has yielded \$500,000,000.

The gold product of the State in 1898 is given by the director of the mint as \$2,959,731.

The copper mines, 12 miles south of Golconda, Humboldt County, are being rapidly developed. The smelting and roller-crushing plant has a daily capacity of 300 tons. The lowest workings are on the 250-foot level. The railroad from the mine to the reduction plant will be completed by Dec. 1, when arrangements for more extensive operations will begin.

The town has now six hotels and several business houses, and many neat cottage residences. The hot springs at Golconda are becoming noted, and a hotel has been erected there.

Near Lovelock, in the same county, are large deposits of iron.

It is published that infusorial earth is found in large quantity 8 miles from Carlin. The borax production of Humboldt and Churchill Counties this season is expected to exceed that of any former year.

The niter deposits of the State, although so far as discovered showing only limited quantities, are receiving attention from prospectors, as that product in its refined state is quoted at 7½ cents a pound.

The amount of sulphur mined in 1898 is given as about 1,236 short tons.

The English company operating the Cornhill County nickel mines, 45 miles south of Lovelock, has recently perfected a process of producing nickel salts directly from the ore. The salts is used extensively in nickel plating, and the process perfected by the company enables the placing of the product on the market at a price that shuts out competition. There are large resources of nickel ore in the mine.

Mob Law.—The lynching that took place at Genoa in December, 1897 (see "Annual Cyclopædia" for 1897, page 546), was made the subject of investigation in January. The reports show that the crime was accompanied with unusual cruelty and atrocity. Yet a petition upholding it and denouncing those who were trying to bring the lynchers to justice received many signatures, among which were the names of four of the grand jury. The justice therefore ordered a new jury to be drawn, and said they should not only endeavor to find out who the lynchers were, but also whether it was true that the sheriff made no attempt to protect his prisoner, and none to form a posse and arrest the murderers; and, further, whether the county commissioners did their duty in refusing to offer a reward for the apprehension of the lynchers. The foreman, in his report to the judge, Jan. 25, said: "We have thoroughly investigated the Uber lynching case. We have examined 70 witnesses, and discovered the names of those parties who did the lynching, and have uncovered sufficient evidence to insure a conviction in every case, but the jury refuses to find indictments, and I consider it useless any longer to trifle with them." He did not think it would be worth while to bring before them the cases of the sheriff and the commis-

sioners. Finally, Feb. 5, one indictment only was found, and that was against the sheriff. A local paper said: "In the meantime it is gratifying that the case when fully examined makes a much better showing for the people of Nevada than appears on the surface. An effort really in earnest on the part of the officers of the law was made to bring the lynchers to justice. The prosecuting attorney did his work with zeal, and seems to have submitted to the jury abundant evidence to prove the case of the State against the accused. A considerable number of the grand jury also were ready and willing to act. Justice failed simply because a number of thrifty citizens whose devotion to economy would have made them excellent supervisors were by a freak of fortune turned from that office and landed in the grand jury."

The Poll-Tax Law.—The Supreme Court declared, June 27, that the law making the right of suffrage dependent upon the payment of poll taxes for two years, which was passed in 1897, is void because the title of the bill is not descriptive of the matter.

Political.—State officers and Legislature and a member of Congress were chosen at the November election.

The Silver party held its convention at Reno, Sept. 8 and 9. A committee was appointed to confer with one from the Democratic convention, with a view to fusion; they offered the Democrats choice of nominees for the offices of Lieutenant Governor, Comptroller, Regent of the University for the short term, and Superintendent of Public Instruction. The offer was rejected, and there was no fusion.

The platform of the Silver party approved the platform of the National Silver party at St. Louis in 1896, and the financial plank of the National Democratic party at Chicago reaffirmed devotion to free and unlimited coinage of silver at the ratio of 16 to 1 by independent action of the United States; opposed the Republican policy of increasing the bonded debt, and the issuing of money by banking institutions; asserted faith in the loyalty, ability, and wise leadership of William J. Bryan, and predicted his nomination as standard bearer in 1900. It favored the holding of Cuba, Puerto Rico, and the Philippines until the American people have time to consider the best policy in regard to their final disposition, the construction of the Nicaragua Canal, and the foreclosure of the mortgage on the Central Pacific Railroad unless the principle and interest is paid within one year.

The re-election of Senator Stewart was advised, and Senator Jones and Congressman Newlands were commended.

The nominations were: For Governor, Reinhold Sadler; Lieutenant Governor, J. R. Judge; Secretary of State, Eugene Howell; Treasurer, D. M. Ryan; Comptroller, S. P. Davis; Superintendent of Public Instruction, H. C. Cutting; Attorney General, W. D. Jones; Superintendent of Printing, Andrew Maute; Justice of the Supreme Court, C. H. Belknap; Regent of the University (long term), W. E. F. Deal; Regent (short term), H. S. Starrett; Surveyor General, E. D. Kelly; Member of Congress, Francis G. Newlands.

The Democratic convention adopted a platform approving that of the national convention in 1896, commended Democratic members of Congress for their course in favoring the prosecution of the war, denounced the Dingley tariff bill as a measure passed exclusively for the benefit of monopolies and trusts, declared the Democratic to be the only silver party, favored the election of United States Senators by popular vote, demanded that the Government should keep possession of the Philippines, and advocated the policy of internal improvements

to develop resources of the State by impounding water for irrigation. Following is the ticket: For Governor, George Russell; Lieutenant Governor, C. W. Grimes; Justice of the Supreme Court, C. H. Belknap; Secretary of State, John Weber; Treasurer, W. G. Thompson; Comptroller, G. M. Humphreys; Surveyor General, T. K. Stewart; Superintendent of Instruction, E. E. Caine (afterward withdrew); State Printer, James Morris; Regent (long term), J. F. Triplett; Regent (short term), G. Haist.

In State convention at Reno, Sept. 9, the Populists nominated the following candidates: For Governor, J. B. McCullough; Lieutenant Governor, W. H. Coffee; Secretary of State, G. T. Leavitt; State Treasurer, John Rhodes; State Comptroller, Harry P. Beck; State Printer, Dr. H. H. Hogan; Surveyor General, A. C. Pratt; Board of Regents (long term), George Peckham; Member of Congress, Thomas Wren. No nominations were made for the offices of Justice of the Supreme Court, Superintendent of Instruction, Attorney-General, and Regent for the short term. Following is the financial plank in the platform:

"We reiterate with emphasis that the financial question is the paramount issue, and demand the free and unrestricted coinage of silver and gold at the American ratio of 16 to 1."

The Republicans met in convention at Reno, Sept. 15, and passed resolutions commending the national Administration and the conduct of the war; favoring the immediate construction of the Nicaragua Canal and the enlargement and strengthening of the navy and coast defenses and a standing army commensurate with the dignity of the nation; commending the annexation of the Hawaiian Islands, and declaring in favor of territorial expansion. They expressed faith in the Republican principles of bimetallism, protection, and reciprocity, and declared that, as the Republican party is pledged to bimetallism, the settlement of the financial question may safely be left to it.

The following nominations were made: For Governor, William McMillan; Lieutenant Governor, J. W. Ferguson; State Treasurer, F. J. Button; State Comptroller, George H. Turrittin; Attorney-General, M. A. Murphy; Surveyor General, Allen Bragg; State Superintendent of Schools, Orvis Ring; State Printer, Joseph Eckley; Regent (long term), R. K. Colcord; Regent (short term), W. O'Brien. No nominations were made for the offices of Member of Congress, Justice of the Supreme Court, and Secretary of State.

The official returns show the election of all the candidates of the Silver party except the nominee for Superintendent of Public Instruction, Orvis Ring, the Republican candidate defeating his opponent by 1,198. The vote for Governor stood: Sadler, Silver party, 3,570; McMillan, Republican, 3,548; Russell, Democrat, 2,060; McCullough, Populist, 833, giving a plurality of 22 to Sadler.

The Legislature, for which there are to be some contests, was reported as follows: Republicans in the Senate 4, in the House 10; Democrats, 1 in each house; Silver party, 9 in the Senate, 17 in the House; 1 Independent in the Senate and 3 in the House.

NEW BRUNSWICK, an eastern province of the Dominion of Canada; area, 28,100 square miles; population in 1891, 821,263. Capital, Fredericton.

Politics and Government.—After the death of the Hon. James Mitchell, Prime Minister of this province, late in 1897, a new ministry was formed by the Hon. Mr. Emmerson, as follows: Premier and Chief Commissioner of Public Works, H. R. Emmerson; Provincial Secretary, L. J. Tweedie; Surveyor General, A. T. Dunn; Attorney-General, A. S. White; Commissioner for Agriculture, C. H.

Labillois; Members of the Council, L. P. Farris and A. D. Richard.

The new Government, like the preceding Blair and Mitchell ministries, claimed to be a coalition of Liberals and Conservatives; but the former so predominated in its composition, and so controlled its policy, that a long-expected revolt among provincial Conservatives took place, partly as a consequence of gradually growing feeling, and partly through the intervention of the Hon. G. E. Foster, the local Conservative leader in federal politics. On July 27 Mr. Foster came to Moncton and addressed a large gathering, at which the following resolution was passed unanimously:

"That in the opinion of this convention it is desirable that at the approaching general local election for the province of New Brunswick we support candidates pledged to establish and maintain a provincial administration in sympathy with Conservative principles."

Messrs. Tweedie and Richard, however, still maintain their places as members of the Government. Meantime all kinds of preparations have been proceeded with for the elections of 1899. Mr. Emerson, on assuming office, was banqueted at St. John on Dec. 2, 1897, and strongly expressed his desire to keep federal issues out of provincial politics. This line of thought was continued in the speeches at a demonstration held at Gagetown on Sept. 13, 1898, in honor of the Hon. A. G. Blair, late Premier, now Dominion Minister of Railways. Practically it amounted to an appeal for Conservative support by Liberal leaders. The situation at the close of the year, therefore, is that of a strong Government being attacked all along the line by an active opposition, led by Dr. A. A. Stockton and supported by his Dominion leaders, as the Liberals are by theirs. The House of Assembly met on Feb. 10, 1898, and was opened by Lieut.-Gov. A. R. McClellan with a speech from the throne, in which he said:

"It is gratifying to know that never in the history of the province has its financial credit stood so high as at present. The general prosperity and contentment of our people here and throughout the Dominion, the many eminent blessings richly showered in the past upon the land in whose interests we are assembled, and the many encouraging grounds for trust in the future, are all sources of congratulation, and merit our devout thankfulness to the Sovereign Ruler of our destinies.

"The official visit of his Excellency the Governor General and the Countess of Aberdeen to sections of our province during the year elicited cordial greetings from our people, testifying to the high esteem in which their Excellencies are held, as well for the interest shown by them in the welfare and advancement of the people as for their exalted position.

"The many economic, social, and other advantages arising from well-directed additions by immigration to our productive agricultural population have led my Government to give attention to the subject, and your consideration will be invited to a plan whereby it is hoped that we may not only be enabled to infuse some new elements into our too sparse population, but also further to encourage our own sons to remain at home in pursuit of agriculture, thus occupying and settling valuable vacant lands of the province.

"Agriculture, as an essential basis of all arts, will, I feel confident, claim your first consideration. The stock importation made during the recess, in accordance with the recommendation of the Farmers' and Dairymen's Association, met with popular approval, as evidenced by the interest manifested in the sale and the satisfactory prices realized. The special efforts made under the direction

of the Department of Agriculture in the holding throughout the province of farmers' meetings to disseminate knowledge pertaining to agriculture have contributed largely, I believe, to advance and energize this great industry. Past efforts have resulted in a large increase in the dairy products of the country, and I am led to hope that like efforts will result in stimulating and encouraging the farmers of New Brunswick to produce their own wheat supply, as of other cereals, thereby saving to their pockets the large annual drain therefrom now necessary in furnishing bread for their own tables.

"My Government strongly entertain the opinion that butter of the best quality can be profitably manufactured within the province during the winter season, through the agency of dairies supplied by auxiliary skimming stations located at suitable points and, with the view of demonstrating the possibility of conducting this enterprise successfully, have established one such winter dairy at Sussex. As there can be no doubt that great benefits will accrue to the province should this experiment prove that the enterprise can be made generally successful, you will be glad to hear that the results thus far have been eminently satisfactory. In furtherance of the interests of dairying, the Government have established and are now conducting a dairy school at Sussex, where all interested can obtain, free of cost, instruction in the most approved methods for butter and cheese making.

"The active and continued interest of a large portion of the progressive business element of St. John in a provincial exhibition has been brought to the notice of my Government, and should the plans matured by the association in charge involve particular and substantial recognition of agricultural exhibits, without lessening the usual display of the products of other industrial arts, a bill authorizing financial assistance on the part of the province will be submitted for your approval.

"Public attention abroad has been more and more arrested by the advantages of New Brunswick as an inviting spot for sportsmen and tourists. With a view of increasing the travel in this direction, so productive of profit to our people, my Government have thought it advisable to encourage an exhibit at the Sportsmen's Exhibition, to be held in Boston in March next, representative of the chief characteristics of our province in this regard.

"The commercial character of our country, notwithstanding all past discouragements, has begun to display itself in the successful establishment of lines of steamers sailing regularly from the commercial metropolis of our province during the winter months, whereby we are placed in relation to commerce in a position of advantage.

"A claim of long standing against the Dominion Government on account of eastern extension has been pressed during the recess by a delegation of my Government, and I have reason to conclude that a reply will be promptly given in the early days of this session."

The Hon. J. P. Burchill acted as Speaker, and the address in reply to the speech was passed after considerable discussion.

The House adjourned on March 18, after the following, among many minor bills, had been given the royal assent by the Lieutenant Governor:

To amend chap. xlv of the Consolidated Statutes. "Witnesses and Evidence."

To amend an act entitled "An Act to incorporate the Exhibition Association of the City and County of St. John."

To amend an act to incorporate the New Brunswick Masonic Hall Company.

In aid of the settlement of Crown lands in the province.

For the further encouragement of agriculture.
To grant aid toward holding a provincial exhibition.

To encourage visits of tourists and sportsmen to the province.

In further amendment of chap. lxxv of the Consolidated Statutes, of "Schools."

To incorporate the Provincial Coal Company.

To amend the game law.

To authorize the city of Fredericton to issue debentures for certain purposes.

To amend the law respecting the administration of trusts and the liability of trustees.

To consolidate and amend the public-health act and amendments thereof.

To incorporate the Primitive Baptist denomination of New Brunswick.

To amend the law relating to rates and taxes throughout the province.

Finances.—On Oct. 31, 1897, the debt of the province was \$3,053,957, chiefly in provincial debentures at 4 per cent. interest. About \$600,000, however, is at 6 per cent. The assets were Crown lands numbering 7,000,000 acres, and public buildings valued at \$400,000.

The revenue for the fiscal year 1897 was \$953,590, of which the main items were as follows: Dominion subsidies, \$483,550; territorial revenues, \$180,126; taxes on incorporated companies, \$22,747; liquor licenses, \$20,267; proceeds of sale of debentures, \$117,000.

The expenditures were chiefly as follows: Administration of justice, \$17,617.16; agriculture, \$19,386.84; contingencies, \$15,038.63; education, \$208,027; executive Government, \$31,278.08; interest (not chargeable to special funds), \$121,783.11; Legislature, \$20,953.20; Lunatic Asylum, \$41,863; public works, \$195,800; permanent bridges, \$100,000; redemption debentures, \$37,000.

Agriculture.—In this year a department of the Government devoted to agriculture was established. Pasture during the season was good; the production of oats was not sufficient for home consumption; the barley crop was small; buckwheat and peas, so far as grown, were clearly profitable; potatoes were a failure, and turnips were below the average; beets, mangels, and carrots were a valuable yield where grown. Fruit-growing showed a slow but steady growth. Cold-storage warehouses were established in the chief cities and towns of the province, and agricultural education was largely promoted. The dairy exhibit at the annual St. John Exhibition (Sept. 14, 1896) was most successful. There were 7 butter factories in working order in 1897, or 2 fewer than in the previous year. There were 49 cheese factories, producing \$99,655 worth of cheese. The total export of dairy produce was valued at \$37,839.

Education.—At the University of New Brunswick there were 68 students in attendance in December, 1897. The total number of schools at the close of 1897—grammar, superior, and common—was 1,737, and the provincial grant was \$161,445, of which \$155,078 went to the common schools. The following are the official statistics of the common or public schools for the year ending June 30, 1897: Schools, 1,737; pupils in attendance at schools, 61,908; new pupils in attendance this term at schools in operation both terms, 7,479; new pupils in attendance this term at schools not in operation the previous term, 2,089; total number of different pupils in attendance at schools within the year, 66,917.

Miscellaneous.—One of the most important public bodies in the province is the St. John Board of Trade. During the year it took an active part in public matters, and its report, published on Dec. 10,

1898, shows influence strongly exerted in behalf of St. John as a winter port for Dominion lines of steamers, for the proper stamping of weights and dates on parcels for export, for the encouragement of trade with the Bahamas, for an imperial subsidy to a dry dock in the port of St. John, for the local establishment of various industries, for the improvement of harbor facilities at Montreal, for further lighthouses and lifeboat stations, and for the protection of provincial interests at the Quebec International Conference. In November, 1898, a great storm occurred, which did much damage along the coasts. Late in September Sir John C. Allen, for many years Chief Justice of the province, died.

NEWFOUNDLAND, a North American British colony; area, 42,200 square miles; population, 210,000. Capital, St. John's.

Sir Herbert Murray's term of office as Governor expired last year. His successor is Lieut.-Col. Sir Henry E. McCallum, R. E., K. C. M. G.

Finances.—The funded debt of the colony is \$16,485,760, the greater part of which was incurred in railway construction and other public works. The imports for 1896-'97 were, in value, \$5,938,336; the exports, \$4,925,789. The revenue for 1896-'97 amounted to \$1,610,788. The public accounts for 1898 will not be published for some time. The total amount of the grant for education is \$154,438. The relief of the poor, including lunatics, paupers, and sick, cost in 1896-'97 \$178,441. The interest on the public debt, funded and floating, is \$606,017.

The New Railway.—The legislative session of 1898 will be memorable for the number and importance of the acts passed which will have far-reaching results on the fortunes of the colony. The most important of these acts is that which provides for the maintenance and operation of the Newfoundland railway. The transinsular portion of this line, completed from St. John's to Port-a-Basque (550 miles), was opened in July. The object of this railway is to open up the interior for settlement and industrial enterprises, and at the same time to provide a means of rapid communication between the island and the continent. It runs through the most fertile lands, and supplies facilities for working the mineral deposits and coal beds, and for turning the valuable forests to profitable account. Its completion marks an era in the history of the colony. Hitherto the people were mainly dependent on the fisheries; now farming, mining, lumbering, and pulp making will employ increasingly large numbers of the population. A swift steamer, the "Bruce," plies between Port-a-Basque and Sydney, Cape Breton, making the passage in six hours. Under favorable conditions it is possible to reach Montreal from St. John's in sixty-four hours and Boston in seventy-three hours. The railway is admirably built, and the cars are equal in equipment to those on the Canadian Pacific Railway. Last year showed a large increase in the number of tourists, travelers, and sportsmen visiting the island, while the freight and passenger traffic is developing at a satisfactory rate.

It must be remembered, however, that the greater portion of this railway runs through an almost uninhabited country, so that a long time may elapse before such a line will pay its working expenses. The annual loss of operating it will probably exceed \$200,000. The line was built by the Government and paid for by colonial bonds bearing interest at 8½ per cent.

Robert G. Reid, contractor, of Montreal, who had built the greater part of the railway, made an offer for its operation which proved to be so acceptable that the Legislature closed with it by an overwhelming majority, and their action was approved by the constituencies. In the act which authorized

the acceptance of the contract it was provided that the whole railway system of the colony should be leased to Mr. Reid for fifty years on condition that he should maintain and operate the lines and pay to the Government \$1,000,000 within a year. At the end of that period, the railways were to become his sole property. In payment for operating and maintaining the lines Mr. Reid agreed to accept 2,500 acres of land for each mile of railway operated. By the original contract he became entitled to 5,000 acres for each mile of railway, so that in all he received 7,500 acres per mile. These lands were to be selected along the line in alternate blocks, the Government retaining the same quantity as that given to Mr. Reid, in equal blocks. Thus Mr. Reid became a landed proprietor to the extent of about 4,000,000 acres.

The advantages of such a contract to the colony are very great. It was at once relieved of an annual expenditure of \$250,000 for operating, and received in hand \$1,000,000, which, if placed at compound interest, would in fifty years become \$7,000,000. The total cost of the railway was about \$14,000,000. The lands given to Mr. Reid are in a wilderness, and are of no value to the colony. Mr. Reid can only render them valuable by settlement and by working the forests and mines, thus giving employment to large numbers and indirectly increasing the revenue and adding to the population. The railway never could become a source of revenue, its object being to open up the country. So popular was the contract that 28 members of the House of Assembly out of a total of 36 voted for it, and the Upper Chamber was unanimous in its favor.

Mr. Reid's contract with the Government is not confined to the operation of the railway. He agrees to take over and operate the Government telegraph system, the Government paying \$10,000 per annum till 1904, when the Anglo-American Telegraph's monopoly terminates. Then the contractor will operate the lines free of subsidy. By this arrangement the Government will save \$10,000 per annum for the next six years. Further, the contractor agrees to provide 8 steamers for an improved mail service, of which one will connect Port-au-Basque with Sydney; another will ply between St. John's and Labrador; and the remaining 6 will ply on the large bays, and will connect with the railway at various points. The steamer "Bruce" alone cost \$250,000, the cost of the other 7 will be more than \$750,000, while at the same time the mail subsidies will be reduced. The contract is for thirty years.

Another part of the contract is the purchase of the dry dock in St. John's, from the Government, for \$350,000, the contractor to operate it and keep it in repair. Here again the colony effects a great saving, as the dock showed an annual deficit of more than \$6,000; while at the same time Mr. Reid will provide a superior staff of workmen, so as to be able to effect permanent repairs on the largest ocean steamers.

Other sections of this gigantic contract provide for the construction of a branch railway and the working of certain coal areas; also for the construction of an electric railway through the city of St. John's.

Legislation.—The other acts of the session were mainly devoted to the improvement and enlargement of the civil service. A Department of Marine and Fisheries, a Department of Justice, one of Finance and Customs, one of Agriculture and Mines, and a Department of Public Works were all instituted by separate acts; and amendments were made in the acts relating to slander and perjury, to the education and elections acts, and to the constitution of the Supreme Court. Altogether, the session was most prolific, and effected great and im-

portant changes. A stringent law regulating the seal fishery was passed, which enacts that no steamer shall leave for the seal fishery till 8 o'clock of the 10th of March; that no seals shall be killed till the 12th of March, or after the 1st of May, under a penalty of \$4,000. No second trips are allowed, except in case of accident. No more than 8 men for every 7 tons gross register shall be allowed to any steamer. A bounty was allowed to sailing vessels engaged in the seal fishery.

Fisheries.—In 1898 the bank fishery employed 66 vessels having a tonnage of 3,684 tons; the average catch per schooner was 890 quintals; the number of men employed was 872; and the codfish caught, 53,762 quintals.

The seal fishery of 1898 was fairly successful. Nineteen steamers having a tonnage of 5,720 tons, and crews numbering 4,838 men, engaged in the fishery. The number of seals taken was 243,014; the average value per seal \$2.50.

The export of dried codfish (1897-'98) was 1,145,540 quintals—value, \$3,230,928. The export of herring (pickled and frozen) was 62,155 barrels—value, \$102,447. The export of lobsters (preserved) was 2,973,648 pounds—value, \$619,510. The value of common cod oil exported in 1897-'98 was \$185,704; of refined cod-liver oil, \$14,480. The value of seal oil exported was \$218,279; of sealskins, \$129,840. The total value of the fishery products was \$4,571,808. The value of pickled salmon exported was \$61,812.

Mining.—The year 1898 witnessed a wonderful development of mining, proving that the island is destined to become one of the great mining regions of the world. Iron ore has been discovered recently in immense masses and of the best quality. The iron mine at Belle Isle, Conception Bay, exported 100,000 tons in 1898. It has been purchased lately by a syndicate for \$1,000,000. A later and more important discovery has been made in the Bay-de-Verd district of a vein of iron ore 16 miles long, estimated by experts to contain 50,000,000 tons. The ore averages 65 per cent. of pure iron—equal to the Lake Superior iron ore. An English syndicate has leased the property and is now working it. At Ochre Pit Cove another iron mine has been discovered still more recently which is said to equal the former. Many other iron deposits are reported, all going to show that Newfoundland is likely to become a great iron-producing country.

Several new copper deposits have been reported lately. Owing to the increased demand for copper for electrical purposes, the price has advanced 30 to 40 per cent.

Coal mining at Grand Lake is making good progress under Mr. Reid's contract.

The value of copper exports in 1898 was \$401,332; of iron pyrites, \$78,620. Asbestos and mica are among the other minerals which are likely to prove valuable. The attention of English and American mining capitalists has been drawn lately to the mining capabilities of the island, and mining experts were sent from England to conduct prospecting operations.

Paper Pulp.—Another new industry has been introduced, and gives promise of rapid extension—namely, the manufacture of pulp for paper making. The materials for such an industry are inexhaustible, and the quality of the wood is reported to be of the best. One pulp factory has been in operation at Black River, Placentia Bay, for two years, with great success. Mr. Reid is about to build a pulp factory on a large scale at Grand Lake. The capital is to be \$2,000,000, and it will be in operation before the end of this year. He is also to work an iron-pyrites mine at Bay of Islands, the capital to be \$1,000,000. From iron pyrites is made sulphuric

acid, which is necessary in the pulp manufacture; so that at Grand Lake are coal, inexhaustible forests, and iron pyrites—a combination that rarely occurs in any single locality.

Whale Fishery.—The Cabot Steam Whale-Fishing Company began operations in July last with a single steamer called "The Cabot." The success of the little steamer was wonderful. She captured 91 whales, and her gross earnings were \$22,000. This was done in less than four months. She was built in Norway, and the captain and crew are Norwegians. The whales are taken by firing a bomb which, on striking the whale, explodes, killing it instantly, and at the same time develops a gas which prevents the animal from sinking. The whales are the sulphur-bottom, the finback, and humpback. They are in great numbers round the coast. The company intend building a second steamer this year, and will erect a second factory for the extraction of the oil at Hermitage Bay.

Events.—The year 1898 was eventful. In the general elections of November, 1897, Sir William Whiteway's party were defeated, and a new Government came into power, headed by Sir James Winter, the Hon. A. B. Morine being Minister of Finance. It proved to be a strong Government, and during its first session passed many useful measures, the most important being the Reid contract, already referred to. After the session Sir James Winter and the Hon. A. B. Morine went as deputies from the Government to the Colonial Office. One of their principal objects was to induce the Right Hon. Joseph Chamberlain, Colonial Minister, to grant a royal commission to investigate the working of the treaties on the French shore. In this they were successful, and Sir John Blamston and Sir James Erskine were appointed commissioners for this purpose. After spending two months in the colony, during which they visited the whole of the French shore and examined a large number of witnesses, they returned and made their report. That report has not yet been made public, but its character may be inferred from Mr. Chamberlain's speech at Manchester in November last, in which he emphatically charged the French with a system of constant aggressions in Newfoundland which, while highly injurious to the colony, did themselves no good, and which were unwarranted by the treaties. In subsequent speeches he was even more pointed, and said that "by means of alleged rights under antiquated treaties they have strangled our colony of Newfoundland, and have done so without a penny of advantage to themselves." He further said that "if they were desirous of amity with England, it will be an easy thing for them to abandon those antiquated rights for a satisfying compensation." The people—so long neglected and oppressed by these treaties, which were made for a state of matters that ceased to exist long ago—saw at once that they had found a champion in Mr. Chamberlain. The condition of affairs had at last become intolerable, and only one remedy was of any value—the total extinction of French treaty rights on the shores of the island. With St. Pierre and Miquelon and their bank fishery Newfoundlanders have no wish to interfere; but they must be cleared out of the island, and this can be done by an equitable purchase. The French themselves begin to see the necessity of relinquishing those rights in a peaceable manner. One of their admirals has publicly declared that the Newfoundland fisheries are of no value whatever to the navy of France. The settlement of the French shore question in some shape is now assured. Hitherto, by these old treaties, one half the island—and that by far the better half—was practically locked up.

The past year was marked by another important event: The international conference for the settlement of all outstanding matters in dispute between England and the United States has been sitting for several months, and will soon close its sessions. Canada and Newfoundland are represented on this conference, the latter by Sir James Winter, Premier. Newfoundland is mainly interested in the fisheries.

Naval Reserve.—One other mark of favor was conferred on Newfoundland in the past year. She is the first colony to which has been extended the provision for recruiting for the naval reserve. The people being seafaring largely, it is expected that a great number of good recruits for the navy reserve will be found in the island. The terms are liberal, and the service is popular in the colony. Recruits will be trained for one month each year, and afterward will serve six months on board a man-of-war.

NEW HAMPSHIRE, a New England State, one of the original thirteen, ratified the Constitution June 21, 1788; area, 9,305 square miles. The population, according to each decennial census, was 141,885 in 1790; 183,858 in 1800; 214,460 in 1810; 244,022 in 1820; 269,328 in 1830; 284,574 in 1840; 317,916 in 1850; 326,073 in 1860; 318,300 in 1870; 346,991 in 1880; and 376,530 in 1890. Capital, Concord.

Government.—The following were the State officers during the year: Governor, George A. Ramsdell; Secretary of State, Ezra S. Stearns; Treasurer, Solon A. Carter; Attorney-General, Edwin J. Eastman; Adjutant General, Augustus D. Ayling—

all Republicans; Insurance Commissioner, John C. Linehan; Bank Commissioners, John Hatch, Alpheus W. Baker, and Thomas J. Walker, succeeded by George W. Cummings; Superintendent of Public Instruction, Fred Gowling, succeeded by Channing Folsom; Secretary of the Board of Agriculture, N. J. Bachelder; Labor Commissioner, Julian F. Trask; Public Printer, Arthur E. Clarke; Chief Justice of the Supreme Court, Alonzo P. Carpenter (died May 21, 1898). Lewis W. Clark, appointed May 31 (term expired by limitation—seventy years—Aug. 19), Isaac N. Blodgett, appointed Aug. 18; Associate Justices, William M. Chase, Robert M. Wallace, Frank N. Parsons, Robert G. Pike, Robert J. Peaslee, John E. Young; Law Reporter, Charles B. Hibbard.

Finances.—The cash in the treasury June 1, 1897, was \$241,296.27. The receipts during the year were \$1,325,687.68; total, \$1,566,983.95. The disbursements during the year amounted to \$1,152,468.09, and the cash on hand June 1, 1898, was \$414,515.86. The revenue was from the following sources: State tax, \$500,000; railroad tax, \$136,603.99; insurance tax, \$26,001.04; interest on deposits, \$2,077.09; license fees (peddlers), \$3,800; license fees (fertilizers), \$1,150; telegraph tax, \$3,330.84; telephone tax, \$3,503.04; charter fees, \$215; fees (insurance department), \$9,964.50; Lura S. Craig refunds part asylum charges, account Commissioner of Lunacy, \$10; Benjamin Thompson es-



FRANK W. ROLLINS,
GOVERNOR OF NEW HAMPSHIRE.

tate, income for the year ending Jan. 29, 1898, \$10,539.94; sales of public property (janitor), \$2; escheated estates, \$3,642.85; license fees (itinerant vendors), \$25; National Guard (fines), \$3; total revenue, \$701,768.29.

The ordinary expenses were \$247,051.97; extraordinary expenses, \$39,431.10; interest, \$115,175.38; total expenses, \$401,658.45; excess of revenue over expenses, \$300,109.84.

The State debt was reduced during the year by \$300,109.84, leaving the net indebtedness June 1, 1898, \$1,367,657.61.

The trust funds are now as follow: Fiske legacy, \$26,378.43; Kimball legacy, \$6,753.49; Teachers' Institute fund, \$57,949.21; Agricultural College fund, \$80,000; unclaimed savings-bank deposits, \$2,096.19; Benjamin Thompson trust fund, \$497,917.33; Benjamin Thompson State trust fund, \$23,748.40; total, \$699,843.05.

The total expenditures on account of the Soldiers' Home for the year ending May 31, 1898, were \$17,001.63; and there was received from the United States during the year for the home \$7,145.34.

The Treasurer says in his report: "The reduction of the net indebtedness of the State for the past two fiscal years has been phenomenal, aggregating \$460,083.76. The net reduction for the year 1897-'98 of \$300,109.84 has been exceeded in only one instance in twenty-five years, to wit, in 1873-'74, when, with a State tax of \$600,000, the net reduction of the debt was \$305,570.42. Since Jan. 1, 1892, the State has redeemed and canceled \$1,154,800 of the municipal war loan six-per-cent. bonds from the ordinary revenue without refunding a single dollar, thus reducing the annual interest account by the sum of \$69,288."

In April Gov. Ramsdell was authorized to expend a sum not to exceed \$25,000 in placing the National Guard of the State on a war footing. The \$30,000 usually spent for the annual encampment was this year used for equipping the troops.

Banks.—In the annual report of the Bank Commissioners the following list of the institutions which they supervise is given: "Seventy-eight savings banks; 13 State banks and trust companies, 10 of which have savings departments; 17 building and loan associations, organized under chap. cixvi of the Public Statutes. Of the 78 savings banks, 17 are in liquidation under the management of their own officers, and 8 are being wound up by assignees appointed by the court. Of the 14 trust companies, the Derryfield Savings Bank and Trust Company and the New Hampshire Trust Company of Manchester, and the Security Trust Company of Nashua are in the hands of assignees, and the Bank of New England, of Manchester, is in liquidation under the management of its directors. The 2 building and loan associations that were organized under special charters are in liquidation, the Granite State Provident Association by an assignee, and the Citizens' Building and Loan Association under a vote of its directors."

The liabilities of the savings banks and savings departments of the trust companies that were in active business in 1898 were: Amount due depositors, \$49,997,654.08; guarantee fund, \$2,974,502.48; interest, \$1,130,270.59; miscellaneous indebtedness, \$5,737.32—\$54,108,164.42; premium, \$2,622,947.74; total, \$56,731,112.16.

The report for the year ending June 30, 1898, shows an increase in bank deposits of nearly \$80,000 over those of 1897. Also in the last year the guaranty fund of the banks increased more than \$53,000, and the premium account, which is said to be a good index of prosperity, increased by \$634,000. The combined value of the cash and investments owned by the banks, compared with the amount

they owe to depositors, showed a surplus of \$6,733,458.18 on June 30, 1898.

Insurance.—The report of the Insurance Commissioner for the year ending Dec. 31, 1897, shows that four companies, two of other countries and two of other States, all conducted on the stock plan, were admitted during the year. A recapitulation of the business of New Hampshire insurance gives these figures: Risks written, \$38,654,557.49; premiums received, \$496,813.14; losses incurred, \$211,303.31. Sixty foreign stock fire and marine insurance companies of other States and countries: Risks written, \$40,809,722.87; premiums received, \$32,586.84; losses incurred, \$293,885.39. Four foreign mutual fire insurance companies: Risks written, \$2,366,806; premiums received, \$32,586.84; losses incurred, \$5,801.06. Recapitulation of business of foreign and marine insurance companies: Risks written, \$43,176,528.87; premiums received, \$606,027.76; losses incurred, \$299,686.45. The percentage of losses to premiums in 1896 was 46.40; the percentage of losses to premiums in 1897 was 46.33.

The number of fires reported for the year was 403, which is 105 fewer than for the year preceding; total loss, \$675,107; insurance paid, \$389,931.

The transactions of 18 authorized fidelity and casualty companies were: Risks written, \$17,020,708.54; premiums received, \$84,834.55; losses paid, \$39,565.56. One additional life insurance company was admitted to do business in the State, and the returns of the 23 authorized companies for the year were: Premiums received, \$923,008.56; losses paid, \$352,469.89; policies issued (2,746), \$3,695,668.46; policies in force (17,529), \$28,855,141.77.

Eight assessment life associations had 3,175 policies in force amounting to \$5,231,498. Assessments, etc., were paid to the amount of \$104,731.36, while the losses on claims paid amounted to \$97,429.70. Nine assessment casualty companies had 3,764 risks in force, amounting to \$4,677,600. Their assessments paid were \$42,863.40, and their losses and claims paid \$16,453.46. Fraternal beneficiary associations to the number of 35 report 28,934 certificates in force. The amount received from assessments, etc., was \$286,937.13, and the 182 losses and claims paid amounted to \$232,993.54.

Railroads.—The report of the Railroad Commissioners contains the returns of the 24 steam-railroad and 7 street-railway corporations doing business in the State June 30, 1897, the findings, decisions, and orders in the 71 cases heard by the board during the year, with statements and comments based upon the annual inspection and the returns. The report says:

"The financial exhibits of the steam railroads of New Hampshire for the year ending June 30, 1897, were disappointing. Instead of showing, as it was hoped they would, a recovery from the business depression, their receipts disclosed a shrinkage from the comparatively small volume of traffic in 1896."

"Great damage was done upon the Boston and Maine lines in April and July, 1897, by freshets, which swept away nearly one third of the roadbed of the Pemigewasset branch, destroyed a stone culvert at Bath and another at Exeter, wrecking a freight train, and killing 8 trainmen at each place, and injured bridges, fences, and roadbeds at other points. The money loss to the corporation can not be much less than \$150,000. There was no addition to the line mileage of any road during the year."

"Steady progress has been made in the equipment of all the steam roads with train brakes and automatic couplers."

"An electric road was built from Springfield, Vt., to the station of the Boston and Maine in Charles-

town, a distance of 6 miles, and opened for business in the summer of 1897. Authority to construct the section in New Hampshire, $2\frac{1}{2}$ miles in length, was granted by the Supreme Court after the board had determined that the public good required it. Stock to the amount of \$12,000, which represents the cost in this State, has been authorized by the board. The road connects one of the most flourishing villages in Vermont, which has heretofore had no railroad accommodations, with the Boston and Maine, and has a large traffic, much of which is freight.

"The Dover and Somersworth road, about 8 miles in length, which was sold by order of the court for \$105,000, passed into the possession of the purchasers, who were the bond owners, Feb. 1, 1897. It was a wreck when they received it, and the purchase price represented little more than the franchise. They have reorganized the corporation and with the approval of the board capitalized the investment in stock to the amount of \$100,000 and issued \$50,000 in bonds, the proceeds of which are being applied to the reconstruction of the road, in which they had expended \$40,719.78, June 30.

"The Nashua road reconstructed 13,286 feet of its track.

"The Manchester road was extended 16,750 feet during the year, and 7 cars were added to its equipment.

"The 7 street railroads that were in operation on July 1 last have an aggregate length of about 60 miles, with about 8 miles of double track and sidings. They are capitalized at \$1,858,500, of which \$740,000 is stock and \$618,500 bonds, and having a floating indebtedness of \$91,719.28. They earned last year \$232,820.97, and expended for operation and fixed charges \$262,839.28. None of them charged anything for depreciation of track or equipments, and only one of them, the Manchester, paid a dividend. The net earnings were $1\frac{1}{2}$ per cent. of the stock and debts."

The volume of traffic, though slightly larger than in 1897, was below that of 1896, and the returns of the steam railroads throughout the State do not show a business recovery. The earnings in 1896 were \$34,108,864.48; in 1898 they were \$33,241,290.26, a loss of \$869,074.17.

The permanent improvements on the Concord and Montreal have been completed. A new passenger station and signal towers were built at Manchester.

Road Building.—The New Hampshire College of Agriculture and the Mechanic Arts has been making experiments in road building. For this purpose they chose a section of what they term "average country road" about a mile long. It was 66 feet wide and nearly straight as laid out; but masses of rock upon the sides in many places forced the travel out of the direct line, and in other places the same result was caused by ravines requiring heavy fills. The traveled way was built 23 feet wide in the middle of the laid-out 66 feet, and the sidewalk was rebuilt on the north side of the laid-out road. They reached the conclusion that there is need of a large amount of rock work upon the average country road; that the steam drill is absolutely essential for handling large rock masses, and is capable of doing exceedingly economical work that the ownership of the necessary plant, with boiler and forge omitted, is within the means of a large number of towns; that it may save the cost of the entire plant in the first season; that it is simple in construction, is made to stand banging, and less liable to get out of order than ordinary farm machines.

Education.—The State spent during the year \$5,939.25 for the Department of Public Instruction, this amount being for the salaries of superintendent and clerk, printing, and incidentals. The

Teachers' Institutes received \$2,233.41, and Dartmouth College \$5,000. The latter graduated 71 men from the academic department. We quote from Gov. Rollins's message to the Legislature of 1899:

"The master of the State grange, Mr. N. J. Bachelder, in his annual address, says: 'The concentration of wealth has drained many rural towns of their means of supporting schools, and it is manifestly the duty of the State to provide respectable means of education for the children of the State, irrespective of their location.' The movement which the grange advocates is being taken up in other States, and is a movement to increase the size of the unit for educational purposes. In New England our unit has always been the town. The proposition now is to make it the State, or at least the county. It is a broad question, and one meriting careful examination, and will probably meet with some antagonism from the wealthier communities; but the possession of wealth brings with it responsibilities which may not be avoided. I doubt if any State in the country is called upon for so little direct aid for education as New Hampshire. The appeal that comes to us from the rural sections of the State for greater consideration is one which will enlist your assistance if it can be given without injustice to other localities. The State has assisted Dartmouth College and the Agricultural College at Durham in a desultory way."

Law-and Order League.—The State Law-and-Order League held its annual meeting in Concord, June 20, 1898. The report of the Executive Committee was in part as follows: "At the time of holding the annual meeting of the league one year ago the Legislature was in session and our prohibitory laws threatened by the liquor interests of the State. Bills were introduced by the liquor interests to repeal the moiety clauses of the statutes, the nuisance act, and to repeal all the existing prohibitory laws and substitute a license law. Probably there was never a more determined effort on the part of the liquor fraternity to repeal the laws. All attempts to weaken the law were defeated by large majorities. The final vote to repeal the prohibitory law and enact a license law showed the largest majority in opposition to its repeal that has ever been known since the law was placed on the statute books.

"This, we think, has had a good effect, and has led many of our people to feel that the laws on this subject are likely to remain upon the statute books, as stable as the granite hills.

"A great gain has been made, especially in Cheshire County. There are less than half as many saloons in that county as there were one year ago.

"A great effort has been made to accomplish something in Hillsborough County. This is the one county of all the ten in the State where it is exceedingly difficult to obtain a grand jury composed of men who dare not violate their oath. It has therefore been found necessary to take some course whereby the use of the grand jury could be avoided. Some of the members of the league obtained petitions of more than 20 legal voters in the city of Manchester asking the court to enjoin the owners and proprietors of more than 40 liquor saloons in that city under the nuisance act."

The following is a list of the officers: President, Hon. David H. Goodell, Antrim; Vice-Presidents, Prof. E. W. Bingham, Derry; Col. Daniel Hall, Dover; Rev. Mr. Allis, North Conway; Rush Chellis, Claremont; Hon. Alvin Burleigh, Plymouth; Rev. C. L. White, Nashua; Rev. J. P. Jordan, Laconia; Rev. Elihu Snow, Concord; Dr. A. W. Wark, Lancaster; Rev. E. J. Smith, Marlborough. Executive Committee, Rev. D. C. Babcock, Dover; D. C. Remick, Littleton; Rev. J. H. Robbins, Con-

cord; Rev. D. C. Knowles, Tilton; Rev. J. H. Bliss, Franklin; Rev. J. S. Harrington, Farmington; Hon. John B. Smith, Hillsborough; C. P. Willey, Portsmouth; Hon. Dexter Richards, Newport; I. J. Dunn, Keene; Hon. L. H. Pillsbury, Derry; George B. Cox, Esq., Laconia; Rev. J. R. Horne, Bartlett; Rev. Henry H. Manser, East Jaffrey.

Rev. Dr. D. C. Knowles, Rev. J. H. Nichols, and L. H. Pillsbury were appointed a committee of agitation.

Forests.—Gov. Rollins says in his message: "I can not escape the conviction that the forests of New Hampshire are among the first and most important of our resources, and that we can not long postpone the necessity of taking action to secure their preservation from wanton destruction. Already they support directly an industry which produces \$10,000,000 annually, and indirectly they contribute largely to the public welfare in both a scenic and economic sense. They are capable also, I believe, of contributing increasingly to the income of the State treasury if a suitable means of State ownership and management could be devised. Pending that, however, I recommend that the work of education and investigation already begun by the Forestry Commission be continued, and that a reasonable appropriation be placed at the disposal of the board for making an accurate forest survey of the White Mountain region with a view to determining exactly what part the State should take in any effort to perpetuate the forest cover and to secure its rational and continued use. The most obvious means to arrest the devastation of the forest cover is to apply the police power of the State in such a manner as to prevent the removal of immature timber. To this end, therefore, I commend to your attention the reports of the Forestry Commission, which treat this subject in detail. I also invoke your individual interest in behalf of forest culture, to the end that all of our people may be led to see the importance of our natural resources of climate and scenery, which contribute so largely, both directly and indirectly, to the income of our citizens."

Industrial School.—The annual appropriation for the State Industrial School at Manchester is \$6,000, and in the last year a special appropriation of \$2,500 was added.

Political.—The Republican State Convention was held in Concord, Sept. 13. The significant portions of the platform adopted were the following:

"The Republicans of New Hampshire reaffirm the St. Louis platform, especially indorsing the gold standard, and congratulate the people upon the speedy fulfillment of its important pledges.

"We heartily commend the wise and patriotic administration of President McKinley. The patience, tact, and sagacity of the President have maintained the unity of his party while securing the approbation of the whole people, irrespective of political affiliations.

"We commend the successful conduct of the war with Spain, a war prompted by the noblest sentiments of humanity.

"We approve the increase of the navy, the upbuilding of our merchant marine, the enlargement of the regular army to meet the present requirements of the country, the construction of a canal connecting the Atlantic and Pacific oceans, the annexation of Hawaii and Puerto Rico, the provision for a free and stable government for Cuba and its ultimate annexation.

"While reaffirming the Monroe doctrine, we favor such disposition of the Philippines as will best promote the growing commercial and political interests of the United States, extinguish the sovereignty of

Spain, and make good our obligations to the peoples of those islands.

"We favor a conservative movement for the permanent improvement of the public roads of the State.

"The Republican party favors, as it did in the Legislatures of 1893 and 1895, submitting to the people the question of calling a constitutional convention, that they may act upon the question of abolishing free passes, and upon any changes of the organic law which experience has shown to be advisable to make. In the meantime we favor such legislation as may properly anticipate the adoption of a constitutional amendment prohibiting free passes."

Frank W. Rollins, of Concord, was nominated for Governor.

The Democratic Convention met in Concord and adopted a platform, of which the significant paragraphs were these:

"We, the Democrats of New Hampshire, reaffirm the principles of the Democratic party as enunciated in national conventions since the foundation of the party.

"We emphatically declare our admiration for, and confidence in, the wisdom and patriotism of our great national leader, William J. Bryan.

"We renew our adhesion to the Monroe doctrine, asserting that our national 'sphere of influence' comprehends and embraces the entire Western Hemisphere; and that, beyond securing requisite coaling and naval stations in other parts of the world, for the convenience and protection of our commerce, we should seek to acquire no territory.

"We oppose the maintenance of a large standing army in time of peace. We favor a navy equal to that of any other nation, and the construction and maintenance by the United States of an isthmian canal, free from the control of all private individuals, corporations, syndicates, or foreign governments as a preventive of war.

"Taxation is an incident, not an object of government. The great sums now required to defray necessary expenses should be levied through a system of imposts bearing as lightly as is consistent upon those articles in common use.

"We denounce the Republican party for the passage of the Dingley tariff bill, a measure calculated only to protect monopolies, insufficient to raise the necessary revenue to meet the ordinary expenditures of the Government, and based upon no principle of equity or justice.

"We condemn the action of the Secretary of the Treasury in the unnecessary issue of \$300,000,000 of long-term interest-bearing bonds.

"We favor the election of Secretary of State, Treasurer, Attorney-General, Superintendent of Public Instruction, Railroad, Bank, and Insurance Commissioners by the people at the polls.

"We favor the calling of a convention to amend the constitution by providing for the election of all judges, for stated terms, by the people; also abolishing the Executive Council, and establishing the office of Lieutenant Governor.

"We demand the repeal of all laws providing standing appropriations for any and all purposes.

"We condemn the action of the last Legislature in enacting a law legalizing free passes, and demand its repeal.

"The history of prohibitory legislation in this State is a disgrace to civilization. It has been conceived in hypocrisy, nurtured in greed and corruption, is openly disregarded, and enforced spasmodically by mercenary cranks. It cultivates perjury and breeds contempt for the majesty of law. We demand its repeal and the enactment of such laws as will provide for the prohibition, regulation, or

license of the sale of liquors as the voters of the several towns and cities shall deem best within their respective limits."

Charles F. Stone, of Laconia, was nominated for Governor.

The Prohibition party nominated Augustus G. Stevens, of Manchester, for Governor.

At the election, in November, the Republican ticket received 44,730 votes; the Democratic, 35,653; the Prohibition, 1,333; the People's, 104; the Socialist Labor, 263; the Socialist Democrat, 350; and scattering, 42. The Legislature of 1899 will have 22 Republicans and 2 Democrats in the Senate, and 249 Republicans and 149 Democrats in the House.

NEW JERSEY, a Middle Atlantic State, one of the original thirteen, ratified the Constitution Dec. 18, 1787. Area, 7,815 square miles. The population, according to each decennial census, was 184,139 in 1790; 211,149 in 1800; 245,562 in 1810; 277,426 in 1820; 320,823 in 1830; 373,306 in 1840; 489,555 in 1850; 672,035 in 1860; 906,096 in 1870; 1,131,116 in 1880; and 1,444,933 in 1890; by the State census of 1895, 1,672,942. Capital, Trenton.

Government.—The following were the State officers during the year: Governor, John W. Griggs until Jan. 31, followed by David O. Watkins, who acted until Foster M. Voorhees was elected; Secretary of State, George Wurtz; Treasurer, George B. Swain; Comptroller, William S. Hancock; Attorney-General, Samuel H. Grey; Adjutant General, William S. Stryker; Superintendent of Public Instruction, Charles J. Baxter; Commissioner of Banking and Insurance, William Bettle—all Republicans. Chief Justice of the Supreme Court, William J. Magie, Republican; Associate Justices, Gilbert Collins, Republican; David A. Depue, Republican; Jonathan Dixon, Republican; Bennet Van Syckel, Democrat; Charles G. Garrison, Democrat; Job H. Lippincott, Democrat; William S. Gummere, Republican; George C. Ludlow, Democrat; Clerk, William Riker, Republican. Court of Errors and Appeals: Judges, J. W. Bogart, G. Krueger, William L. Dayton, John S. Barkalow, Charles E. Hendrickson, and James H. Nixon. Chancellor, Alexander T. McGill.

Finances.—The income of the State fund for the year ending in 1896 was \$2,138,532.88; for the year ending in 1897 it was \$2,298,777.88; an increase of \$160,245. The disbursements for 1897 amounted to \$2,318,060.97; balance in bank to the credit of the State fund Nov. 1, \$945,345.89. Of the total disbursements out of the State fund the sum of \$310,948.57 was expended for the erection and improvement of public buildings and other purposes not connected with the ordinary administration of the State affairs; these disbursements, denominated extraordinary, were as follows: For completing Camden Armory, \$103,000; State Reformatory, \$80,000; improvement at State Hospital, Morris Plains, \$74,995.23; constitutional amendments, \$17,123.87; new building, Reform School for Boys, \$8,000; National Guard expenses at the inauguration of the President, \$7,376.51; equipment and furnishing Camden Armory, \$6,000; Chickamauga and Chattanooga Commission, \$5,000; new building at Deaf-Mute School, \$4,953.96; Trenton Battle monument, \$4,500. Ordinary disbursements amounted to \$2,002,112.40. The net increase in revenue was \$160,245—from official fees, \$53,299.55; from State tax on railroad corporations, \$35,776.77; from sinking fund, \$35,000; from collateral inheritance tax, \$31,584.96; from State Prison, \$11,551.77; from which amounts a decrease of \$6,968.05 in judicial fees, from miscellaneous corporations and from minor sources, was deducted. During the year the sum of \$189,400 of

the war bonds fell due and was paid out of the ordinary income; this, as against \$57,000 paid on the same account of 1896, was an increase of \$132,400 in the reduction of the bonded debt of the State. The sum of \$200,000 was appropriated by the Legislature for the payment of that amount of bonds falling due

Jan. 1, 1898, which sum was paid, leaving the total bonded debt \$194,000. Besides the war debt, there was owing \$48,000 to the Agricultural College, which made the entire debt of the State \$242,000. The only direct tax for State purposes levied was the school tax, amounting to \$2,124,795, which amount, together with the added income from the school fund, was distributed among



FOSTER M. VOORHEES,
GOVERNOR OF NEW JERSEY.

the counties. The total receipts from the office of the Clerk in Chancery were \$44,097.90; expenses of running the office, \$29,031.03; net balance paid into the treasury, \$15,066.87.

Valuation.—The total assessment of real and personal property for 1897 was \$812,616,240, an increase of \$15,211,738 over 1896; of this sum, \$714,015,890 represented real estate and \$138,577,197 personal property; the assessment of real estate for 1897 was an increase of \$14,614,211 over that of 1896, and the assessment of personal property was an increase of \$177,508. The total amount of exempt property for 1897 was \$88,392,689.

The ratables for 1898 show an increase in the total valuations of \$31,756,106 over those of 1897, the aggregate valuations for 1898 being \$844,365,198. The largest increase in any one county was in Bergen, where the valuations rose from \$25,325,603 in 1897 to \$44,130,645 in 1898, because the State Board of Taxation called the local assessors to account for undervaluing all property in Bergen County. In all the counties excepting Burlington, Camden, Gloucester, Hunterdon, and Warren there was a notable increase; in the five counties named there was an aggregate decrease of \$998,857—a decrease attributed to depression in agriculture. The sum of \$844,365,198 was the net valuation of the combined real and personal property after deduction of \$35,707,935 of debts. The gross valuation of real estate was \$740,657,371, and of personal property \$139,415,762.

The aggregate assessed valuation of railroad and canal property was \$236,464,356; the tax for State uses was \$1,182,321, and for local use \$403,788.85, making the total tax \$1,586,110.14.

Banks.—There were in 1898 26 savings banks, 21 State banks, and 23 trust companies operating in the State, their aggregate resources being \$87,327,728, a net increase for the year of \$8,443,882. The total resources of the savings institutions exceeded \$50,000,000, the increase for the year being \$3,944,711, which was greater by \$1,563,874 than the increase for 1896; the amount deposited during the year, excluding interest credited, was \$2,002,800 in excess of the amount withdrawn, which was more than three times the excess for the preceding year; the net gain in the number of depositors or open accounts was 8,387; the average amount of each deposit or open account had increased \$7.02; the

amount due depositors showed an increase of \$3,347,747, which was 76 per cent. greater than the previous year's gain; loans and mortgages had increased \$1,652,790; the increase in bonds owned was \$1,828,029 at market values and \$1,500,678 at par values.

The resources of the State banks aggregated \$10,925,336.31. In his report the Commissioner of Banking and Insurance said: "The investigations instituted by this department have disclosed, in some instances, conditions that necessitated the taking of extreme measures, and involved large pecuniary sacrifices on the part of stockholders and others, in order to protect the credit and solvency of the institutions. The conditions referred to were brought about by excessive loans to favored individuals and corporations whose financial responsibility did not warrant such an extent of accommodations, and in whose undertakings directors or officers of the bank were to a greater or less extent personally interested.

The aggregate resources of the trust companies was \$26,259,730.27. The increase in deposits was nearly 21 per cent. as compared with the previous year; in total resources the increase was 17 per cent. A number of the trust companies pursued the policy of accumulating an ample surplus, to cover possible contingencies, before commencing the payment of dividends.

Building and Loan Associations.—The number of associations reported was 334, of which 309 were locals, 14 State, and 11 national. The locals reported a total of 603,396½ shares in force, of which total 201,670½ shares were borrowed on for loans by the membership. Nearly 90 per cent. of the pledged shares were for real-estate mortgage loans. The total number of new shares issued, 124,871, was a decrease of 7,062 from the number issued in 1896. Of the canceled shares there were withdrawn voluntarily 86,819½; lapsed or forfeited, 2,458; redeemed, retired, 892½; matured, 12,380½. Borrowers numbered 28,258, over one third of the shareholders borrowing. The net assets of the locals reached \$41,039,934, the aggregate valuation of the shareholdings. The State associations, working on the national plan, but only in the State, reported 187,146½ shares in force, and the nationals 66,393. Less than 19,000 of the national shares were held by New Jersey membership. The non-locals had together an aggregate of 44,515 pledged shares, or somewhat over 17 per cent. of outstanding shares; total number of shareholders, 29,520; borrowers, 2,584; net assets, \$3,487,401. The number of shares issued by the nonlocals during the year was 103,948½; canceled, 67,134. The total gross resources of the associations, local and non-local, amounted to \$47,413,645.48, of which \$44,526,336.21 were the net assets, which in the local associations practically meant the aggregate value of outstanding shares. The total invested on bond and mortgages on real estate was \$40,941,291.42. The real estate held was valued at \$1,715,788. Much of the real estate owned by the nonlocals was the result of purchase as an investment. The aggregate of the outstanding bills payable, money borrowed by the associations, was \$219,286.14 in the nationals and State and \$617,416.31 in the locals—a total of \$836,702.45, or nearly 1.8 per cent. of the liabilities. Of the total income, \$19,833,342.06, the largest sum was from installments of dues and interest, and from premiums, fines, and fees—\$11,391,644.83, or over 57 per cent. Under disbursements, \$18,403,553.28, the largest item was for loans to borrowers, \$8,990,595.69, or nearly 49 per cent. of the total; nearly 85 per cent. of this was placed on bond and mortgage. There were 108 local and 7 nonlocal associations which foreclosed

mortgages during the year; 193 local and 27 non-local mortgages, amounting to \$427,832.24 and \$68,286, respectively. The total losses resulting from foreclosures involved was \$8,511; from depreciation of property, \$14,448. Embezzlement in four local associations amounted to \$95,879.37, and in one State association to \$9,000, a total of \$104,879.37.

Insurance.—According to the report of the Commissioner of Banking and Insurance for 1897, there were 160 fire and marine companies doing business in the State; those transacting fire insurance only numbered 138, while 25 were engaged in both fire and marine insurance, and 2 did a marine business exclusively. The aggregate fire insurance business done during the year was summarized as follows: Risks written, \$538,170,522; premiums received in cash, \$4,481,039; contingent premiums received, \$538,510; losses paid, \$2,122,328.

The assets of the fixed-premium life companies amounted to \$1,337,400,727, an increase for the year of \$107,229,587; the aggregate of liabilities, exclusive of \$9,665,750 of capital stock, was \$1,151,992,006, of which \$1,118,896,684 was the calculated value of all outstanding policies or the reserve; the increase for the year in the liabilities except capital was \$96,530,249. The total income was \$301,807,677; premiums received aggregated \$240,546,657; receipts from interest and dividends, rents and miscellaneous profits, were \$61,261,020; total disbursements, \$212,147,742, of which \$137,828,447 was paid to policy holders for death claims and matured endowments, annuities, lapsed, surrendered, and purchased policies, and dividends.

The assets of the fidelity and casualty companies amounted to \$32,169,473; liabilities, excluding capital stock of \$11,060,860, aggregated \$13,570,821; total income, \$18,653,152, the income exceeding expenditures by \$1,927,350.

The fraternal beneficiary associations operating in the State numbered 53, representing a total membership of 1,122,956; during the year they received dues and assessments from members amounting to \$25,953,780, and paid claims aggregating \$23,425,520.

Education.—The number of persons between five and eighteen years of age reported for 1897 was 456,862; total enrollment in the public schools, 294,880; average daily attendance, 191,776; number of children the public schools will seat, 270,866; total valuation of school property, \$12,605,882; number of school buildings, 1,766; male teachers, 804; female teachers, 5,065; average salary paid per month to male teachers, \$31.39; average salary paid per month to female teachers, \$48.19; average cost per pupil, calculated on total school census, \$9.47; average cost, calculated on enrolled attendance, \$18.57; average cost, calculated on average attendance, \$21.66. Receipts: Appropriated from income of State school fund, \$200,000; State school tax, \$2,194,845; district and city tax, \$2,965,118.63; appropriated by counties for salaries and expenses of county superintendents, \$29,436.99; interest of surplus revenue, \$31,909.48; raised in districts for manual training, \$38,200; from sale of district bonds, \$373,666.52; raised in districts for school libraries, \$9,124.56; raised in counties for teachers' libraries, \$1,000. Among the disbursements were: For teachers' salaries, \$3,170,740.48; for building and repairing schoolhouses, \$963,794.72; for taking school census, \$20,307; for debt and interest, \$333,173.19; for manual training, \$54,275.91; for textbooks and apparatus, \$252,453.78; for expenses and repair of State Normal School, \$39,000. Number of schools that maintained school six months, but less than nine, 35; number that maintained school nine months or more, 342; average time the schools were kept open, nine months and three days.

The report of the State Librarian gives an account of the beneficent influence of the State library in connection with the schools. There are 48,986 volumes in the library; there was an average attendance of 43 pupils a day five days in the week for nine months, with the average use of 50 volumes daily, being a total for the year of 7,740 pupils, with the use of 9,000 volumes.

The State Prison.—The convict population of the State Prison at the close of 1897 was 1,131, greater by 108 than in the preceding year. The increase in number of prisoners was due to the fact that an arrangement was made about the beginning of the year to receive and maintain a limited number of United States prisoners sentenced by courts outside of the district of New Jersey, the United States agreeing to pay a fair *per diem* for their maintenance. Of this class, and of prisoners sentenced by United States courts sitting within the State, there were received during the year 126. The highest number of inmates at any one time during the year was 1,134, and the daily average was 1,075. The total expenditures for maintenance of the prisoners during the year was \$84,470.83. The average number of men employed during the year upon contract work was 4254; the computed value of the service of those engaged in ordinary labor was 45 cents per day, and of the skilled labor employed at mechanical work 75 cents per day. In addition to the outlay for maintenance there were the following expenses: For salaries of deputies and minor officers, \$84,404.73; for salaries of inspectors and executive officers, \$9,500; for furniture and general repairs, \$6,940.41; for furniture and appliances for new buildings, \$2,876.64; for payments to convicts upon their discharge, \$1,459.50; total, \$181,651.62. Receipts amounted to \$56,668.95; the expenditure over revenue was \$132,982.67. Net cost *per capita per annum*, \$123.71.

The Riparian Fund.—The receipts of the Riparian fund from all sources for 1897 aggregated \$108,687.03. Grants of riparian land in fee were made to the amount of \$21,718.35.

Factories and Wages.—Returns from 349 establishments reporting gave \$56,099,306 as the amount of capital invested in manufactures, \$33,080,224 as the cost of raw material, \$62,000,000 as the selling price of goods produced, and \$17,077,758 as the amount paid out in wages. The average number of employees in the 349 establishments was given as 42,644; the greatest number employed at one time was 45,728, and the least number 38,141, leaving 7,587 who were idle during some part of the year. Weekly salaries were reported as follows: Under \$5, 3,625 males, 5,296 females; \$5 or more, 1,438 males, 3,055 females; \$6 or more, 2,447 males, 2,496 females; \$7 or more, 3,153 males, 1,673 females; \$8 or more, 2,591 males, 1,155 females; \$9 or more, 3,936 males, 821 females; \$10 or more, 4,296 males, 798 females; \$12 or more, 4,096 males, 360 females; \$15 or more, 3,113 males, 123 females; \$20 or more, 1,451 males, 15 females.

The State Hospital.—The whole number of cases under care during 1897 was 1,238—643 men and 595 women. Of this number 167 (97 men and 70 women) were discharged; recovered, 71; improved, 21; unimproved or stationary, 5; escaped, 1; and 70 (37 men and 33 women) died. At the close of the year there remained under care 1,071 patients—546 men and 525 women.

Dependent Children.—The Legislature of 1896 constituted a commission called "The New Jersey Commission on Defective, Delinquent, and Dependent Children," and this body reported that there were 445 dependent children in the various almshouses of the State; the number of children cared for in the various homes and asylums was 3,005.

Disabled Soldiers.—There were 819 beneficiaries in the Soldiers' Home at Kearny in 1897. Of this number 195 were discharged, 31 were dropped from the rolls, and 41 died, leaving 552 at the close of the year. The board of managers acted upon 215 applications during the year, of which number 49 were declined. The average age of the inmates was sixty-four years.

Vital Statistics.—The number of deaths in the State in the year ending June 30, 1897, was 29,822. The estimated population of the State was 1,764,194, thus giving an annual death rate of 16.90 per 1,000, the lowest rate since 1889. The number of deaths from the 10 chief preventable diseases was 9,427, as follows: Consumption, 3,327; diarrheal diseases of children, 3,450; diphtheria and croup, 1,382; typhoid fever, 478; whooping cough, 321; scarlet fever, 208; measles, 156; malarial fever, 132; erysipelas, 68; no deaths from smallpox. In allusion to deaths from consumption the secretary of the State Board of Health says in his report that the deaths by consumption this year were 121 fewer than during the previous year, and 255 fewer than the average for the ten years 1887-'96.

Decision.—An act was passed by the General Assembly in 1896 authorizing cities of the second class to issue bonds for high-school purposes to the amount of \$180,000. The measure was voted upon at the local spring election of 1896, and was adopted by a large majority. Pending negotiations for properties on which to build, the entire matter was removed to the Supreme Court on a writ of certiorari, and the law of 1896 was declared unconstitutional.

Political.—At the November election the State was carried by the Republicans, who elected Foster M. Voorhees Governor by a plurality of 11,632. The net Republican pluralities on the votes for Congressmen amounted to 10,429.

Legislation.—The following are among the acts passed by the late session of the General Assembly:

Providing that taxes may be paid in cities in two installments instead of at one time.

Providing that no deduction shall be made from the assessed valuation of bank stock by reason of any indebtedness to any State or national bank.

Providing for the selection of a series of plans to be used in public schoolhouses throughout the State.

Requiring an official investigation before persons are committed to insane asylums.

Providing that a married man living in separation from his wife by written agreement may transfer property without her signature.

Giving surrogates and clerks of first class counties salaries in lieu of fees.

Appropriating \$2,000 and authorizing the Governor to appoint two persons to erect a monument at Andersonville, Ga., in honor of soldiers from New Jersey who perished there.

Enabling towns to issue bonds for \$50,000 for school buildings.

Making it a misdemeanor to furnish newspapers or other publications with any libelous statement untrue in fact.

NEW MEXICO, a Territory of the United States, organized Sept. 9, 1850; area, 122,580 square miles. The population, according to each decennial census, was 61,547 in 1850; 93,516 in 1860; 91,874 in 1870; 119,565 in 1880; and 153,593 in 1890. Capital, Santa Fé.

Government.—The following were the Territorial officers: Governor, Miguel Antonio Otero; Secretary, George H. Wallace; Treasurer, Samuel Eldott; Auditor, M. Garcia; Adjutant General, H. B. Hersey, succeeded by William H. Whiteman in May; Solicitor-General, E. L. Bartlett; Superin-

tendent of Public Instruction, Manuel C. de Baca; Mine Inspector, J. W. Fleming; Chief Justice of the Supreme Court, William J. Mills; Associate Justices, Frank W. Parker, Jonathan W. Crumpacker, John R. McFie, and Charles Leland; Clerk, José D. Sena.

Finances.—The latest available report of the finances, a quarterly statement beginning March 7 and ending May 28, 1898, shows balances in the treasury, \$163,781.14; receipts during the quarter, \$38,418.41; total to be accounted for, \$197,199.55; payments during the quarter, \$76,281.22; balances May 28, \$120,918.33.

Valuation.—The property valuation subject to tax amounted to \$39,478,119.18, distributed among the counties as follows: Bernalillo, \$7,395,184; Chaves, \$1,475,829; Colfax, \$2,722,180; Dona Ana, \$2,446,692.85; Eddy, \$1,113,075; Grant, \$3,468,236.45; Guadalupe, \$420,558; Lincoln, \$1,413,832; Mora, \$968,135; Rio Arriba, \$800,222; San Juan,

advanced course. During the year 1897-'98 the enrollment reached 72. The scholastic year consists of forty weeks.

Coal.—The output of coal for the year 1897-'98 amounted to 858,583 tons, valued at \$1,408,680. Bernalillo County produced 372,611 tons; Colfax, 213,972; Santa Fé, 248,000; Rio Arriba, 22,500; Socorro, 1,500. Total number of men employed in coal mining, 1,888, an increase of 523 over the previous year.

Penitentiary.—The total number of convicts in confinement in 1897 was 305; in 1898, 215. The largest number of convicts during 1898 was 222, the smallest number 186, making a daily average of 207, as against 197 in 1897. Regarding religious instruction in the Penitentiary, the report says: "Divine services have been very much neglected, owing partly to the fact that the last Legislature refused to make a small appropriation for a chaplain, and partly to the employment of a large num-



NEW MEXICO'S TERRITORIAL CAPITOL.

\$729,310; San Miguel, \$4,209,564; Santa Fé, \$1,851,701; Sierra, \$1,055,072.30; Socorro, \$4,611,482; Taos, \$953,689; Union, \$1,174,850; Valencia, \$2,668,506.5

Education.—Seventy-nine per cent. of the inhabitants are able to read and write, leaving 21 per cent. of illiteracy. The district schools number 523; enrollment, 20,674; teachers, 546; average daily attendance of pupils, 16,845.

It is officially reported that the Indian industrial schools at Santa Fé and Albuquerque, supplemented by the governmental schools at the various pueblos, are doing good work for the education of Indian children. The report says: "Nearly every Indian child in New Mexico is provided with the means of education, and the schools are very largely attended. For many years it was difficult to obtain the consent of the parents for the education of their children at these public institutions, as they had much hesitancy in permitting their children to leave home and go under the control of the teachers. All this is now changed, and the parents are taking the greatest interest in the schools, in many instances showing intense anxiety to have their children educated. From present appearances, the majority of the Indian children of the Territory will be as well educated in a few years as the other youths."

The Normal School at Silver City has completed the fourth year of its existence. Students who desire to teach are offered both an elementary and an

ber of the convicts at the rebuilding of the Capitol every Saturday afternoon. These men return to the Penitentiary from their work too late to be bathed, shaved, and cleansed, and as this has to be done every Sunday morning divine service has to be omitted."

Insane Asylum.—There were 57 inmates of the asylum—33 males and 24 females—the majority of whom were reported to be incurable. The superintendent says: "Since the opening of this institution the number of chronic and incurable cases admitted has gradually but steadily increased, until the vacancies have been reduced to a very few, rendering it impossible, for lack of room, to admit many curable patients. This fact will account for the small number discharged as cured."

Railroads.—The Atchison, Topeka and Santa Fé Railroad traverses the Territory from north to south, with numerous branches running into the mountains. The Denver and Rio Grande road affords egress by way of Denver, and is claimed to be "the most magnificent scenic line ever built." The Pecos Valley and Northeastern road extends 89 miles from Pecos City, Texas, to the county seat of Eddy County, and 73 miles to Roswell, the county seat of Chaves County. A contemplated extension to Amarillo will be 208 miles, making the entire length of the line 372 miles. By the extension of this road the Territory will be able to ship stock and various products directly to larger mar-

kets, without having to drive across the country. The Union Pacific, Denver and Gulf road is built through the northeastern corner of the Territory for 80 miles. About 150 miles of the Southern Pacific road runs through the Territory. The Almagordo and Sacramento Mountain road has now completed its line to the Sacramento mountains. These mountains are noted for their excellent timber. The Santa Fé Pacific (formerly the Atlantic Pacific) takes in about 200 miles of the Territory, and the Silver City, Deming and Pacific road is completed.

Sheep.—In his report to the Secretary of the Interior for 1898, the Governor says of the sheep industry:

"New Mexico's natural adaptability to sheep raising and woolgrowing was recognized by the Spaniards when they settled in this section about three hundred years ago, and they introduced large numbers of Merino sheep, which soon became the principal support of the people, furnishing them with food and raiment. Since that time this industry has occupied a prominent position in the Territory, and it is to-day, as it has been for many years past, the most important and profitable in New Mexico. At this time there are owned within the borders of the Territory over 4,000,000 head of sheep, including the lambs grown this year, and with the exception of one State possessing many similar natural advantages, our Territory towers above all other States and Territories in the number of sheep owned. The original stock was of the Spanish Merino type of sheep, and from lack of fine-bred rams to keep up and improve the strain they gradually deteriorated in character, until they became a class unto themselves, displaying more of the characteristics of wild than of domestic animals. This trait developed in these sheep an ability to hunt for their food, and enabled them to subsist upon scanty herbage and to live without water for many days whenever conditions demanded or necessitated such modes of living. To-day, though improved by the best-blooded stock to be found, they still possess these desirable characteristics. The ewes make excellent mothers, caring for their lambs in a manner unequalled by any other breed of sheep, and fearlessly defending them against attack by carnivorous wild animals. Their fecundity is also remarkable, and there is always a high percentage of lambs born, running up, in some flocks, over 100 per cent. Possessing such qualities, the increase of the flocks is very rapid."

The cost of running the sheep for a year is stated to be about 30 cents a head, which covers the expense of herding, lambing, shearing, dipping, taxes, etc. The cost of shearing amounts to $2\frac{1}{2}$ to 4 cents a head, according to the class of sheep. The flocks are usually run in bands of 3,000 to 5,000. It is said that while a few years ago sheep could be bought for 75 cents per head, to-day ewes are selling freely at from \$3 to \$4 a head, yearlings (wethers) at \$2.50 to \$2.75, two years old and upward (wethers) at \$3 to \$3.25, and six months' lambs at from \$2 to \$2.25 a head. The clip of wool for 1898 amounted to about 15,000,000 pounds.

Irrigation.—Improved systems of irrigation are said to be developing rapidly. To quote again from the Governor's report: "There is in operation the Springer system of irrigation, with 50 miles of ditches and 5 reservoirs, covering 22,000 acres. The Vermejo system, which controls 57 miles of ditches and 10 reservoirs, supplies 30,000 acres. In the northwestern portion of the Territory there are 200 miles of ditches, watering 24,000 acres. There are several tracts of fertile soil accessible to streams, which will afford an ample supply, awaiting the attention of moneyed men. Also extensive ditch

systems are in operation in the Mimbres region of Grant County. The irrigation projects noted above are in the four corners of the Territory. In the meantime the great central portions are receiving attention, more than 50 companies having been organized for irrigation projects, and several having plants in operation, affording to the home seeker at the present time ample opportunity for settlement and reclamation. The valley of the Rio Grande presents the most extensive field for operations of this kind, as the present narrow strip of lands cultivated can be widened very materially by the proper disposition of the water which flows so abundantly from the north and is now allowed to be wasted. A very few years will find all the water now suffered uselessly to run away utilized to the highest degree, and enlarging the area of the agricultural and horticultural land to an extent almost fabulous. Meanwhile, individual enterprise is increasing the local supplies by the erection of multitudes of windmills, pumping from artesian wells in various parts of the Territory."

Decision.—Suit was brought in a lower court to eject certain defendants from the possession of certain mining property. The decision in the case by the Supreme Court of the Territory settles for the first time the question whether mineral land within the boundaries of a claimed Mexican or Spanish grant, such grant being at the time *sub judice* in the Court of Private-Land Claims of the United States, is open to exploration for mining purposes. The decision holds that, as the law now stands, there is no statutory reservation of any of the lands embraced within the boundaries of a claimed grant in New Mexico.

NEW YORK, a Middle State, one of the original 13, ratified the Constitution July 26, 1788; area, 49,170 square miles. The population, according to each decennial census, was 340,120 in 1790; 589,051 in 1800; 959,049 in 1810; 1,372,111 in 1820; 1,918,608 in 1830; 2,428,921 in 1840; 3,097,394 in 1850; 3,880,735 in 1860; 4,382,759 in 1870; 5,082,871 in 1880; and 5,997,853 in 1890. According to a State census taken in 1892, the population was 6,513,344, and according to an estimate made in December, 1898, by the State Board of Health, the population was 7,000,000. Capital, Albany.

Government.—The following were the State officers during the year: Governor, Frank S. Black, Republican; Lieutenant Governor, Timothy L. Woodruff; Secretary of State, John Palmer; Comptroller, James A. Roberts; Treasurer, Addison B. Colvin; Attorney-General, Theodore E. Hancock; State Engineer and Surveyor, Campbell W. Adams; Superintendent of Public Instruction, Charles R. Skinner; Superintendent of Insurance, Louis F. Payn; Superintendent of Banking Department, Frederick D. Kilburn; Superintendent of State Prisons, Austin Lathrop, who was succeeded on April 17 by Cornelius C. Collins; Superintendent of Public Works, George W. Aldridge until Dec. 2, when he was suspended from office by the Governor; Commissioner of Labor Statistics, John T. McDonough; Railroad Commissioners, Ashley W. Cole, George W. Dunn, and Frank M. Baker; Chief Judge of the Court of Appeals, Alton B. Parker; Associate Judges, John C. Gray, Denis O'Brien, Edward T. Bartlett, Albert Haight, Celora E. Martin, and Irving G. Vann.

Finances.—The State Treasurer reported a balance of \$1,654,225 in the treasury on Dec. 31, 1898, compared with \$2,283,341 on Dec. 31, 1897. The receipts for the fiscal year, ended Sept. 30, were \$30,488,406, and for the preceding year \$32,678,112. The payments were \$33,757,981, as compared with \$30,864,254 for the preceding year. Among the receipts were: General tax, \$8,036,124; canal tax,

\$2,120,086; school tax, \$4,048,065; inheritance tax, \$1,997,210; excise tax, \$4,215,860; corporation organization tax, \$334,812; and annual tax on corporations, \$2,162,434. The expenditures during the fiscal year exceeded those of last year by \$3,393,727. The State tax rate is 2.08 mills, compared with 2.67 mills in 1897. This is the lowest rate adopted



Copyright, 1897, Rockwood, N. Y.
THEODORE ROOSEVELT,
GOVERNOR OF NEW YORK.

by the Legislature since 1856, except in 1891 and 1892, when the large amount refunded by the national Government to the State allowed an abnormally low rate. It is distributed as follows: For canals, 0.17; for schools, 0.84; for canal maintenance, 0.19; for canal special appropriations, 0.07; for State care of the insane, 0.81; total, 2.08. The general appropriations made by the Legislature, including the appropriation bill carrying \$6,372,262.06, and the supply and supplemental supply bills appropriating \$1,850,000, amounted to \$10,112,605.86. To this are added appropriations made in 1897, but not included in the tax levy of that year, amounting to \$630,000, making \$10,742,605.86. The estimated revenues from the corporation tax, inheritance tax, liquor tax, and other sources, including a surplus of \$1,533,707.92, is \$10,749,457.92, leaving only \$6,852.06 to be raised by taxation for general purposes. The appropriations for canal bridges and repairs amount to \$224,126.14, and deducting a surplus of \$29,000 the amount to be raised for this purpose is \$195,126.14. The free-school tax amounts to \$4,112,200.

Valuation.—The State assessors during the year were Martin Heermance, Rollin L. Jenkins, and Edward C. Adams, each of whom received an annual salary of \$2,500. The report of the commission for 1897 shows that the total assessment of real and personal property was \$4,999,268,900, of which \$4,349,832,068 was real and \$649,386,812 personal. Comparing with 1896, this is an increase of \$308,055,502 in real and \$105,075,255 in personal property; a total of \$413,130,757. Of the total assessed value of real estate, \$1,787,066,091 is credited to New York, an increase of \$55,556,948; \$570,107,742 to Kings, an increase of \$14,796,745; \$106,189,634 to Queens, an increase of \$23,266,973; \$24,371,551 to Richmond, an increase of \$3,831,398; \$45,049,701 to Suffolk, an increase of \$26,070,655; and \$168,034,356 to Westchester County, an increase of realty assessment of \$73,640,727. Of the total assessed value of personal property, \$380,217,023 is in New York, an increase of \$5,241,261; in Kings, \$33,688,721, an increase of \$6,152,087; in Queens, \$4,336,643, an increase of \$1,864,193; in Richmond, \$1,628,709, an increase of \$1,513,484; in Suffolk, \$5,421,543, an increase of \$3,626,958; and in Westchester County \$24,057,229. The total increase in assessable values was \$413,130,707, as compared with \$138,272,791 for the year previous.

Legislative Session.—The regular session of the Legislature began on Jan. 5, 1898, and continued until March 31. As elected, the Senate consisted of 85 Republicans, 14 Democrats, and 1 Independent Republican, and the Assembly of 79 Republicans,

68 Democrats, 2 Independent Republicans, and 1 National Democrat. Timothy E. Ellsworth was continued as President *pro tem.* of the Senate, and James M. E. O'Grady was chosen Speaker of the Assembly. The Legislature passed 849 bills, of which 676 were approved by the Governor.

By far the most important bills were those authorizing the appointment of a commission to investigate the expenditure of \$9,000,000 on the canals and the consideration of other matters affecting the canals before the Legislature, and extending the time of the Canal Investigation Commission to July 1, 1898, to report to the Governor and allowing the Governor to extend it until Aug. 1, 1898.

Other measures enacted were:

Authorizing the Governor to appoint a commission of five to inquire into the expediency of revising the tax laws.

Providing that within thirty days after this act takes effect the Governor shall appoint a commission of five persons to examine into the commerce of New York, the cause of its decline and the means of its revival, together with a summary of conclusions to be drawn therefrom, and to suggest such legislation as they deem advisable relating thereto.

Amending the town and election law to permit biennial town elections in autumn, and providing that the Board of Supervisors of any county may, by resolution adopted at an annual meeting of such board, fix a time when the biennial town meetings in such county shall be held, and such time, when so fixed, shall not be changed for the period of four years.

Authorizing cities of the first and second class, in the discretion of those officers or bodies of such cities that have charge of the appropriation of the public funds, to purchase works of art, which must be the production of professional artists who are citizens of the United States.

Authorizing cities of the third class to expend \$200 annually for a Memorial-Day observance.

Legalizing assessments made on the estate of a decedent, instead of on his personal representatives.

Authorizing executors and trustees to acquire or exchange lands for certain purposes.

Providing that an adopted child to receive, free of taxation, a bequest of property from a foster parent, must have been adopted before its fifteenth year, and the relationship must have existed for at least ten years.

Providing that all investments of money by a trust company chartered by a special act prior to May 18, 1892, shall be at its sole risk, and that its capital stock and property shall be liable, with the exceptions provided in the general law governing trust-company investments.

Amending the banking law to permit savings banks to invest in the first-mortgage bonds of any railroad corporation of this State the principal part of whose railroad is located within this State.

Providing that insurance companies organized exclusively for the purpose of insuring cheese factories and creameries may extend their business to any number of counties, not exceeding one county for each \$100,000 of insurance in force.

Revising the military code.

Amending the public-health law, to provide that every practitioner of dentistry must display in a conspicuous place upon the house or in the office wherein he practices his full name. If there are more chairs than one in any office, or "dental parlor," the name of the practitioner using each chair must be displayed on or by said chair in plain sight of the patient.

Providing that any person who represents himself or herself to be a member of, or who claims to represent, a labor organization which does not exist

within the State at the time of such representation, or who has in his or her possession a credential, certificate, or letter of introduction bearing a fraudulent seal, or bearing the seal of a labor organization which has ceased to exist, and does not exist at the time of such representation, and attempts to gain admission, by the use of said credential, certificate, or letter of introduction, as a member of any convention, or meeting of representatives of labor organizations of the State, shall be guilty of a misdemeanor.

Providing that any firm, person, corporation, or association of persons, or any employee of such or any of such, who in the newspapers or other periodicals of this State, or in public advertisements, or in communications intended for a large number of persons, knowingly makes or disseminates any statements or assertions of facts with respect to his, its, or their business affairs concerning the quantity, the quality, the value, the price, the method of production or manufacture, or the fixing of the price of his, its, or their merchandise or professional work; or the manner or source of purchase of such merchandise; or the possession of awards, prizes, or distinctions; or the motive or purpose of a sale, intended to have the appearance of an advantageous offer, which is or are untrue or calculated to mislead, shall be guilty of a misdemeanor.

Providing that no printing or photo-engraving shall be done in any State Prison, Penitentiary, or reformatory for the State or any political division thereof, or for any public institution owned or managed and controlled by the State or any such political division, except such printing as may be required for or used in the penal and State charitable institutions, and the reports of the State Commission of Prisons and the Superintendent of Prisons, and all printing required in their offices.

Erecting the new County of Nassau out of, the three eastern towns of Queens County not included in the borough of Queens.

Authorizing Cornell University to establish branch departments in any part of the State.

Authorizing the establishment of a college of forestry at Cornell University and appropriating \$10,000 therefor. The trustees of the university are authorized to purchase, with the consent of the State Forest Preserve Board, not more than 30,000 acres in the State park in the Adirondacks, for the purpose of establishing the proposed college.

Requiring school authorities to purchase a United States flag and display it on every school building, and directing the State Superintendent of Public Instruction to prepare a salute to the flag for the opening of each day.

Changing the corporate name of the Trustees of Scenic and Historic Places and Objects to the Society for the Preservation of Scenic and Historical Places and Objects, and changing the number of trustees.

Appropriating \$55,000 of money collected from racing associations for distribution among agricultural societies.

Providing that if it is not practicable to change a railroad crossing within a city from grade, or to close and discontinue the same, the opening of an additional crossing for the division of travel going from the grade crossing is permitted.

Authorizing the New York Central, Delaware and Hudson, West Shore, and Boston and Albany railroads to construct a union railway station in Albany, to cost more than \$1,000,000.

Compelling all bicycles and similar vehicles to have a lighted lamp in use in any public highway or street between the hours from sunset to sunrise, limiting the rate of speed to eight miles an hour, and forbidding riding upon sidewalks or footpaths.

Placing the limit on the size of bass at 10 inches instead of 8, and restricting the number that one or more persons may take in a day.

Prohibiting the killing of deer for three years in the counties of Ulster, Greene, Delaware, and Sullivan.

Shortening the season for the killing of quail fifteen days, and the possession after they are killed to thirty days.

Making it a misdemeanor to spray fruit trees, while in blossom, with any poisonous substance.

Providing that all carcasses of calves shall be tagged with the age of calf when killed, owner's name, etc.

Making it a misdemeanor to place the words "sterling silver" on an article containing less than 925 one thousandth parts of pure silver.

Amending the penal code in relation to the manufacture or sale of spurious silverware.

The following laws pertaining to New York city were signed by the Governor:

Making Charter Day, May 4, a legal holiday in the Greater New York.

Authorizing New York city to appropriate \$10,000 for the relief of indigent sailors and soldiers and the families of those deceased.

Authorizing the city of New York to devote public-school houses to recreation and other public uses.

Providing that 5 per cent. of the excise moneys collected in New York city shall be paid into the Teachers' Retirement fund, and that the same shall be apportioned by the Board of Education among the several boroughs of the city of New York, as now constituted, in proportion to the number of teachers employed and the amount of salaries paid to them.

Authorizing Bellevue Hospital Medical College to hold real and personal property to an amount not exceeding \$1,000,000, and providing that it may mortgage, sell, and convey its property.

Authorizing the Board of Estimate and Apportionment to include annually, upon the requisition of the Department of Parks, in addition to the sum now provided, for the American Museum of Natural History, a further sum not exceeding \$30,000.

Allowing the American Museum of Natural History to take and hold by gift, devise, bequest, or purchase any real or personal property.

Compelling street surface railroads in Manhattan operating cars by cable or electricity to assign 2 conductors to each car between 6 and 9 A. M. and 12 to 2 and 4 to 8 in the afternoon. Nine hours are specified as a day's work.

Prohibiting the use of nets in the territory recently embraced in the Greater New York along the Harlem river.

A resolution was passed by the Legislature censuring Senator Murphy for his vote in favor of the free-silver resolution introduced by Senator Teller in the United States Senate.

Gov. Black convened an extra session of the Legislature for July 11, at 8 o'clock in the evening, when a message from him was presented, as follow:

"Unusual events have made it necessary to convene the Legislature in extra session. There are three subjects which demand attention, and I recommend them for legislative action: First, an appropriation to meet the expense of providing New York's share of troops required in the war with Spain. Second, a plan to enable voters absent from their homes in the military service to vote at the coming elections. Third, a provision which will better protect citizens who would vote according to law, and more certainly prevent and punish those who would vote otherwise."

The sessions were continued until July 16, during

which time the Legislature passed the following bills:

Providing for the appointment by the Governor of a supervisor of elections for a district larger than the city of New York. This measure, known as the Metropolitan Election bill, had for its object the removal of the control of the election from the New York City Police Board, which had become a partisan body by the removal of the Republican members by Mayor Van Wyck. This bill was promptly signed, and the nomination of John McCullagh as State Superintendent of Elections, made by the Governor, was immediately confirmed.

Appropriating \$500,000 for expenses of the National Guard and the Naval Militia.

Providing for the balloting of soldiers serving with the United States army.

Providing for absolute bipartisan representation on boards of election inspectors.

Law.—The annual report of the Attorney-General showed that during 1897 but 9 actions were begun against corporations for the purpose of dissolving them. More than 500 opinions were written on various questions referred to the Attorney-General for determination. For violation of the agricultural law 683 actions or proceedings were begun, and application was made asking that 26 other actions be begun. The number of actions in which the Attorney-General appeared for the people were: *Certiorari*, 23; *quo warranto*, 2; *mandamus*, 6; *injunction*, 2; miscellaneous, 57; and the enforcement of bond, 6. Papers have also been received in proceedings of voluntary dissolution of corporations, 138; in proceedings for the sequestration of corporations' assets, 61; in partition suits, 6; and in foreclosure of mortgages, 27. During the year 284 claims against the State were filed with the State Court of Claims, while 403 claims, aggregating \$682,323, were considered by the court, the award therein amounting to \$181,141.

He called attention to the adverse decisions of the courts on the antitrust law. The decisions, he said, have made the law nugatory, instead of simplifying practice and enabling an examination to be made for the purpose of determining the existence of a trust. "Outside of the legal questions under review," he added, "it may be said that the statute contains defects which probably make the law of very little utility."

He treated at length the tax question. In relation to threatened prosecutions against local assessors for alleged failure to assess property, he says: "Threats of criminal prosecution against officials whose duties are *quasi* judicial will accomplish nothing except to make the amount of equality more glaring in the future. There can be no question that the tax laws of the State require careful revision. A commission composed of men who have had judicial experience and who are free from bias could undoubtedly make recommendations which will be at once both practical and beneficial."

Banks.—These are under the supervision of a State superintendent, who is appointed for three years, and receives a salary of \$5,000. The incumbent during the year was Frederick D. Kilburn, whose term of office expires on May 9, 1899. The resources of the savings banks of the State at the close of the year ending June 30 were \$889,000,000, an increase of \$20,000,000 during the six months previous. During the year the sum of \$285,227,049 passed over the tellers' desks of savings banks in Greater New York. Of this sum, \$146,611,878 was deposits, and \$138,615,171 was withdrawn. The banks of Manhattan received \$109,212,163 on deposit, and paid out \$103,182,421. There are 370 building and loan and co-operative savings and loan associations, of which 86 are in New York County.

Of these, 44 are national and 317 local associations. The local co-operative associations showed total assets of \$37,985,642, with receipts of \$19,034,884, and cash on hand \$1,656,856. The number of shares in force Dec. 31, 1897, was 732,870, of which 189,029 were issued during the year, 197,867 being withdrawn during the same period. During the year 292 mortgages were foreclosed, \$5,820,264 was loaned on mortgage and \$804,909 on other securities, \$7,739,464 paid on withdrawals, dues, and profits, \$767,669 on matured shares, and \$1,152,355 of borrowed money. The expenses were \$194,024, and other disbursements \$348,175. In the "nationals" the same items show: Total assets, \$24,199,077; receipts, \$14,964,504; cash on hand, \$677,987. Shares in force Dec. 31, 1897, were 882,793, of which 375,935 were issued during 1896, while 318,349 were withdrawn. During the year 431 mortgages were foreclosed, \$5,043,498 was loaned on mortgage, \$629,136 on other securities, \$3,853,221 paid on withdrawals, dues, and profits, \$135,056 on matured shares, and \$279,190 of borrowed money returned. The expenses were \$595,147, and "other disbursements" \$1,225,926.

Insurance.—The care of the insurance interests of the State is under the charge of a superintendent, who receives \$7,000 a year, and holds office for five years. The present incumbent is Louis F. Payn, who was appointed on Feb. 11, 1897. His report shows that the assets of life insurance companies on Dec. 31, 1897, were \$1,394,051,344.68, an increase of \$105,727,002.94. Of this amount New York State companies have \$801,879,708.36; companies of other States, \$532,171,636.32. The aggregate of premium notes and loans show a decrease of \$29,061,785.17 during 1897, while deferred and uncollected premiums have decreased \$142,866.83. The liabilities of the several companies, excepting \$9,740,500 of capital stock, are \$1,148,249,329.87. The increase was \$94,641,191.80. The liabilities of New York State companies as reported are \$687,020,233.06; companies of other States, \$461,229,096.81. The gross divisible surplus is: New York State companies, \$114,859,475.30; companies of other States, \$70,942,539.51; aggregate, \$185,802,014.81. The aggregate receipts of New York State companies were \$183,652,785.96, an increase over 1896 of \$13,620,599.65; other companies, \$117,615,393.22, making the gross receipts \$301,268,179.18, and the gross increase over the receipts of the preceding year \$21,895,072.39. The disbursements were \$205,866,393.05, an increase of \$6,693,094.23; \$92,688,305.50 was paid for claims, \$26,431,311.98 for lapsed and surrendered policies, \$18,425,197.25 in dividends to policy holders, \$739,553.80 in dividends to stockholders, \$31,252,634.33 for commissions, \$16,513,883.06 for salaries and medical examiners' fees and \$19,815,507.13 for miscellaneous purposes. This classification shows that \$137,544,814.73 was paid to policy holders, while the cost of management, including dividends to stockholders, was \$68,321,578.32.

Excise.—The collection of the excise dues is under the charge of a commissioner, who serves for five years and receives a salary of \$5,000. The incumbent during the year was Henry H. Lyman, whose term of office will expire April 1, 1901. His reports show that the total amount received for liquor-tax certificates, transfers, and fines during the fiscal year ending Oct. 1, 1898, was \$12,640,718.01; county treasurers' fees, \$60,277.31; net balance for fiscal year, \$12,580,440.70. Of this amount the State received \$4,216,278.24; towns and cities received \$8,364,162.46. The total number of liquor-tax certificates of all kinds issued were 31,499; number of certificates in force Oct. 1, 27,897; total number of certificates surrendered and canceled for

rebate, 4,026. The rebates paid were \$815,988.86, and expenses of the department \$264,317.94. In the boroughs of Manhattan and Bronx the report shows that the number of certificates in force on Oct. 1 was 7,556. Also that the total amount received from the issue of certificates, transfers, and fines was \$5,747,864.35; rebates paid, \$306,233.47; net revenues, \$5,441,630.88; city's two-thirds share of same, \$3,627,753.92; State's one-third share, \$1,813,876.96; on the basis of the equalization table of 1898, prepared by the State Board of Assessors, the city has benefited by a reduction in State taxes, due to the State excise revenue, \$1,880,545, making a total benefit to the city's revenue of \$5,458,298.92, showing a gain to the city from the State treasury over and above what it pays to the State amounting to \$16,668.04.

Education.—This department is under the supervision of a superintendent, whose term of office is three years, and who receives a salary of \$5,000. The incumbent during the year was Charles R. Skinner, whose term of office expired on April 6, when he was reappointed for a new term. His report shows that the total number of children of school age (five to eighteen) was 1,663,949, an increase of 17,091. Of this number 1,113,899 were in the cities, an increase of 47,829, and 555,050 in towns, a decrease of 30,738. The average daily attendance was 820,254, an increase of 48,200. The whole number of teachers employed was 34,385, an increase of 565 in one year and of 3,060 in twelve years. There was expended for teachers' salaries \$14,183,685, an increase of \$564,456. Of this expenditure the cities paid \$9,158,205, an increase of \$483,522, and the towns \$5,025,480, an increase of \$80,936. The average annual salary of teachers was \$495, an increase of \$8. The State paid in teachers' quotas to the 3,090 small districts, at \$100 each, \$309,000. Estimating an average attendance of five scholars in each district the State pays \$309,000 for the education of 15,450 pupils, or an average of \$20 a pupil. The total expenditure for public schools was \$26,689,856, an increase of \$3,516,026. The cities spent \$19,152,644, an increase of \$3,610,573. The towns spent \$7,537,212, a decrease of \$94,547. There was expended for schoolhouses, sites, furniture, and repairs \$8,415,573, an increase of \$2,588,237. The cities expended \$7,226,700, an increase of \$2,810,645; the towns expended \$1,188,872, an increase of \$228,407. The value of schoolhouses and sites was \$66,077,600, an increase in one year of \$5,744,474. In cities this value was \$49,784,983, a gain of \$5,883,909. In the towns the value was \$16,292,617, a decrease of \$139,435.

According to the Regents' report, the number of teaching institutions in the university has increased to 688. The universities, colleges, professional and technical schools remain the same in number, while the incorporated academies have fallen from 128 to 119. In these institutions there are faculties with a total of 3,775 men and 2,671 women, and the total number of students is 43,146 male and 38,325 female. The net property has increased to \$87,460,783, while the expenditures reached \$9,055,572.

Charities.—This interest is under the care of a board, whose annual report is prepared from the sworn statements filed by the treasurers or other responsible officers of the charitable institutions, societies and associations subject to the board's supervision. The real and personal property of these institutions, societies, and associations is estimated to have a value of \$103,384,554.21, of which \$77,455,064.20 is real estate and \$25,929,490.01 personal property. The receipts of the institutions aggregate \$23,100,880.50, of which amount \$9,606,136.34 came from the State, counties, and cities, while

\$13,494,744.16 was received through the medium of personal benefactions. The total expenditures for the year amounted to \$21,448,362.03. The number of inmates in the institutions was, on Oct. 1, 1897, 74,664. The tables further show that the number of inmates received and cared for during varying periods of time during the year aggregated 269,147. But these were not all that received charitable assistance, the tables also showing that in the dispensaries 1,523,699 persons were treated practically free of charge, the number of prescriptions dispensed being 2,257,075. Also general outdoor relief was given by superintendents and overseers of the poor, relief societies, missions, and other charities to 758,609 persons, making the number relieved by institutions (including hospitals and dispensaries), societies, associations, and public officials aggregate 2,551,455.

Canals.—The statement made toward the close of 1896 by State Engineer Adams, that the amount of \$9,000,000 appropriated for the improvement of the canals was insufficient, and that at least \$7,000,000 additional would be required, led to a general feeling that mismanagement had occurred in the office of the Superintendent of Public Works. Soon after the convening of the Legislature, Gov. Black, in a special message, transmitted the following communication:

"The appropriation of \$9,000,000 voted by the people at the election of 1895 for improving the canals is insufficient to complete the work. Another large sum will be required. The authority for the second appropriation should be no less than that by which the first was made."

The communication further suggested that a commission be appointed to examine the "work already done or contracted for, and estimates prepared for that which may be necessary to complete the undertaking." The Governor called attention to the fact that he could not appoint "a committee having the necessary powers unless authority is conferred on him by the Legislature." A bill authorizing such action was passed, and the following commission was appointed: George Clinton, chairman; Smith M. Weed, Darwin R. James, Frank Brainerd, A. Foster Higgins, Franklin Edson, and William McEchron. The commission was directed to examine and report on the work of enlarging and improving the Erie, Champlain, and Oswego canals. The commission began its work in the latter part of March, with E. P. North as consulting engineer and Lyman E. Cooley as advisory engineer. Nearly all the members visited Albany, Syracuse, Rochester, Buffalo, and intermediate points, and personally inspected portions of the canals, besides taking testimony. A voluminous report was submitted to the Governor on Aug. 1, in which the commission said that large sums had been expended in unnecessary advertising in the interior of the State; also that \$1,000,000 or more had been expended "unwisely" in various ways; and that certain accounts for payments to contractors for earth and rock filling had been manipulated. The evils of the existing dual system of keeping the accounts of the Public Works Department were pointed out. The commissioners examined 69 contracts for work, and the engineers carefully examined every foot of the new work. Several recommendations were given in the report, and the members voted as a unit on every point. They were unanimous in suggesting that political methods should be eliminated so far as possible from the management of the State canals, and they were also unanimous in recommending that sufficient additional appropriations be made to complete the work of putting the canals in the best possible condition. The report emphasized strongly the importance of the canals to the commercial in-

terests of the State. The report of the commission was transmitted by the Governor to the Attorney-General, with a request for its examination in order to determine "whether judicial proceedings should be instituted against any of the parties referred to in the testimony or report." At the request of the Attorney-General, Judge Edwin Countryman was named as special counsel to aid him in examining the documents submitted. Subsequently State Engineer Adams presented to Gov. Black a statement concerning those portions of the report that reflected on his office, in which he characterized the work of the commission as "cruelly unjust, unfair, and unwarranted under the circumstances." Superintendent of Public Works Aldridge commented on the report, saying that "the findings of the commission are not warranted by the testimony or the facts," and that "what were mere rumors and stories of mismanagement, and which were denied under oath, are reported as findings." Finally Judge Countryman, on Nov. 30, reported that the conclusions of the commission were warranted by the testimony, and that both State Engineer and Surveyor Adams and the Superintendent of Public Works either have committed or permitted acts which should be investigated by a grand jury. Mr. Aldridge at once asked that he "be relieved from the performance of the duties of my office until such time as my responsibility for alleged wrongdoing may be judicially determined." Accordingly, on Dec. 2 he was suspended from office by the Governor. The official date for closing the canals this year was Dec. 10, the first clearing having occurred on May 4.

Fisheries.—The commissioners in charge of this department are Barnet H. Davis, Edward Thompson, William R. Weed, H. S. Holden, and Charles S. Babcock. During the year 667,325 fingerlings and yearlings of brook, brown, rainbow, and lake trout were planted, in addition to the millions of fry. The planting of the output of the hatcheries during the year was: Brook trout, 3,879,402; brown trout, 991,801; rainbow trout, 144,800; lake trout, 2,813,983; landlocked salmon, 2,054; steel-head salmon, 14,508; Swiss lake trout, 4,200; shrimp, 20,000; whitefish, 21,680,000; smelt, 45,000,000; ciscoes, 14,500,000; frostfish, 10,600,000; tomcods, 44,675,000; shad, 10,118,000; wall-eyed pike, 49,405,000; muscalonge, 3,035,000; lobsters, 6,896,420; and black bass (Oswego), 89,000. There were successfully prosecuted 316 cases for violation of the fisheries, and game, forest law, resulting in a recovery by the people of \$10,728. Twenty-seven persons were convicted and sentenced to the Penitentiary or county jail, while many others were convicted and sentence suspended. There were 82 applications for oyster lots, covering 672 acres, all of which were executed and filed. Sixty-three leases of oyster lots were made, and 68 oyster lots of different sizes and shapes were located and surveyed, principally in Jamaica and Sheepshead bays.

Prisons.—These are under the care of a superintendent, who receives a salary of \$3,000. The incumbent at the beginning of the year was Austin Lathrop, who was succeeded, on April 17, by Cornelius V. Collins, who holds office for five years. The prison population on Oct. 1, 1897, was: State prisons (including female prison), 3,203; New York State Reformatory, 1,525; House of Refuge for Women, 408; penitentiaries, 3,768; jails, 4,366; total, 13,270. The total merchandise sales from the three State prisons for the first eleven months of 1897 were \$194,014.13, of which \$134,023.82 were made in August, September, October, and November. During the first eight months of the year, the period of greatest idleness, there was an increase of 7 cases of insanity in the State prisons, and of 4 cases in the penitentiaries; a total increase of 11

cases in a population of 6,971. These cases of insanity, it is claimed, were not due to idleness, because they occurred mostly among those who were employed, and were due to heredity, vice, and evil habits.

Insane.—The charge of the insane is in the care of a commission in lunacy, consisting of Peter M. Wise, Goodwin Brown, and Henry A. Reeves, who was succeeded by William L. Parkhurst. Their reports for the fiscal year ending Sept. 30 shows that there are nearly 21,000 insane in the New York State hospitals, all of whom, except those in private institutions, are now in well-organized and well-managed hospitals, with the advantages of curative treatment. While the hospitals have been greatly improved in every respect, the cost of administration has been largely reduced, the individual cost during the year being \$184.16—the lowest in the history of the State hospital system. Prior to 1893 the cost of caring for patients in the State hospitals averaged more than \$222 a year. The expenditures during the year were about \$600,000. In every department improvements have been made. A definite allowance has been made for the amusement and entertainment of patients, which very largely enter into their curative treatment. Dances and other forms of amusement are held each week in every hospital. These entertainments are greatly enjoyed by the patients, and are a positive economical advantage. The amount expended has been sufficient for the purpose—a little more than \$1 a year for each patient. The most gratifying feature is the rise of the recovery rate: In 1895-'96 it was 948, in 1896-'97 it was 951, while during the past year it gained nearly 10 percent, reaching 1,018. New building is rapidly going on, and soon all of the insane on Hart's and Blackwell's islands will be removed to comfortable quarters and surroundings. Another large group of buildings is about to be erected at the Manhattan State Hospital Farm for the Insane, on Long Island.

Labor Statistics.—This department is under the charge of a commissioner, who receives a salary of \$3,000. The incumbent during the year was John T. McDonough. The investigations of the bureau for 1897 were devoted to three subjects: First, the economic condition of organized labor; second, the ownership and operation of electric and power, gas and water plants; third, the agricultural conditions in the State. The data for the economic condition of organized labor were obtained by means of quarterly reports from labor organizations as to membership, total time of employment, and earnings of members during the quarter, the unemployed, rates of wages, and hours of labor. On March 31 927 organizations reported a total membership of 142,670; on June 30 975 unions reported a membership of 151,206; and on Sept. 30 1,009 organizations reported 167,454 members. As to idleness, the report shows that, on March 31, 43,631 members of unions were out of work; on June 30 the number was 27,378; and Sept. 30 23,230 were reported idle. The average number of days of work for each member during the first quarter was, for men, 53, for women, 63; during the second quarter it was 69 for men and on 57 for women; while for the third quarter it was 67 for men and 66 for women. The average earnings for each member of the unions were, in the first three months, \$155.06 for men and \$85.63 for women; during the second three months \$159.12 for men and \$81.39 for women; and for the three months closing with September \$174.40 for men and \$91.80 for women. As to the ownership and operation of electric and power, gas and water plants, replies to inquiries were received from 97 electrical com-

panies, 26 combined electric-light and gas, 2 combined electric-light and water, 61 gas, and 96 water companies; also from 4 electric-light, 5 combined electric-light and water, and 71 water-supply plants—owned by municipalities. The report shows that only the electric-light and power plants have appreciated in value, to the extent of 12 per cent., while all other plants have depreciated from 5 to 27 per cent. The highest average salaries paid are those of the gas plants, which average \$1,260.70 each. The highest wages paid are those by electric-light and power plants, averaging \$672.47 each. The lowest salaries average \$459.25 a year each for eight officers and employees in the employ of two combined electric-light and water plants, and the lowest wages earned are by the employees of public water plants, who receive an average of \$364.80 each a year. The cost of product and selling prices of electric light and power, gas, and water are variously reported. For the first-named the lowest cost reported is 2½ mills an ampère, and the maximum figure is 10½ mills an ampère. The minimum monthly charge for an arc lamp to customers supplied in cities on the contract system is \$6, while the rate for similar services is \$3 where the plant is owned by companies. The highest figure (\$10.41) is returned by a New York corporation. The monthly charge for incandescent light ranges from 40 cents to \$1.50. Schedule prices for municipal arc lights are from \$6 a month to 50 cents a night. The cost of producing gas ranges from 31½ cents to \$1.49 for 1,000 cubic feet, the average for 26 establishments being 52½ cents for 1,000 feet. The highest selling price of manufactured gas used for lighting is reported as \$2.50 cents for 1,000 feet. The cost of producing 1,000 gallons of water in reservoirs ranges from 2½ cents to 10 cents. With reference to agricultural conditions, the report points to the serious feature presented by the rapid and unprecedented depreciation in the market value of farms—represented by the owners themselves to range from 50 to 75 per cent. during the past six years. The State within the past ten years has expended \$3,309,503.07 to promote the interests of agriculture, and it is a disappointing fact that, as the expenditures for that object increased from year to year, the farming industry and the value of farms seemed to decline in a greater ratio.

National Guard.—With the beginning of the year came the resignation of Gen. Louis Fitzgerald, after forty years of service. On Feb. 9 Charles F. Roe was made major general of State National Guard and given command of the State troops.

The following order was issued by the Adjutant General: "The brigade organization known as the First Brigade is hereby discontinued, and the officers of the brigade staff are rendered supernumerary. The organization comprising at present the First Brigade, now discontinued, is hereby formed into two brigades, the First and Fifth. The new First Brigade will consist of Squadron A, First Battery, Ninth, Twelfth, and Twenty-second Regiments. The new Fifth Brigade will consist of the First Signal Corps, Second Battery, Seventh, Eighth, Sixty-ninth, and Seventy-first Regiments."

Pending the enactment of the revised military code the war with Spain occurred, and in consequence it was not until in December that the appointments of the following officers on Gen. Roe's staff were made, when Lieut.-Col. N. B. Thurston was appointed inspector of small-arms practice, with the rank of colonel; Lieut.-Col. Kirby was made his assistant, with the rank of lieutenant colonel; Inspector-Gen. Hoffman was appointed plain inspector with the rank of colonel; and William Carey Manger was made assistant inspector.

Gov. Black, on March 31, addressed the following message to the Legislature:

"Events are now transpiring of so grave and general import that the attention of every enlightened people is fixed upon our own. The crisis which our National Government now meets involves those deep considerations which affect the future of the race. To aid that Government by approval and support, to sustain its hand when raised for justice and fair play, is the duty of every State. No hour has ever been so full of peril that New York has faltered while it passed. Because of her past history and her present greatness, she should be the first to understand the meaning of "to-day." After long reflection, and with an earnest desire to do that which ought to be done, and to refrain from that which ought not to be done, I recommend that, before you adjourn, you take such action as your wisdom shall decide upon to provide against such urgent needs as the future may disclose."

Promptly on receipt of this message the following bill was passed by the Legislature and signed by the Governor:

"The sum of \$1,000,000, or so much thereof as may be necessary, is hereby appropriated for the purpose of defraying the expenses of the National Guard and Naval Militia of this State and volunteers furnished by the State, or either of them, when called into service for the public defense on the request or requisition of the President of the United States; but no part of the money hereby appropriated shall be expended unless the Governor shall certify that in his opinion there is a necessity for using the same or a portion thereof, and in such case the same shall be paid by the Treasurer on the audit and warrant of the Comptroller."

A call was issued to the Governors of the States for volunteers on April 23 by President McKinley, and the quota that came from New York was 20,022.

Railroads.—This department is cared for by three commissioners, each of whom serves for five years, and receives a salary of \$8,000. Those holding office during the year were Ashley W. Cole, George W. Dunn, and Frank M. Baker. The commission reports that the number of passengers carried by the steam surface railroads for the year ending June 30, 1898, was 149,253,259, a decrease of 21,021,144. The gross earnings of steam surface railroads were \$9,797,599.10 in excess of the gross earnings for the year previous. The operating expenses were \$7,409,313.43 in excess of those for the preceding year, making the net earnings from operation \$2,388,285.67 in excess of the net earnings from operation in 1897. Accidents on steam railroads involving loss of life or injury to persons aggregated 2,207, in which 700 persons were killed and 1,507 injured. The total number of passengers carried by the elevated roads in New York city was 227,776,552, a decrease of 1,019,129. The number carried by the elevated roads in Manhattan and Bronx was 183,360,846, an increase of 395,995. The number carried by the elevated roads in Brooklyn was 44,365,706, a decrease of 1,465,124. The street surface railroads of Manhattan and Bronx carried as passengers 456,963,753, including "transfers," an increase of 57,538,010. The number carried in Brooklyn, including some carried in Queens, was 217,410,612, including "transfers," an increase of 17,224,793.

Forest-Preserve Board.—In compliance with Gov. Black's recommendations, the Legislature appropriated \$1,000,000 for the preservation of the Adirondack Park. In his message attention was called to the fact that in the proposed park, which should belong exclusively to the State, the State owned but 661,000 acres out of a total area of 2,800,000 acres. He said that 1,250,000 acres were owned

by lumbermen, and were therefore subject to fire, axe, and devastation, all of which were progressing fast. The commission, consisting of Lieut.-Gov. Timothy L. Woodruff, State Engineer Campbell W. Adams, and State Forestry Commissioner Charles H. Babcock, in their first report, showed that the board purchased, within the confines of the Adirondack Park, 250,117 acres, making the State's total holdings 911,117 acres. The purchases were made at a cost of \$921,699, an average price of \$3.68 an acre. Very nearly all the land so purchased is virgin forest land, surrounding the lakes, the protection of which insures the water supply of the Hudson valley and the Erie Canal. Although the act under which the board was created expressly conferred the power to condemn lands and appropriate them without the consent of the owners, it has been unnecessary to resort to that remedy, except in two cases. More than \$2,000,000 worth of Adirondack lands are still in the market, which have either been offered for sale or can be bought.

Historian.—The care of the historical records is under the charge of the State Historian. The incumbent during the year was Hugh Hastings, who in his report announced the publication of a volume of military papers of Daniel D. Tompkins, which gave much information concerning the part taken in the War of 1812 by New York. It also announced that the work of compiling the colonial muster rolls from 1664 down to the outbreak of the Revolutionary War has been concluded. But few rolls of troops between 1765 and 1775 were found, which is due to the fact that when Gov. Tryon retired to the British ship "Asia," in May, 1775, he took with him all the colonial records, and subsequently shipped many of them to London, including probably many of the colonial muster rolls. By dint of considerable correspondence, Mr. Hastings succeeded in obtaining the list of names of New York State men who participated in the first infantry fight of the civil war; the names of the 100 men of the Eighty-ninth New York who volunteered to cross the Rappahannock at the battle of Fredericksburg, Dec. 11, 1862, and drove out the Confederate sharpshooters who had prevented the construction of the pontoon bridges; a list of the members of Company D, One Hundred and Sixty-first Regiment, who were aboard the United States gunboat "Sachem" on the Sabine Pass expedition; and a list of the men of the One Hundred and Sixty-ninth New York, who specially distinguished themselves in the assault on Fort Fisher, Jan. 15, 1865. With a view for the better preservation of army records, the State Historian suggests the creation of a new officer for every regiment, who shall be known as the "regimental recorder."

State Capitol.—The Capitol was not finished at the end of the year. In July State Architect Perry, by reason of lack of funds, was compelled to dismiss his force of draughtsmen. Mr. Perry had charge of the erection and alteration of all the State institutions, and to carry on the work of his office an item for \$35,000 was inserted in the supply bill, which was cut down to \$20,000. The original sum was the minimum with which the work planned and ordered by the Legislature could be carried on. Some changes in connection with the artistic work of the grand stairway in the Capitol building were decided on during the year. One of the features of the stairway is the carving of heads in the caps of the columns, and it was determined to select four women as types representing women in four distinct spheres, and directions were given that their portraits should be carved in the stairway caps. The four women chosen were "Capt." Molly Pitcher, Harriet Beecher Stowe, Clara Barton, and Susan B. Anthony.

State Library.—This is under the care of the Regents of the University of the State of New York, and the librarian is Melvil Dewey. His report for 1898 shows 217,933 volumes in the State library, besides 43,525 volumes in the traveling libraries; a total of 261,458 volumes, exclusive of duplicates. Of the 9,999 volumes added to the State library proper, 4,117 were given, 2,812 were acquired by exchange and by binding serials and pamphlets, while only 3,070, or about one third of the accessions, were bought. Of the 21,366 new pamphlets, 20,706 were gifts, 609 exchanges, and 51 purchases.

Niagara Reservation.—The commissioners appointed to the charge of this reservation met on May 19, and organized by electing Andrew H. Green as their president. The work outlined by them included the building of a stone arch bridge between Goat and Sister islands, to replace the wooden and iron suspension bridge now connecting them. It was also proposed to undertake extensive plantations of trees and shrubs on the shores of the reservation, and particularly on Bath island, with a view to restoring the original woodland effect which is so peculiar to the region, and makes it specially attractive.

Omaha and Paris Expositions.—On Feb. 26 Gov. Black appointed as delegates to represent the State at the Trans-Mississippi and International Exposition, held in Omaha from June to November, 1898, the following: Chauncey M. Depew, John Jacob Astor, G. Creighton Webb, Henry B. Herbert, Abel E. Blackman, Charles N. Stow, Jacob Amos, and John C. Graves.

The following honorary commission to represent the State at the Paris Exposition in 1900 was appointed by Gov. Black on Dec. 24: First Judicial District, Emil Twyffort, New York; Second Judicial District, Ludwig Nisson, Brooklyn, Norton P. Otis, Yonkers; Third Judicial District, Urban Weldon, Cohoes; Fourth Judicial District, Clarkson C. Schuyler, Plattsburg, Mrs. Mary Harrison McKee, Saratoga; Fifth Judicial District, Henry A. Phillips, Lowville, Thomas R. Proctor, Utica; Sixth Judicial District, Mrs. Nanny W. Metcalf, Owego; Seventh Judicial District, Lamotte M. Blakely, Lyons; Eighth Judicial District, William L. Marcy, Buffalo, George E. Spring, Franklinville. The commission will serve without compensation. Its duties are to encourage and promote a complete exhibit of the artistic, commercial, industrial, agricultural, and other interests of the State at the Exposition; to provide for the comfort and convenience of the citizens of the State in attendance; and to make arrangements for the exhibits made by the citizens of the State. The commission met at Albany on Dec. 27, and organized by the election of a president and vice-president. It is authorized to appoint a secretary.

Political.—On Sept. 27 a Republican State Convention was held in Saratoga Springs. Benjamin B. Odell, Jr., chairman of the State Committee, called the convention to order, and named Congressman Sereno E. Payne as temporary chairman. For the permanent organization Horace White was made chairman. Concerning national issues the platform said:

"We congratulate the country upon the conclusion of the war with Spain. It was not undertaken for conquest, but for the sacred cause of humanity and for the just protection of American interests.

"We have abiding confidence that the President will conclude this peace upon terms that will satisfy the conscience, the judgment, and the high purpose of the American people. We have assumed the responsibilities of victory, and wherever

our flag has gone there the liberty, the humanity, and the civilization which that flag embodies and represents must remain and abide forever.

"In the interest of American labor and commerce, we believe that American products should be carried in American ships, and we favor the upbuilding of an American merchant marine."

On State issues it said:

"State taxation of the liquor traffic has steadily grown in popular favor. There has been collected under this law, during its brief period of existence, more than \$33,000,000, which has been applied to the reduction of State and local taxation, and has thus relieved the earnings and the savings of all the people of the State.

"New York is foremost of the States in the Union in caring for the interests of labor. Factory inspection has been extended. The prevailing rate of wages has been enforced upon all public-works. Railroad corporations have been compelled to adopt a ten-hour law. The law securing the weekly payment of wages has been extended to include all joint-stock associations, and its violation has been made a crime. The right to use labor labels has been secured to labor organizations. Elaborate provisions have been enacted for the security of employees in factories and stores and for their better treatment. The mechanic's lien law has been amended so as to prefer all labor for daily and weekly wages before all other claimants, without reference to the time when such laborers file their notices of lien. Subletting of contracts has been absolutely forbidden without the written consent of the responsible awarders. Qualified engineers are now alone permitted to run stationary engines in New York city."

In making nominations for Governor, the names of Frank S. Black and Theodore Roosevelt were presented, and the ballot showed a preference for Roosevelt, who received 753 votes against 218 for Black. The remainder of the ticket named was: Lieutenant Governor, Timothy L. Woodruff; Comptroller, William J. Morgan; Secretary of State, John T. McDonough; State Treasurer, John B. Jaekel; State Engineer, Edward A. Bond; and Attorney-General, John C. Davies.

Subsequently a new State committee, consisting of one member from each of the 34 congressional districts, was formed, and Benjamin B. Odell, Jr., was chosen as its chairman.

The Democratic State Convention was held in Syracuse on Sept. 28-29. It was called to order by Elliot Danforth, chairman of the State Committee, who announced George M. Palmer as temporary chairman. The convention adjourned over night and a permanent organization was effected, with Frederick C. Schraube as chairman. A platform was adopted containing the following:

"We rejoice that the Democracy has been connected with every honorable and creditable step in the war, and with nothing that is dishonorable or discreditable. The scandalous abuse by the President of his power of appointment in scattering army commissions among inexperienced and incompetent civilians, as reward to personal favorites, and almost to the exclusion of experienced officers in the service, is largely accountable for the fearful sufferings and the appalling loss of life among the gallant soldiers, that have brought disgrace upon the Administration and a sense of shame to the nation.

"Reform in the canal management of the State is the supreme issue of the hour. No squandering of public moneys, no more millions to be stolen, wasted, or needlessly expended, as reported by a Republican investigating commission to have occurred with the \$9,000,000 canal improvement fund; all public contracts to be fairly and honestly awarded

to the lowest *bona-fide* bidder; no special privileges to pet surety companies favored by political influence.

"We demand the restoration of the National Guard to the high standard of efficiency which under Democratic Governors was long enjoyed; no more "Tillinghastism" incompetency or red tape in the Adjutant General's office; a capable Adjutant General and a reorganization of the National Guard are imperatively demanded.

"We demand just and equal taxation; no tax-dodging. We denounce all attempts to evade the burdens of taxation upon personal property by pretended changes of residence or otherwise under the Constitution and laws of our State."

As candidates for the governorship, the following names were presented: James K. McGuire, John B. Stanchfield, Robert C. Titus, and Augustus Van Wyck; and the result of the ballot was: Van Wyck, 851; Stanchfield, 41; Titus, 39; and McGuire, 19 votes. The remainder of the ticket was as follows: Lieutenant Governor, Elliot Danforth; Secretary of State, George W. Batten; Comptroller, Edward S. Atwater; Treasurer, Elliott P. Norris; Attorney-General, Thomas F. Conway; and State Engineer and Surveyor, Martin Schenck.

A new State committee, consisting of one member from each of the 50 senatorial districts, was formed, and Frank Campbell chosen as its chairman.

Owing to the failure of this convention to reaffirm the National platform adopted by the Democratic party in Chicago, in 1896, certain Silver Democrats met in New York city on Sept. 30, and under the chairmanship of Henry M. McDonald, President of the New York Bimetallic League, named the following ticket: Governor, Henry George; Lieutenant Governor, Elliot Danforth; Secretary of State, Gideon J. Tucker; Comptroller, John T. McDonough; Treasurer, H. C. Caton; Attorney-General, Ole F. Snyder; and State Engineer and Surveyor, James A. Lee. Subsequently Mr. George declined to serve, and Mr. McDonald was chosen to succeed him. There were also tickets in the field representing the Prohibition, Socialist-Labor, and Citizens' Union parties.

The election, on Nov. 8, resulted in the success of the Republican ticket, with pluralities ranging from 17,786 for Governor to 8,664 for Treasurer. The average total number of votes cast was 1,359,190, and of these Mr. Roosevelt received 661,707. Much delay in canvassing the final results was due to the soldiers' and sailors' vote. The State Board met on Dec. 29, and declared the Republican candidates elected. According to this report, 4,503 ballots were cast by the military, the preponderance of which was in favor of Mr. Roosevelt.

NEW YORK CITY. Government.—The city officials who held office during the year were: Mayor, Robert A. Van Wyck (salary, \$15,000); President of the Council, Randolph Guggenheimer (salary, \$5,000); Borough Presidents, Manhattan, Augustus W. Peters (salary, \$5,000), who died on Dec. 29, but his place was not filled till after the new year; Brooklyn, Edward M. Grout (salary, \$5,000); Bronx, Louis F. Haffen (salary, \$5,000); Queens, Frederick Bowley (salary, \$3,000); and Richmond, George Cromwell (salary, \$3,000), all of whom are Tammany Democrats and took office on Jan. 1, 1898. Also there are the following county officers: County Clerk, William Sohmer (salary, \$15,000); Sheriff, Thomas J. Dunn (salary, \$12,000 and half the fees); and Register, Isaac Fromme (salary, \$12,000), all of whom are Tammany Democrats and took office on Jan. 1, 1898.

Finances.—The conditions of the debts of the city of New York including the boroughs of Manhattan, the Bronx, Brooklyn, Queens, and Richmond, Jan. 1, 1899, is shown in the accompanying table:

A. FUNDED DEBT OF THE CITY OF NEW YORK AS NOW CONSTITUTED, ISSUED SUBSEQUENT TO JAN. 1, 1898.

1. Payable from the sinking fund of the city of New York under the provisions of section 206 of chapter 378 of the Laws of 1897....	\$17,966,817 24
2. Payable from the water sinking fund of the city of New York under provisions of section 10, Article VIII, of the Constitution of the State of New York, and under section 208 of chapter 378 of the Laws of 1897....	3,150,000 00
3. Payable from taxation....	8,179,665 59
4. Payable from assessments and the city treasury.....	868,424 08
	\$30,164,906 91

B. FUNDED DEBT OF THE CITY OF NEW YORK AS CONSTITUTED PRIOR TO JAN. 1, 1898, ISSUED PRIOR TO THAT DATE.*Boroughs of Manhattan and the Bronx.*

1. Payable from the sinking fund for the redemption of the city debt (first lien) under ordinances of the Common Council.....	\$1,865,900 00
2. Payable from the sinking fund for the redemption of the city debt (second lien) under the provision of section 213 of chapter 378 of the Laws of 1897.....	9,700,000 00
3. Payable from the sinking fund for the redemption of the city debt under the provisions of section 229 of chapter 378 of the Laws of 1897.....	112,180,394 70
4. Payable from the sinking fund for the redemption of the city debt under the provisions of section 1 of chapter 79 of the Laws of 1890....	9,823,100 00
5. Payable from the sinking fund for the redemption of the city debt No. 2 under the provisions of the constitutional amendment adopted Nov. 4, 1884, and of section 10, Article VIII, of the Constitution of the State of New York.....	41,977,000 00
6. Payable from taxation....	35,819,403 87
7. Payable from assessments and the city treasury.....	10,800,536 21
	221,916,333 78*

C. FUNDED DEBT OF CORPORATIONS IN THE BOROUGH OF BROOKLYN, INCLUDING KINGS COUNTY, ISSUED PRIOR TO JAN. 1, 1898.*City of Brooklyn, including Annexed Towns.*

1. Payable from the sinking fund of the city of Brooklyn under the provisions of chapter 488 of the Laws of 1860 and amendments thereto.....	\$8,697,000 00
2. Payable from the sinking fund of the city of Brooklyn under the provisions of chapter 572 of the Laws of 1880 and chapter 443 of the Laws of 1881.....	2,350,000 00
3. Payable from the sinking fund of the city of Brooklyn under the provisions of chapter 648 of the Laws of 1895.....	7,065,567 41
4. Payable from the water revenue under the provisions of chapter 396 of the Laws of 1859, and acts amendatory thereof and supplementary thereto....	16,800,749 76
5. Payable from taxation....	24,861,543 73
6. Payable from assessments....	6,150,614 00
<i>Kings County.</i>	
7. Payable from taxation....	14,575,392 83
	80,500,867 73

* Of this amount \$9,883,700 was originally issued as debt of the county of New York prior to the consolidation of the county and city of New York.

D. FUNDED DEBT OF CORPORATIONS IN THE BOROUGH OF QUEENS ISSUED PRIOR TO JAN. 1, 1898.

1. Payable from the special sinking fund of Long Island City for the redemption of revenue bonds under the provisions of chapter 782 of the Laws of 1895.....	\$342,000 00
2. Payable from sinking fund under the provisions of chapter 122 of the Laws of 1894.....	35,000 00
3. Payable from water revenue.....	751 500 00
4. Payable from taxation....	6,064,500 02
5. Payable from assessments.....	357,221 20
	\$7,550,221 22

E. FUNDED DEBT OF CORPORATIONS IN THE BOROUGH OF RICHMOND, INCLUDING RICHMOND COUNTY, ISSUED PRIOR TO JAN. 1, 1898.

Payable from taxation.....	\$3,136,798 20
	3,136,798 20
Total funded debt.....	\$343,269,127 84

II. TEMPORARY DEBT.

Issued in anticipation of taxes of 1898.....	\$7,600 00
Total bonded debt.....	7,600 00
	\$343,276,727 84

SUMMARY.

Total gross funded debt....	\$343,269,127 84
Less amount held by the commissioners of the sinking fund on account of sinking fund No. 1.....	\$76,215,866 68
Less amount held by the commissioners of the sinking fund on account of sinking fund No. 2.....	15,869,678 81
Less amount held by the commissioners of the sinking fund of the city of Brooklyn.....	6,970,746 38
The bonds held by the special sinking fund of Long Island City for the redemption of revenue bonds have not yet been approved and are not included in the above statement.....	99,056,391 87
Net funded debt.....	\$244,212,435 97
Revenue bonds.....	7,600 00
Net bonded debt.....	\$244,220,435 97

In the year bonds and corporate stock of the city were issued as follow: For public buildings, \$4,755,293.81; for public parks, \$2,355,050.38; for bridges, \$3,378,844.83; for repavement of roads and drives, \$1,072,740; for water supply, \$3,150; for docks, \$3,675,294.54; for condemnation of rear tenements, \$33,045.78; for street openings, \$2,696,548.50; for local improvements, \$868,424.08; special revenue bonds, \$8,179,665.59; a total of \$30,164,906.91. The tax rate for Manhattan and the Bronx was at the rate of \$2.01 for each \$100 of assessment. This was lower than that of 1897, which was \$2.10, and also lower than that of 1896, which was \$2.14.

Constitutional Limit of the City Debt.—The question of the limit of the city debt was agitated soon after Mayor Van Wyck took office, and the Comptroller was ordered to report on its condition. He presented, on April 22, an elaborate statement in which he showed that the assessed valuation of real estate in the former city of New York on Dec. 31, 1897, was \$1,787,186,791, and the net bonded debt, excluding revenue bonds of 1897 and deducting securities held by the sinking fund, was \$134,855,361.27, being \$39,863,317.83, less than 10 per cent. of the assessed valuation. By the consolidation effected by the charter there was added to the city territory, of which the assessed valuation of real estate was \$675,048,896 and the net bonded in-

debtredness was \$91,447,311.81, an excess of the 10 per cent. of \$23,852,422.21. The result of consolidation, therefore, was the creation of a city the net bonded indebtedness of which was \$16,010,895.62, less than 10 per cent. of the assessed valuation of its real estate. A summary of his figures shows:

ITEMS.	Former city.	New territory.
Net bonded debt.....	\$188,865,361 27	\$91,447,311 81
Contract liability.....	25,122,351 56	1,041,804 74
For lands acquired.....	37,765,813 06	182,339 72
For judgments.....	1,200,000 00	891,832 94
	\$202,943,525 89	\$93,563,289 21
Ten per cent. of assessed valuation of real estate.....	178,718,879 10	67,694,889 60
Excess over constitutional limit.....	\$24,224,646 79	\$25,968,399 61
Aggregate excess for new city on Jan. 1.....		50,193,246 40

Subsequently these figures were materially modified by opinions of the Corporation Counsel, which enabled him to exclude from statements of the city debt liabilities chargeable against the fund for street and park openings and certain contracts based on uncertain quantities of work to be performed, until, according to the Mayor's message presented at the beginning of the new year, "the excess of the city's indebtedness over its constitutional limit on Jan. 1, 1898, was found to be \$13,566,875.69."

Board of Estimate and Apportionments.—This body consists of the Mayor, the President and Secretary of the Department of Taxes and Assessments, the Comptroller, President of the Council, and the Corporation Counsel. The city tax budget for 1899 was passed by this body on Oct. 30, and was adopted by the Municipal Assembly on Nov. 15. It included the following items: The Mayoralty, \$63,755; Municipal Assembly and City Clerk, \$200,052; Department of Finance, \$779,394; interest on city debt, \$9,278,385; interest on bonds and stocks to be issued after Oct. 10, 1898, and in 1899, \$1,277,393; interest on revenue bonds of 1899, \$875,000; redemption of the city debt, \$9,412,950; installments payable in 1899, \$2,633,110; rents, \$291,761; borough officers, \$51,300; the Law Department, \$399,758; Board of Public Improvements, \$239,500; Department of Highways, \$2,520,099; Department of Sewers, \$787,479; Department of Bridges, \$406,522; Department of Public Buildings, Lighting and Supplies, \$3,617,804; Department of Water Supply, \$1,450,817; Department of Parks, \$1,729,235; Department of Public Charities, \$1,941,215; Department of Correction, \$704,065; Department of Health, \$1,110,538; Police Department, \$11,182,531; Bureau of Elections, \$615,065; total, Police Department, \$11,797,596; Department of Street Cleaning, \$4,575,800; Fire Department, \$4,443,664; Department of Buildings, \$523,265; Department of Taxes and Assessments, \$829,200; Board of Assessors, \$35,700; Department of Education, \$13,415,053; Coroner's Office, \$165,150; for library purposes, \$226,564; courts, \$967,500; charitable institutions, \$1,784,846; miscellaneous, \$4,990,513; grand total, city budget, \$83,710,793; New York County, \$6,961,101; Kings County, \$2,326,098; Queens County, \$403,806; Richmond County, \$118,283; total of counties, \$9,809,288; grand total, city and counties, \$93,520,082.

The total budgets for all boroughs of New York city for 1898 aggregated \$63,669,103.23. The budgets for 1899 therefore show an increase of \$29,850,978.80.

Taxes and Assessments.—These are under the charge of a board consisting of Thomas L. Feitner, President; Edward C. Sheehy, Arthur C. Salmon,

Thomas J. Patterson, and William Grell; office, 280 Broadway. They report the total valuations of real and personal property, as assessed for taxation in 1898, at \$2,365,490,372, against \$2,168,635,856 in 1897, showing an increase of \$196,854,516. The assessed valuation of real estate is \$1,856,467,923, against \$1,787,186,791 in 1897. The assessed valuation of personal property is \$509,022,449, against \$381,449,065, distributed as follow: Resident, \$325,892,478; non-resident, \$108,105,545; and shareholders of banks, \$75,024,426. The increase under the classifications of resident and non-resident is \$134,485,344. There is a decrease in the assessed valuation of the shareholders of banks of \$6,911,960, leaving the net increase \$127,573,884. Among the largest personal assessments were the following: William W. Astor, \$2,000,000; Russell Sage, \$500,000; Cornelius Vanderbilt, \$400,000; William K. Vanderbilt, \$400,000; Adrian Iselin, \$400,000; John Jacob Astor, \$250,000; Frederick W. Vanderbilt, \$200,000; George W. Vanderbilt, \$200,000; Andrew Carnegie, \$150,000; Robert Bonner, \$125,000; Caroline W. Astor, \$100,000; Morris K. Jesup, \$100,000; Joseph H. Choate, \$100,000; George Ehret, \$75,000; Jacob Ruppert, \$50,000; Theodore Roosevelt, \$50,000; and Henry Clews, \$50,000.

Surrogates' Court.—There are two surrogates in New York County, each of whom receives a salary of \$15,000, and serves for a term of fourteen years. The incumbents during the year were Frank T. Fitzgerald and John H. V. Arnold. There were 1,955 wills offered for probate in 1898, and of this number 1,726 were admitted to probate. Of the 123 wills contested, 104 have been decided. The surrogates heard 3,801 motions and held 336 hearings in will contests, rendering 2,953 decisions.

Public Improvement.—The Board of Public Improvements consists of the president of the board, the Commissioners of Water Supply, of Highways, of Street Cleaning, of Sewers, of Public Buildings, Lighting and Supplies, and of Bridges, each of whom is appointed for a term of six years. The president of the board receives a salary of \$8,000, and the other members \$7,500 each. According to a report presented toward the close of the year, there are in Manhattan nearly 400 miles of paved streets, and 136 miles of these are paved with asphalt, nearly all of which has been laid since 1889. The following shows to what extent the different kinds of paving material are in use: With specification granite, 156.04 miles; with square granite, 13.19; with specification trap, 42.66; with Belgian trap, 32.49; with sheet asphalt, 130.31; with block asphalt, 5.83; with wood, 0.08; and with macadam, 18.94; total, 399.54. The longest stretch of asphalt in Manhattan is on Eighth Avenue, and runs from Thirteenth to One Hundred and Fifty-fifth Street, more than 7 miles. In some places it is 48 feet wide, and in others 60 feet.

Shortly before the opening of the campaign certain documents prepared by the Commissioners of Accounts were presented to the Grand Jury by the District Attorney, in which it was charged that the Department of Public Works, by letting out contracts for the paving of the streets with asphalt, contrary to the requirements of the law, had caused large losses to the city. The charges were investigated and then dismissed by the Grand Jury, by a vote of 17 to 5. Much comment was elicited toward the end of the year by the fact that not a single new street improvement in the entire Borough of Bronx had been initiated during the year, although the cost of running the several departments, which were formerly embraced in one department, was much greater. The Commissioner of Street Improvements was paid a salary of \$5,000, and was an elective officer, responsible directly to the people.

The entire salary list of his office was about \$30,000, while the salary list now of the different departments amounts to more than \$75,000 a year, not to speak of the engineering and other forces which are distributed among the different departments and which were formerly under one head.

Parks.—This department is under the charge of three commissioners, one having jurisdiction in Manhattan and Richmond, one in Bronx, and one in Brooklyn and Queens, each of whom serves for six years and receives a salary of \$5,000. During 1898 the commissioners were: George C. Clausen, Manhattan and Richmond; George V. Brower, Brooklyn and Queens; and August Moebius, Bronx. The most important item of the year's work by this department was the opening of the Harlem Speedway on July 2. It is $\frac{3}{4}$ miles long, extending from One Hundred and Fifty-fifth Street, whence there is a down grade to the Harlem river, to Dyckman Street. The width of the Speedway varies from 100 to 150 feet. The roadway is from 52 to 95 feet wide, and the sidewalks from 10 to 20 feet wide. The surface of the roadway is macadam from One Hundred and Fifty-fifth Street to the first subway, and is then sandy loam to Dyckman Street. The road passes under both High Bridge and Washington Bridge to a point opposite Washington Heights, where it swings with an easy curve to Dyckman Street. A short distance beyond the old Jumel mansion there is an underground passage by which pedestrians may pass from one side of the drive to the other, and there are similar underground passages north of High Bridge and Washington Bridge. The walks on either side of the road are of asphalt or gravel. Just north of High Bridge the westerly walk is 20 feet higher than the driveway, and an excellent view can be had from this point of the horses speeding below. The spaces between the road proper and the sidewalks are filled with grass plots, and on these it is proposed to plant shade trees. In the building of the Speedway many difficult problems of construction were met with. In 1895 the mud far below the water level shifted, rupturing the masonry and causing 500 feet of the cribwork to move out of position. Thousands of tons of rock also fell upon the driveway from the side hills. The work of the contractors embraced the excavation of 475,000 cubic yards of earth and rock. One million cubic yards of filling material were used, and 750,000 cubic yards of mud were dredged out for the wall and cribwork. The total cost of the driveway has been \$3,075,000.

A new recreation pier at the foot of East Twenty-fourth Street, and an old one at the foot of Third Street, were opened on May 28. Also a recreation pier at the foot of East One Hundred and Twelfth Street was completed.

Zoological Park.—The development of this park is under the care of the New York Zoological Society, of which Levi P. Morton is president. Early in the year, the necessary \$100,000 having been raised by the society, the \$125,000 given by the city contingent upon the securing of the first-named sum became available, and the erection of buildings and other accommodations for animals was begun on Aug. 15. At the annual meeting it was announced that there are now under construction 4 buildings, 12 large dens for carnivorous animals, and other installations. The winter house for birds was receiving its roof, the cost of which, when completed with cages, is to be \$16,000. The reptile house was the most expensive building under construction, and its cost, when completely equipped with cages, was to be about \$40,000. It is intended that all these features shall be in readiness by the end of May, 1899. The society has expended in buildings and other installations \$16,977, and in

temporary roads, drainage, grading, forestry work, engineering, and maintenance, \$2,754; total, \$19,731. The total cost of improvements under construction is estimated at \$82,494. The treasurer reported the receipts to be \$116,070 and the total expenditures \$27,937, with a balance of \$88,133.75 in the treasury. From new memberships the society received \$4,100; from 15 life members, \$3,000; from 9 founders, \$45,600; from associate founders, \$5,950; from patrons, \$12,800; and from others, \$5,600. The membership is now 636.

Department of Health.—The collection of vital statistics is under the care of a board consisting of the president of the Board of Health, the health officer of the port, and three commissioners, one of whom must have been for five years a practicing physician. The officials in 1898 were as follow: Nathan Straus, who resigned early in the year and was succeeded by Michael C. Murphy, president; Dr. William T. Jenkins, Dr. John B. Cosby, health officer, Dr. Alva H. Doty, and the president of the Board of Police, Bernard J. York. The secretary of the board is Emmons Clark, and the office is in the Criminal Court Building. The vital statistics were as follow: Deaths under one year, Manhattan and Bronx, 10,165; Brooklyn, 5,587; Queens, 708; Richmond, 297; total, 16,757. Deaths under five years, Manhattan and Bronx, 15,571; Brooklyn, 8,431; Queens, 896; Richmond, 427; total, 25,325. Total deaths, Manhattan and Bronx, 40,354; Brooklyn, 21,853; Queens, 2,561; Richmond, 1,302; total, 66,078. Total reported births, Manhattan and Bronx, 53,358; Brooklyn, 21,395; Queens, 2,923; Richmond, 1,356; total, 78,932. Total reported marriages, Manhattan and Bronx, 20,860; Brooklyn, 7,129; Queens, 636; Richmond, 342; total, 28,967. Total reported stillbirths, Manhattan and Bronx, 3,203; Brooklyn, 1,888; Queens, 200; Richmond, 85; total, 5,376. Death rate per 1,000 living, Manhattan and Bronx, 19.70; Brooklyn, 18.26; Queens, 20; Richmond, 20.05; average, 19.21.

The principal causes of death were the following: Phthisis, 7,619; pneumonia, 7,527; diarrhoeal diseases, 4,845; Bright's disease and nephritis, 4,689; diarrhoeal diseases under five years, 4,355; heart disease, 4,090; bronchitis, 1,910; diphtheria, 1,461; whooping cough, 715; scarlet fever, 703; typhoid fever, 671; measles, 648; influenza, 369; cerebro-spinal meningitis, 356; croup, 317; malarial fever, 251; smallpox, 1; yellow fever, 1. Among the deaths by violence were the following: Accident, 2,317; suicide, 694; sunstroke, 548; and homicide, 116.

The estimate of the population made by this department is as follows: Manhattan and Bronx, 2,048,830; Brooklyn, 1,197,100; Queens, 128,042; Richmond, 64,927; total, 3,438,899.

Police.—This department is managed by a board of four commissioners appointed by the Mayor for a term of six years, each member of which receives a salary of \$5,000. The board during the year consisted of Bernard J. York, president; John B. Sexton, Thomas L. Hamilton, removed on May 21, and succeeded by Jacob Hess, and William E. Philips, removed on May 21, and succeeded on June 30 by Henry E. Abell. The chief of police on Jan. 1 was John McCullagh, whose appointment as acting chief was made permanent on Jan. 7, and who was retired on May 21. William S. Devery, deputy chief, was made acting chief on May 21, and full chief on June 30. The Central Office is at 300 Mulberry Street. The force on Dec. 31 consisted of a chief, 5 deputy chiefs, 10 inspectors, 72 captains, 324 sergeants, 88 detective sergeants, 361 roundsmen, 6,398 patrolmen, 153 doormen, 21 surgeons, 38 matrons, a superintendent of telegraphs, an assistant superintendent of telegraphs, 15 telegraph operators, 7 linemen, a battery man, and a messen-

ger. The number of arrests made in Manhattan and Bronx during the year was 100,738. Of these, 19,545 were women and 81,193 men. The arrests included 12 for arson; attempted suicide, 251 men and 201 women; burglary, 793, including 5 women; disorderly conduct, 16,290 men and 8,806 women; intoxication, 14,174 men and 4,727 women; grand larceny, 1,726 men and 474 women; petty larceny, 3,382 men and 538 women; murder, 2 men; homicide, 198 men and 6 women; robbery, 270 men and 27 women; vagrancy, 5,019 men and 710 women; excise violation, 1,719 men and 42 women; violation of corporation ordinances, 11,333 men and women. The Detective Bureau made 2,585 arrests and recovered property valued at \$250,487.20. The bureau secured 438 convictions of criminals, whose sentences in prison aggregate seven hundred and eighty-four years. The police found 186 men and 25 women dead. Notice was received of 46 runaway boys and 13 runaway girls. The number of lost children received at headquarters was 2,222 boys and 1,137 girls. The number of foundlings picked up was 95 boys and 76 girls and 4 colored boy babies.

Education.—The board having control of this subject consists of 21 commissioners, who are appointed by the Mayor, and receive no salary. The president of the board is Charles B. Hubbell, who was re-elected temporarily on Feb. 1, and permanently on Feb. 21. The city superintendent is William H. Maxwell, and the headquarters are at 146 Grand Street. According to the annual school report for the year ending July 31, 1898, the number of children from five to eighteen years in the entire city was 702,162, giving Manhattan and Bronx 382,000; Brooklyn, 276,662; Queens, 30,000; and Richmond, 13,500. The enrollment of pupils between five and eighteen years of age in all the public schools in Manhattan and Bronx was 270,501; in Brooklyn, 163,636; in Queens, 24,049; and in Richmond, 10,145; a total of 468,329. The expenditures were: Manhattan and Bronx, all school purposes, \$5,926,544.03; average for each pupil, \$21.89; Brooklyn, \$3,694,615; average for each pupil, \$22.45; Queens, \$600,000; average for each pupil, \$24.10; Richmond, \$355,611.67; average for each pupil, \$34.49; total for the entire city, \$10,576,770.80; average, \$22.48. In Manhattan and Bronx the aggregate daily attendance of pupils was 36,233,327, and over eighteen years 15,880; in Brooklyn it was 23,019,422, and over eighteen 154,169; in Queens, it was 3,655,964, and over eighteen 5,700; in Richmond it was 1,352,400, and over eighteen 1,562. The licensed teachers employed were: Manhattan and Bronx, 467 male and 4,673 female; Brooklyn, 180 male and 3,309 female; Queens, 42 male and 563 female; Richmond, 33 male and 183 female; making totals of 722 male and 8,730 female teachers, and a grand total of 9,542 teachers. In Manhattan and Bronx there were 162 brick and 8 frame school buildings. Brooklyn had 106 brick and 23 frame schoolhouses. Queens had 26 brick, 2 stone, and 49 frame buildings. In Richmond there were 10 brick and 19 frame schoolhouses. In Manhattan and Bronx there were 3 high schools, with 66 instructors and 1,282 male and 1,309 female pupils enrolled. In Brooklyn there were 4 high schools, with 170 instructors and 2,455 male and 4,613 female pupils. Queens showed 6 high schools, with 24 instructors and 221 male and 276 female pupils. Richmond had 3 high schools, with 11 instructors and 74 male and 117 female pupils. Brooklyn and Queens alone were credited with teachers' training schools and classes. Brooklyn had 12, with 1 male and 295 female teachers, and Queens had 1, with 35 female teachers. Manhattan and Bronx had the largest number of kindergartens, 35, with 41 instructors

and 2,648 pupils, quite evenly divided as to sex. Brooklyn had 18, with 1,240 pupils; Queens had 6, with 453 pupils; and Richmond had 2, with 177 pupils. Manhattan and Bronx had 34 evening schools, with 601 teachers and 29,552 pupils; Brooklyn had 16, with 234 teachers and 9,689 pupils. The statistics of the department showed that the amount spent was \$16,028,801.54. For the salaries of regular day-school teachers \$6,959,400.45 was spent; for kindergarten teachers, \$27,145.80; and for night schools, \$211,835.64. The amount spent for libraries was \$48,146.51. The sum of \$647,979.18 was spent for free text-books for the poor, which is nearly double the total amount spent in the territory now included in the city in any preceding year. The sum of \$6,425,273.84 was spent for school sites and houses. The report says that 39 school buildings were in course of construction, to have a total seating capacity of 50,000. The city also owns 22 school sites on which buildings are to be erected, which will accommodate 39,000 pupils. Proceedings are under way for acquiring 46 additional lots for schools in Manhattan and Bronx, and the board has approved the purchase of 14 other lots.

The success which attended the vacation schools and playgrounds kept open in the city last summer after the regular school year had ended has resulted in the approval of the idea by the municipal authorities. For the coming year the Board of Estimate and Apportionment appropriated \$10,000 for the maintenance of the vacation schools and \$15,000 for the playgrounds.

Adult education is provided by courses of lectures to the people, which are given during the period from October to May, in the evenings, in school-houses and halls. Lectures are given in forty-five places; about two hundred lecturers are engaged, eighteen hundred lectures given, and the total attendance for the season about five hundred thousand. The amount appropriated for the year 1898 for the free lectures is \$60,200 for the Boroughs of Manhattan and the Bronx.

Rapid-Transit Railroad Commission.—This body consists of Alexander E. Orr, president; Woodbury Langdon, John Claffin, George L. Rives, John H. Starin, and Charles S. Smith, together with the Mayor and Comptroller, *ex officio*. The office is at 256 Broadway. On Jan. 12 the Metropolitan Street Railway addressed a communication to the commission, withdrawing from further consideration the construction of an underground road as projected by the commission and approved by the Supreme Court. Previously, however, the Manhattan Elevated Railway Company presented a system of extension of the elevated roads for the consideration of the commissioners, in which it was maintained that the company would solve the problem of rapid transit. The commissioners took expert opinion on the plan submitted, and then decided that the plan was advantageous only from the view point of the elevated company. The Manhattan Elevated Railway Company subsequently announced their intention to introduce electricity on their system, and that they would "proceed to effect a general installation with as little delay as possible." Meanwhile a petition was presented to the Supreme Court, asking for some modification of the decision relative to the bond to be required under section 34 of the rapid-transit act. In reply to this petition the Supreme Court, on March 18, declared a decision modifying its previous decision requiring a continuous bond of \$15,000,000 to be given by the contractors for a term of fifty years, by stipulating that \$14,000,000 of that bond be conditioned upon the construction and equipment of the underground railway, and that \$1,000,000 should be a continuous

security applicable to construction, equipment, rents, maintenance, and operation. On Jan. 26 a communication was sent to the Manhattan Elevated Railway Company asking that corporation to present separate formal applications for such additional franchises and facilities as may be desired in behalf of the Manhattan Company and to state specifically the exact routes upon which it desired to erect extensions and the form of structure to be used upon each route; what additional tracks it desired to erect upon streets and public places already occupied by its railroad; within what time it would construct such additional structures as may be specified and authorized by the board, and such further facts as may be pertinent to such applications. A prompt reply was received and four contemplated routes were outlined, including a West Street line with connection from City Hall to the west side and extensions east and west to King's Bridge and Two Hundred and First Street. On April 11 the Rapid Transit Board served on the Manhattan Company 7 separate documents, tendering 7 separate franchises, and requested that within thirty days the company should accept or reject them. An answer was received on May 6, in which the franchises as proffered were rejected on the ground that the terms were too onerous to be considered. The proposed franchise to build a tunnel under Amsterdam Avenue the Manhattan Company would not accept. Also for four of the lines for which 5 per cent. was asked the Manhattan Elevated Railway Company offered half of 1 per cent. Further correspondence was held, but without result. On May 21 the commission addressed the Manhattan Elevated Railway Company a letter which contained the following statement: "Unless your company is willing to submit to our board a counter-proposition which shall be complete in all its details, and which shall thus show exactly what benefit the community may expect to receive from your action, it would appear to be futile to continue the negotiation."

East River Bridge.—The commission having in charge the building of a bridge across the East river from Delancey Street near Grand Street, Manhattan, to South Fifth Street, Brooklyn, was abruptly removed by Mayor Van Wyck on Jan. 19, and a new commission consisting of Lewis Nixon, Smith E. Lane, and James W. Boyle, Manhattan; Julian D. Fairchild, John W. Weber, and Thomas S. Moore, Brooklyn, was appointed. The old commissioners applied to the courts for relief, contending that they were illegally removed, but after one favorable decision in their behalf by a lower court the Court of Appeals rendered a decision in which it was held that Mayor Van Wyck is the successor of the former Mayor of Brooklyn, as well as of his predecessor in old New York, and that under the new charter he has the power to remove public officers at pleasure within six months after the beginning of his term of office. Up to Dec. 31, 1897, the commission had acquired title to property in the cities of New York and Brooklyn requisite for the foundations of the towers and anchorages of the bridge to the amount of \$368,956, original cost of the several pieces of property, and \$8,986, additional expenses.

During the year the work of completing the trolley-car service on the New York and Brooklyn Bridge was continued. On Feb. 16 the cars of five Brooklyn lines were running on the bridge. In March an agreement was made between the Long Island Railroad and the Brooklyn Elevated Railroad, by means of which the trains of the Long Island Railroad were enabled to cross the bridge. The connection between the tracks of the companies was made by means of inclined planes at Flatbush

Avenue and at Atlantic Avenue near Chestnut Street. This agreement became operative on June 18, when a train of cars left the Manhattan end of the bridge under electric-motor power, and proceeded to the Brooklyn side, where a regular engine was attached, and then to Manhattan Beach, which was reached in thirty-seven minutes.

Public Library.—A special act of the Legislature in 1897 authorized the city to construct a library at a cost of \$2,500,000, and a plan for the building was accepted by the library trustees, which plan was also approved by the Board of Park Commissioners (see "Annual Cyclopædia" for 1897). Early in the year an effort was made to secure from the Board of Estimate and Apportionment a bond issue for \$150,000 to remove the old reservoir and to prepare the site for building, but it received an abrupt check from the Mayor, who decided that no bond issues would be made, as the debt of the city had already exceeded its constitutional limit. The matter was again agitated in the autumn, but the issue of revenue bonds for the library was deemed not advisable for the reason that the city "is not in a financial condition to warrant any new bond issue until next year at the earliest."

Art Commission.—A Municipal Art Commission, consisting of Charles T. Barney, Henry E. Howland, Samuel P. Avery, John La Farge, Daniel C. French, and Charles E. McKim, was named by Mayor Van Wyck on Feb. 14. The Mayor, the President of the Metropolitan Museum of Art, the President of the New York Library (Astor, Lenox, and Tilden Foundations), and the President of the Brooklyn Institute of Arts and Sciences are *ex-officio* members of the commission. This commission has extensive powers. Without its approval no work of art can become the property of the city by gift or purchase, and none can be placed upon city property. The expression "work of art" is construed by the charter to include "oil paintings, mural decorations, stained glass, statues, bas-reliefs, or other sculptures, monuments, and arches." At the discretion of the Mayor or of the Municipal Assembly the commission may exercise like powers over designs for municipal buildings, bridges, gates, lamps, etc., to be erected on city property. The commission met on Feb. 28 and organized by the election of Mr. Barney as president, Mr. Marquand as vice-president, and Mr. Healy (President of the Brooklyn Institute) as secretary.

Monuments.—In comparison with previous years very few historical monuments were added to those already in existence. The Lorelei fountain, commemorating the genius of Heinrich Heine (see "Annual Cyclopædia" for 1896 and 1897), was located finally in Hoboken, N. J., permission having been granted by the Common Council of that city on March 31. The monument is to be in Hudson Park, the cost to be \$4,000, raised by subscription among the German-American residents of that city.

On Oct. 31 a beautiful memorial to Richard M. Hunt was presented to the city by the Hunt Memorial Committee (see article *FINE ARTS*).

The Municipal Art Commission met on Dec. 19 and selected Mount Tom, a little hill in Riverside Park, at the foot of Eighty-third Street, as a site for the Soldiers' and Sailors' Monument. The project for the monument has been open ever since the Legislature passed a bill authorizing the city to spend \$250,000 for its erection.

On Dec. 31 the Park Department received official notice that the Board of Estimate had granted President Clausen's request for \$3,500 to defray the expense of the erection of the Washington-Lafayette bronze. The statue was the gift of Charles Broadway Rouss. It was accepted by the Art Commission and the Park Board, and a site for it

was selected at One Hundred and Fourteenth Street and Morningside Avenue. The statue is of bronze, by Bartholdi, and is a duplicate of that erected in Paris. The figures are ten feet in height and represent Lafayette bringing Washington the news that France has sent help to the American patriots. The statue will rest on a granite base, the whole to be 35 feet in height. The statue was presented to the city through the Mayor on Feb. 18.

Charter Day.—A committee of citizens who had undertaken to arrange for the establishment of an annual "Charter Day" celebration, in commemoration of the consolidation of the territory comprising New York, met on Feb. 1. Various plans were discussed and the industrial and commercial organizations of the city were invited to join in the celebration. Subsequently a committee of 420 persons was appointed by Mayor Van Wyck, of which William De H. Washington was chosen president and J. G. Garnett secretary. An appropriation of \$50,000 from the city funds was promised and an elaborate programme was arranged. The Legislature passed a bill making May 4 a legal holiday; but as the time approached the impending war with Spain became obvious, and it was voted to defer celebration until after peace had been declared.

Later in the year the project of honoring the returning military, both of the army and navy, was taken up by this committee. Sept. 17 was chosen as the date and the consent of President McKinley for a parade of the military was obtained, the naval parade having taken place on Aug. 20. Finally it was proposed to review the soldiers in camp at Montauk Point as they returned to their homes through New York, when they were disbanded, but owing to their weak physical condition the celebration was abandoned.

Naval Parade.—On Aug. 16 the City Council and Board of Aldermen, taking into consideration that the Government of the United States had directed that the cruisers and battle ships of the fleet under Rear-Admiral Sampson, with their officers, sailors, and marines, should come to New York, adopted the following resolution:

"That his Honor the Mayor of the city of New York be, and he is hereby, requested to invite the people of the United States to visit this city on Saturday next to receive the victorious squadron of Admiral Sampson on its return from Cuban waters, and to give these returning heroes such a welcome as will in a measure express the immense gratitude that pervades the entire American people; and he is hereby requested to name a committee of 100 citizens to arrange for the reception of the home-coming fleet."

In accordance with the foregoing resolution the Mayor appointed a committee of 100 citizens, who met at City Hall on Aug. 18 and elected the Mayor as chairman, with former Gov. Roswell P. Flower, former Gov. Levi P. Morton, and Gen. Louis Fitzgerald as vice-chairmen, and Alfred M. Downes as secretary. A committee of arrangements and other sub-committees were promptly appointed, who immediately took up the various lines of work assigned to them.

It was not till 5.40 A. M. on the morning of Aug. 20 that the fleet coming from the south was sighted from the Highlands. The sun was hidden by a bank of heavy clouds, but as the light grew stronger the six war ships could be seen sharply outlined against the horizon, with great volumes of smoke behind them. The vessels were in single file, with Admiral Sampson's flagship, the "New York," in the lead. The "Brooklyn" held fourth place in the line. The "Iowa" was second, the "Indiana" third, the "Massachusetts" fifth, and the "Oregon" last. As the Narrows were reached, Fort Hamilton

and Fort Wadsworth fired salutes, which were answered by the fleet. As they approached Tompkinsville they were greeted again by the admiral's salute of 13 guns from the "Texas," which had been at the navy yard, and by the auxiliary cruiser "St. Paul." The fleet slowed down and the "New York" received on board Secretaries Gage, Alger, and Wilson, Attorney-General Griggs, and Postmaster-General Smith, of the President's Cabinet. Scarcely had the little tug pulled away when another approached with the family of Admiral Sampson. Brief greetings were exchanged, and then as the fleet passed up the bay with the flood tide the tug containing Mayor Van Wyck and the Citizens' Committee was reached, and they were soon on the "New York."

Meanwhile more than 200 vessels of all sorts had surrounded the fleet. At exactly 10.40 o'clock the saluting station at Castle William fired a national salute. The ships were close to the Battery, and Hudson river was full of all sorts of craft. Every one of these vessels, from an ocean-going steamship to an antiquated sidewheeler, had a whistle, and every whistle was used. Cheer upon cheer was rolling over the water, and this, added to the din of the saluting cannon and the cannon on yachts, made a combination of noise that was more suggestive of battle than of welcome. Every yacht strung its signal flags from taffrail to truck, and the steamboats and tugs flew all the colors that they had. The flags that attracted most attention were the battle flags that flew at the foremasts and the taffrails of some of the war ships. Slowly up the Hudson came the war ships past the commercial districts, and then the residential portion was reached. Still onward past the Riverside Park, its green black with more than 1,000,000 people, till the guns of ships and batteries fired a salute to the memory of Grant. Then returning down the Hudson to the bay over the same route, the fleet came to anchor off Tompkinsville.

Post Office.—The care of the mails is a Federal charge. The Postmaster is Cornelius Van Cott. The Post Office building is at the junction of Broadway and Park Row. Besides the general post office there are 29 branch offices, of which the one known as Branch S, at the corner of Broadway and Howard Streets, was opened on May 11. During the year there were handled in the mailing and distributing departments 619,941,178 pieces of mail matter, an increase of 40,139,273 over 1897. The total business of the money order department showed an increase of nearly 18 per cent. During the year 833,956 money orders, representing \$11,525,919.66, were sent to Europe, and 190,101 money orders, representing \$4,187,100.37, were received from foreign countries. The total receipts, exclusive of the money-order department, were \$8,560,206.86, an increase of \$406,179.66. The expenses of the office amounted to \$3,405,721.85, giving a net revenue of \$5,154,485.01. During the year more than 300,000,000 stamps, 75,000,000 postal cards, and 50,000,000 envelopes were sold. There were 1,302,000 registered letters and packages mailed, as compared with 1,262,348 in 1897.

Customhouse.—The collecting of the custom duties is under the direction of the national authorities. The Customhouse is in Wall Street, between William and Hanover Streets. The collector during the year was George R. Bidwell. The domestic exports from New York in 1898 aggregated in value \$460,007,000, against \$396,388,942 in 1897. The imports of merchandise were \$416,745,431 in value, as compared with \$466,527,631 for 1897. The duties collected on merchandise in 1898 (excluding miscellaneous receipts) aggregated \$122,103,530.46, against \$119,648,652.79 in 1897. The imports of gold and silver were \$109,-

186,367 in 1898 and \$28,079,802 in 1897. The figures for the "in-transit trade" were as follow: Merchandise, \$28,554,717 for 1898 and \$33,668,039 for 1897; gold and silver, \$2,476,491 in 1898 and \$4,734,340 in 1897; domestic exports of gold and silver, \$44,986,002 in 1898, compared with \$75,237,235 in 1897; foreign exports of gold and silver, \$13,253,617 in 1898 and \$2,293,874 in 1897; the foreign exports of merchandise aggregated in value \$8,650,719 in 1898, against \$8,362,182 in 1897.

Naturalization.—An abstract of the work done in 1897 by the Naturalization Bureau shows that the number of citizens naturalized was 1,602. There were 2,140 petitions for certificates of naturalization filed and 8,054 declarations of intentions to become citizens were made. Duplicates of lost naturalization papers were obtained by 1,548 persons. Germany heads the list with 467 naturalized citizens. Ireland follows with 447; Russia with 189; Austria, 162; England, 84; Italy, 54; Sweden and Norway, 47; Scotland, 32; Canada, 24; Switzerland, 22; Roumania, 20; France, 14; Denmark, 12; Spain, 10; Holland, 6; Turkey, 4, and Wales, Greece, Venezuela, Peru, Australia, Egypt, and Nicaragua, 1 each.

Real-Estate Transactions.—In 1898 there were filed for record 14,627 conveyances of realty, amounting to \$103,742,216, against 14,724 conveyances, amounting to \$109,989,154, in 1897; 16,915 mortgages, amounting to \$233,706,811, were filed, against 15,913 mortgages, amounting to \$210,806,651, for 1897. The total number of building plans filed was 3,813, calling for an expenditure of \$72,661,956, against 3,511 plans in 1897, with expenditure of \$82,401,440. The total amount of alterations was \$6,646,257 in 1898, and \$7,299,404 in 1897. The real-estate auction sales in 1898 amounted to \$28,236,362; in 1897, \$36,162,725.

Political.—The interest in the election in 1898 was mainly on the two nominees for Governor, and the vote for these candidates was as follows: Manhattan and Bronx, Roosevelt 112,084, Van Wyck 172,250; Brooklyn, Roosevelt 82,821, Van Wyck 101,243; Queens, Roosevelt 9,691, Van Wyck 13,002; Richmond, Roosevelt 4,577, Van Wyck 6,723; total, Roosevelt 209,173, Van Wyck 293,179. Plurality for Van Wyck, 84,006. The Democrats elected their candidates for State Senators in Districts 1 and 2, included within Richmond and Queens County. In Districts 3, 5, 6, 7, and 9, in Brooklyn, the Democratic candidates were elected, while in Districts 4 and 8 the Republicans were successful. The senatorial Districts 10 to 22 are included in Manhattan and Bronx, and in these the Democrats were successful in every district except in 15, 19, and 22, in which the Republican candidates were elected, so that out of the 22 Senators chosen from the city of New York 17 were Democrats and 5 were Republicans. The election of Assemblymen was similar. Out of 21 from Brooklyn, 15 were Democrats and 6 were Republicans, while out of the 35 Assemblymen chosen from New York County 27 were Democrats and 8 were Republicans. For the 16 members of Congress from the districts included within the limits of New York city all the successful candidates were Democrats. This shows a loss of 10 to the Republicans. The most conspicuous of the contests was that in the Fourteenth Congressional District, where Lemuel E. Quigg, a Republican who had served for three terms, was defeated by William A. Chanler, who received 31,399 votes, against 25,083 for Quigg. Two years ago Quigg's vote was 33,233.

Events.—On Jan. 15 the Old Guard moved from its quarters on the corner of Fourteenth Street and Fifth Avenue to Forty-ninth Street and Broadway. It was escorted to its new home by delegations from the Ninth, Fourteenth, and Forty-seventh Regi-

ments. On April 3 the first trolley car over the Second Avenue surface line was run. On Aug. 1 the Third Avenue iron bridge over the Harlem river was informally opened to the public. It cost more than \$3,000,000. On Aug. 15 through trains began running to Tremont, without change of cars, over the elevated railway from City Hall to One Hundred and Seventy-seventh Street.

NICARAGUA, a republic in Central America. The Congress is a single Chamber composed of 48 members, half of them elected by the popular vote and half by the Legislatures of the 12 provinces. The President, who is elected for four years by direct universal manhood suffrage, is Gen. José Santos Zelaya. The Cabinet at the beginning of 1898 was composed as follows: Secretary of the Interior, Police, Ecclesiastical Affairs, War, and Marine, Gen. Erazmo Calderon; Secretary of Public Instruction, Dr. M. C. Matus; Secretary of Finance and Commerce, E. Lopez; Secretary of Communications and Public Works, J. A. Roman.

Area and Population.—The republic has an area of 49,200, square miles, with 420,000 inhabitants, of whom about 1,200 are of pure European extraction, not including 371 foreign settlers, of whom 88 are Germans, 69 Italians, 60 Americans, and 52 British.

Finances.—The revenue is derived from the alcohol, tobacco, and gunpowder monopolies and from import and export duties. The Government in 1894 stopped paying interest on £285,000 borrowed in London at 6 per cent. in 1886 for the purpose of building railroads, and in 1895 made a settlement with the bondholders, agreeing to pay half the overdue coupons and for the future 4-per-cent. interest. The amount outstanding on July 1, 1897, was £294,335. The internal debt amounted to \$7,000,000 before a new loan of \$500,000 was issued in 1896. The standing army of 2,000 men is, besides the debt, the chief expense of the Government.

Commerce and Production.—The cultivation of coffee, sugar, and bananas is increasing. The exportation of rubber was interdicted from the beginning of 1898. The estimated value of all imports in 1896 was \$3,730,000, and of exports \$5,647,000. The trade with the principal countries was as follows:

COUNTRIES.	Imports.	Exports.
Germany.....	\$230,000	\$2,296,000
Great Britain.....	1,472,000	730,000
United States.....	676,000	1,009,000
France.....	473,000	387,000

For 1897 the exports were estimated at a total value of \$2,641,920, of which \$1,023,000 came from Great Britain, \$501,800 from the United States, \$474,820 from Germany, \$275,000 from France, and \$367,500 from other countries; the exports at \$3,057,665, of which \$1,400,750 went to Germany, \$750,250 to Great Britain, \$590,500 to the United States, \$100,000 to France, and \$276,165 to other countries. The export of coffee was valued at \$1,925,000; gold, \$550,000; gun, \$80,000; hides, \$68,100; timber, \$56,535; cattle, \$32,500.

Navigation.—There were entered during 1897 at the port of Corinto 211 vessels, of 188,182 tons, of which 129 were steamers, of 182,892 tons.

Communications.—The completed railroad mileage is 89, that of new railroads in prospect 520 miles. The telegraphs have a length of 1,246 miles.

Political Affairs.—A revolution was attempted in the early part of 1898, but was suppressed after the rebels had been driven from San Juan del Sur on Feb. 7 and from Rivas a day or two later. About the same time a British cruiser arrived at Corinto to enforce the payment of the indemnity due to British subjects for losses resulting from the Mos-

quito disturbances of 1894. It was agreed in the convention of Nov. 1, 1895, to refer the matter to a commission. Afterward a lump sum was agreed upon, and a part of the amount was paid, but, in spite of repeated urgent applications, the balance was withheld until forcible measures to collect it were threatened. The concession granted to the Maritime Canal Company for the construction of an interoceanic ship canal was declared to be forfeitable at the expiration of the time limit, Oct. 9, 1899, and President Zelaya declined to renew it, the company having ceased active operations. The original contract under the Cardenas-Menocal concession, signed in April, 1887, provided that the concession should not become operative until \$2,000,000 had been expended and that the canal should be completed in ten years. As the Maritime Canal Company claimed that this period only began after the \$2,000,000 had been expended, the Nicaraguan Government agreed that it should date from Oct. 9, 1889. President Zelaya entered into negotiations with another American syndicate, and Congress on Nov. 1, 1898, approved a provisional agreement made with Edward S. Cragin and Mr. Eyre, of Grace & Co., representing these New York and Chicago capitalists, looking to an arrangement between them and the Maritime Canal Company.

The United States Government appointed, under an act of Congress approved on June 4, 1897, a new commission to investigate the proper route and the feasibility and cost of construction of a Nicaragua canal. This commission, consisting of Rear-Admiral J. E. Walker, Col. Peter C. Hains, of the Corps of Engineers, and Lewis M. Haupt, civil engineer, employed 70 engineers and was engaged for ten months in examining the canal region from ocean to ocean. In the preliminary report, handed in on Dec. 26, 1898, the commissioners recommended the construction of a canal of greater dimensions than had previously been proposed, both in length of locks and in width, depth, and radius of curvature. The greater dimensions were rendered necessary by the demands of modern commerce, size and draught of modern ships, etc. Two routes were examined—the one chosen by Civil Engineer Menocal for the Maritime Canal Company, and a low level route, somewhat longer, laid down by Commander Lull. The Maritime route requires the construction of artificial basins to control the San Juan, involving an enormous amount of embankment, and in other places deep cuttings. Two of the commissioners estimated the cost by this route at \$124,000,000 and by the Lull route at \$123,000,000. Col. Hains believed that this estimate, considering the difficulties incident to work in tropical countries, was lower than it should be by about 20 per cent., while he concurred with the other members as to the feasibility of the canal. The commission preferred the Lull route, which avoids many great cuttings and a great deal of the embankment required for the creation of artificial basins. The canal, if built over this route, was pronounced more desirable because it is easier of construction and presents no problems not well within good engineering precedents, and will be safer and more reliable when completed.

NORTH CAROLINA, a Southern State, one of the original thirteen, ratified the Constitution Nov. 21, 1789; area, 52,250 square miles. The population, according to each decennial census, was 393,751 in 1790; 478,103 in 1800; 555,500 in 1810; 638,829 in 1820; 737,987 in 1830; 753,419 in 1840; 869,039 in 1850; 992,622 in 1860; 1,071,361 in 1870; 1,399,750 in 1880; and 1,617,947 in 1890. Capital, Raleigh.

Government.—The following were the State officers during the year: Governor, Daniel L. Russell, Republican; Lieutenant Governor, C. A. Reynolds, Republican; Secretary of State, Cyrus Thompson,

Populist; Treasurer W. H. Worth, Populist; Auditor, H. W. Ayer, Populist; Attorney-General, Z. V. Walser, Republican; Adjutant General, A. D. Cowles, Republican; Superintendent of Instruction, C. H. Mebane, Populist; Commissioner of Agriculture, John R. Smith, Republican; Labor Commissioner, J. V. Hamrick, Populist; Railroad Commissioners, J. W. Wilson (discharged during the year by the Governor), L. C. Caldwell, J. H. Pearson, and D. H. Abbott; Chief Justice of the Supreme Court, William T. Faircloth, Republican; Associate Justices, R. M. Douglas, Republican; Walter Clark, Democrat; D. M. Furches, Republican; W. A. Montgomery, Democrat; Clerk, Thomas S. Kenan, Democrat.

Finances.—The receipts of the State Treasury for 1897 were \$1,308,691.81, against disbursements of \$1,294,725.24, receipts exceeding expenditures by the sum of \$13,966.57. The receipts in 1898 were \$1,337,552.40, against disbursements of \$1,254,592.09, receipts exceeding expenditures by \$82,960.31. Among the receipts for 1898 were: Atlantic and North Carolina Railroad dividends, \$12,666; license tax on banks, \$7,428; tax on stock in banks, \$10,587; express companies' 2-per-cent. tax, \$3,000; interest on bonds belonging to the State, \$8,175; insurance companies' license, \$27,642; insurance companies' 2-per-cent. tax, \$55,398; Agricultural and Mechanical College, colored, \$8,414; College of Agriculture and Mechanical Arts, \$15,585; experiment station, \$15,000; railroad dividends, \$195,018; Penitentiary earnings, \$94,942; railroad property tax, general, \$70,599; railroad property tax, pensions, \$10,861; taxes from the counties for general purposes, \$543,883; for interest on incomes, \$4,273; for interest on merchants, \$26,254; for interest on liquor, \$5,488; for pensions, property, \$73,345; for pensions, poll, \$21,965; tonnage tax on fertilizers, \$61,377. Among the items of expenditure were: The Agricultural Department, \$56,037; Bureau of Labor Statistics, \$3,500; convict accounts, \$4,543; Department of Public Instruction, \$3,000; Eastern Hospital, \$40,000; interest on 4-per-cent. State debt, \$136,275; interest on 6-per-cent. State debt, \$159,330; the judiciary, \$62,832; normal schools, \$16,000; Agricultural and Mechanical College, colored, \$18,414; College of Agriculture and Mechanical Arts, \$38,085; experiment station, \$15,000; Insane Asylum, \$55,450; Institution for the Deaf, Dumb, and Blind, \$97,500; Penitentiary earnings, \$91,047; School for the Deaf and Dumb, \$55,000; Oxford Orphan Asylum, white, \$10,000; Oxford Orphanage, colored, \$5,000; pensions to Confederate soldiers, \$100,840; public printing, \$8,810; Railroad Commission, \$14,506; Soldiers' Home, \$8,500; geological survey, \$11,833; State Guard, \$6,000; State Hospital, \$90,00; Normal and Industrial College, \$25,194; State University, \$25,000; supplemental appropriations for public schools, \$10,856.

The bonded indebtedness of the State amounted to \$6,360,770.

Banks.—There are 71 banks in the State—44 State, 21 private, and 6 savings. Following is an abstract of the condition of all at the close of business in 1898: Resources—Loans on real estate, \$1,092,542.65; all other loans and discounts, \$5,983,284.53; overdrafts, \$125,647.32; United States bonds on hand, par value, \$47,300; North Carolina State bonds, \$80,165.45; all other stocks, bonds, and mortgages, \$271,889.02; premium on bonds, \$2,345; due from banks, \$1,420,299.25; banking house, \$196,531.13; furniture and fixtures, \$70,564.60; all other real estate owned, \$140,813.22; cash items, \$171,561.21; gold coin, \$197,871; silver coin and all fractional currency, \$106,711.20; national bank notes and other United States notes,

\$420,449.67; other resources, \$189,025.05; total, \$10,526,900.30. Liabilities—Capital stock paid in, \$2,525,297.15; surplus fund, \$376,581.41; undivided profits, \$311,666.93; dividends unpaid, \$2,372.26; deposits subject to check, \$5,208,917.98; due to banks, \$186,882.69; notes and bills rediscounted, \$108,163.35; cashiers' checks outstanding, \$48,995.91; certified checks, \$9,309.33; bills payable, \$285,434.95; demand certificates of deposit, \$277,660.37; time certificates of deposit, \$529,597.26; other liabilities, \$650,020.71; total, \$10,526,900.30. The total resources and liabilities of the State banks were \$7,074,293.25; of the private banks, \$1,533,854.08; of the savings banks, \$1,918,752.97.

Valuations, etc.—The total valuation of all classes of property in the State was reported at \$265,867,197.99—valuation of land, \$110,063,057; of mineral, quarry, and timber interests, \$430,552; of town lots, \$44,786,560; of personal property, \$76,967,160. According to the report of the Railroad Commission, the total mileage of the State is 3,477.99 miles, and its total valuation \$32,099,931.90. The Atlantic Coast Line, 788.87 miles, is valued at \$9,779,875.80; the Southern Railway Company, 1,005.20 miles, at \$10,565,720.20; miscellaneous roads, 1,078.30 miles, at \$5,700,659.75. The total assessed valuation of the steamboat property is \$298,937; of the telegraph companies, \$803,510; the Pullman Car Company property, \$96,918.15; and of the property of the Mercantile Trust and Deposit Company, \$326,071.94; making the total assessed valuation of the railroad, steamboat, and telegraph property of the State \$33,619,868.19. The gross income of the Atlantic Coast Line was given as \$1,283,262.25; of the Southern Railway, \$1,724,489.08; of the Seaboard Air Line, \$757,483.40; of miscellaneous roads, \$505,609.36. The number of men engaged in railroading was 9,966. During the year 780 persons were injured on the railroads and 99 were killed. Of the killed only 2 were passengers.

The Railroad Commission points to the following items as results of its administration for 1898: Increased tax valuation of telegraph and telephone property, \$4,462,769.96; discontinuance of free passes and enforcement of the free-pass law; railroads required to refund overcharges within 30 days after notice; freight rates on fertilizers reduced 20 per cent., and on corn 10 per cent.; mileage books made good for members of the purchaser's family.

Education.—There were in the State 628,480 school children between the ages of six and twenty-one—415,262 whites, 213,218 colored; there were enrolled 399,375—261,223 whites, 138,152 colored; total average attendance, 213,240—144,357 whites, 68,894 colored; percentage of school population in average attendance, 34 $\frac{7}{8}$ whites, 32 $\frac{1}{8}$ colored; average length of school terms, 71 days for whites, 64 days for colored; average salary of teachers, white males \$24.66, white females \$22.96, colored males \$21.64, colored females \$19.85; value of school property, for whites \$683,363, for colored \$246,851, total \$930,214; number of schools taught, 5,083 white, 2,404 colored.

Crime.—The Attorney-General published a summary of the criminal statistics of the State for the ten years ending June 30, 1898, and in connection therewith a summary of the number of trials, etc., since 1890, showing that the increase of crime keeps pace with the increase of population. The ratio of whites to negroes is as 2 to 1. The report of the year ending June 30, 1898, is taken. This shows that there were 9,729 actions, of which 5,015 were against whites, 4,672 against negroes, and 42 against Indians; 9,011 against males, 718 against females. There were 6,238 convictions, 1,590 acquittals, and *nolle pros.* was entered in 1,794 cases. The percentage of crime by whites was not quite

52; that of the negroes was a trifle over 48. The cases tried for various crimes were as follows: Assault and battery, 660; abandonment, 55; abortion, 5; assault with deadly weapon, 1,032; affrays, 1,022; simple assault, 414; assault with intent to commit rape, 27; arson, 10; attempt to burn house, 1; bigamy, 19; burglary in the first degree, 19; burglary in the second degree, 21; carrying concealed weapon, 942; cruelty to animals, 55; forgery, 53; gambling, 399; housebreaking, 24; incest, 8; larceny, 1,497; libel, 7; manslaughter, 12; murder in the first degree, 15; murder in the second degree, 24; perjury, 57; rape, 23; riot, 3; robbery, 12; slander, 43; seduction, 35.

Lynching.—Emma Hartsell, daughter of Samuel Hartsell, living near Concord, was found dead in her father's house on the afternoon of May 29, she having been outraged. A newspaper dispatch gave this account of what occurred: "The young woman was of a respectable family, and the news of the affair spread rapidly. In a short time large bodies of both town and country people assembled, and in the course of an hour two negroes, Joe Kiser, aged twenty-five, and Tom Johnson, aged twenty, were arrested, and the sheriff managed to get them safely to jail. The prisoners were placed in the cage, the stronghold of the jail, and the sheriff and other officers stood guard at the foot of the stairs. They did all they could to prevent the jail being forced, but as they looked out upon the sea of determined, angry faces they realized that nothing but the blood of the guilty would satisfy them. It was twenty minutes to ten o'clock when the mob, unable any longer to restrain its fury, broke down the jail doors. The sheriff and deputies were overpowered and the crowd rushed up the stairs toward the cell of the doomed men. The lock was broken, the door opened, and the prisoner hauled forth. The crowd called to the sheriff to get a lamp, but only a lantern was to be had. By this uncertain, fitful light the mob carried its victims out, took them to the vicinity of the crime, and hanged them to a tree. The bodies were filled with bullets."

A negro was hanged in Macon County, Nov. 7, charged with attempting to assault two white women.

Industrial.—There were 207 tobacco factories in operation in the State in 1898, giving employment to 16,900 men, 9,700 women, and 5,200 children. The production of plug tobacco had increased 7,683,000 pounds over 1897, and 3,450,000 more cigars were made. The output of 323 lumber mills aggregated \$4,558,280 for the year. There were 37 furniture factories, 126 tanneries, and 96 flour mills in operation. There were but 33 cotton mills operating in the State in 1870, equipped with 618 looms and 39,897 spindles; ten years later the mills had increased to 49, the capacity of many old ones had been enlarged, and there was an increase of over 100 per cent. in the equipment, the looms numbering 1,790 and the spindles 92,385; five years later there was another increase of 100 per cent. in round numbers, the mills being 80, with 4,071 looms and 199,000 spindles; in January, 1898, there were 207 mills, with 25,000 looms and 1,045,385 spindles. Ten new spinning companies were organized during the year, 9 additional mills were in course of erection, and 10 hosiery and knitting mills were being built. The average day's work is eleven and three-quarter hours, and 293 was the average number of days on which mills were in operation.

Twenty gold mines were making deposits in the assay office at Charlotte, Mecklenburg County leading in the number of mines, with Union second, and Cabarrus third. There were 11 brownstone and 25 granite quarries at work, and 8 coal mines. Mica

mining showed an increase, there being 58 mines. The market price of corundum had risen from 4 to 20 cents a pound, and there were 23 corundum mines in operation. Three of the many talc mines produced 3,200,000 pounds.

New Railways.—Two new railroad companies, to operate within the State, were incorporated this year. The first, the Goldsboro, Snow Hill and Eastern Railroad Company, was capitalized at \$300,000, with the privilege of increasing the capitalization. One terminus of this road will be at Snow Hill, Greene County, and the other at Panteo, Beaufort County, the road to be about 60 miles long and to traverse parts of the counties of Greene, Pitt, and Beaufort. The second, the Raleigh and Cape Fear Railway Company, was capitalized at \$200,000, the road to extend from some point on the North Carolina Railroad between the town of Carey and the town of Garner, Wake County, to some point on that portion of the Cape Fear river which lies in the county of Harnett, 35 miles.

Confederate Pensioners.—The sum of \$120,000 was available for pensions, being \$18,000 more than for 1897. There was a large increase in pensioners, due to the number of applicants passed by county boards. There were 131 first-class pensioners, an increase of 8 over 1897; 272 second-class, an increase of 26; 393 third-class, an increase of 30; 1,963 fourth-class, an increase of 53; 2,681 widows, a decrease of 59. The net increase of pensioners over 1897 was 58.

Decisions.—In the case of *Sophia A. Houston, of Chatham County vs. Frank W. Thornton and others*, as directors of the People's National Bank of Fayetteville, which went into the hands of a receiver in January, 1891, the plaintiff alleged that by the false statements of the bank's condition, published by the defendants, she was induced to buy 11 shares of the capital stock of the bank, which stock became worthless through the gross negligence of the defendants. The case was tried before the Chatham Superior Court, which rendered judgment in favor of the plaintiff for the full amount she paid for the stock, and interest thereon. From this judgment the defendants appealed to the Supreme Court, which affirmed the judgment of the lower tribunal.

In the case of *the State Treasurer vs. the Bank of New Hanover*, the court held that the relations existing between the parent bank and its branch (at Wadesboro) were those of principal and agent; that all the assets of the agency belonged to the principal, and all the debts of the agency were debts of the principal.

In the case of *Abram Carter vs. The Life Insurance Company of Virginia*, the court held that where a life insurance company lends to a borrower a sum of money at the full legal rate of interest, payable monthly, its repayment being secured by a deed of trust, but also requires the borrower to take an endowment policy in said company on his life, the monthly premiums on which for life or a term of years are also secured by the deed of trust, the contract is usurious.

The court decided against the Southern Railway Company and the Raleigh and Augusta Air Line Company for issuing free passes. These two cases went up from Wake County Superior Court, which had imposed a fine of \$1,000 on each company. A special verdict was rendered in the lower court, the jury finding that while the law had been violated there had been no intent on the part of the officers of the railroad companies to violate the law. In closing its opinion the Supreme Court said: "In the face of the clearly expressed provisions of the law, and in the face of the repeated constructions of that part of the Federal statutes regulating interstate com-

merce, which is in precisely the same words in which our statute is framed upon the point now before us, the defendant took its chances. It has in doing so violated the criminal law of the State and must abide the consequences, as all others ought to do who break the laws. It must be presumed that common carriers know well what they are doing in this matter. They are not, and neither do they wish to be considered, charitable institutions; they are corporations formed for profit and gain; and whenever they grant a thing of value—free transportation to a passenger not embraced in the excepted classes specified in the act—they must be acting, as they think, on business principles, expecting a return upon their investments. If, in pursuing their business interests, they violate the law, they must abide the result." Associate Justice Douglas dissented from the opinion of the court.

Race Troubles and State Election.—In September, 1898, a staff correspondent of the Atlanta "Constitution" dispatched to that paper a letter from Raleigh, N. C., elaborating a charge which from time to time had been less definitely made by various journals of the State—namely, that it was the purpose of the negroes to colonize and control North Carolina; that it was the purpose of the blacks thus to solve the race problem, by the establishment of a commonwealth of their own. This correspondent wrote:

"It is no secret that colored leaders, ambitious for their race, have matured in their minds a plan by which they hope to obtain absolute control of the legislative, judicial, and executive machinery, and then to rapidly carry out a scheme of colonization by which this will become a thoroughly negro sovereign State, with that population in the majority and furnishing all officials in the public service, from United States Senators and Governors down through judges, legislators, and solicitors, to the last constable and janitor. If their plan succeeds, North Carolina is to be the refuge of their people in America. Their brethren from all the Southern States will be invited to come here, cast their lot among their fellows, and together to work out their destiny in whatsoever degree of prosperity and advancement they may be able to achieve for themselves."

The correspondent's letter was copied in all the newspapers of the State, its argument being approved or ridiculed according to the political views of the various editors, but by most of them it was published as a startling revelation of facts. Commenting upon it, one journal said:

"Almost immediately after the passage of the reconstruction acts, under which the Southern States were readmitted into the Union, and by which civil and political rights were conferred upon the negro, there was a great influx of negroes into Washington city, and the capital of the Union was fast becoming the negro's political heaven. Why? It was about this time that an act was passed by Congress which gave to the citizens of the District of Columbia the power to elect all the local officers of the city of Washington. The people there had local self-government, and the negro was as good as the white man. The city government soon became so corrupt and extravagant that Congress was forced to repeal the act giving the people the right of local self-government. What place is now to him what Washington once was? What one State in all this Union now holds out the inducement to enter her citizenship and seek her political honors? What State, and what State alone, is represented in the Congress of the United States by a negro? What State, and what State alone, has registration laws which make it easy for him to register, whether he is a legal voter or not? What State, and what

State alone, requires nothing of him to entitle him to vote except his bare oath that he is so entitled? The answer to these inquiries is North Carolina."

On Oct. 18 the Republican postmaster at Wilmington publicly addressed a letter to United States Senator Pritchard, in which he said:

"As a matter of fact, there are in this county 36 colored magistrates and a colored register of deeds and various other minor officials, besides some presidential appointees, and the property owners, taxpayers, and business men seriously object to this state of affairs, and there now exists here the most intense feeling against any sort of negro domination. There is a greater feeling of unrest and uncertainty about the maintenance of order than I have ever seen, and many, even the most conservative, feel that a race conflict is imminent, than which nothing could be more disastrous, not only to this city and county, but to our party in the State, and rather than have riot, arson, and bloodshed prevail here, I, Republican though I am, advise giving up the local offices in this county, as there are no national political principles involved in this conflict."

In the same month a storehouse in Ashpole, Robeson County, was robbed and burned. Certain negroes suspected of the crime determined to resist arrest, and were said to have threatened to burn the town and murder the citizens, arms and ammunition having been stored by them near by. It was reported that while white guards were standing around a fire one night they were fired upon by negroes in ambush, 3 white men being seriously wounded. The fire was returned by the whites, and the negroes fled. Bloodhounds were sent for by the whites, the negroes were hotly pursued, and 10 of them were captured and lodged in jail.

A special dispatch to the St. Louis "Globe-Democrat," from Wilmington, dated Oct. 23, contained the following:

"North Carolina is in the throes of the most desperate campaign since the reconstruction era after the civil war. The People's party came into existence in 1894, and though its strength in North Carolina was only 32,000, a fusion arrangement with the Republican party, composed of 120,000 negroes and 25,000 whites, led to the capture of the Legislature by the Fusionists, whereupon it was alleged that the negro had become a controlling element in politics. In 1896 the Fusionists again elected an overwhelming majority of the Legislature, elected a Republican Governor and Populist and Republican State officers. The negro, realizing his importance, demanded his share of the offices, and the result was that many of the eastern counties of the State, where they are largely in the majority, became 'negroized,' as the Democrats sneeringly call the elevation of the colored man to office. The situation may be judged when it is stated that the Wilmington 'Messenger,' the leading paper in the State, boldly declared a few days ago that the Democrats intended to overthrow the present political conditions—peaceably if possible, but by revolution if necessary. This is the feeling of Democratic leaders throughout the greater part of the State, and they have prepared to carry out their purpose. Rioting between the races in Wilmington has been narrowly averted several times. The negroes do not propose to be bulldozed, and the white Democrats are preparing to hack their threats by force. Every house in the city is an arsenal. Winchester rifles and riot guns have been purchased in great quantity, and the white men have gone so far as to purchase a Colt rapid-fire machine gun. The negroes are behaving peaceably, but they are prepared."

About this time the "North Carolinian" called attention to the fact that in 5 counties of the State

there were 143 negro magistrates; that altogether in the State there were nearly 800 negro magistrates; and that, taking the State at large, nearly 1,000 negroes were holding office. On Oct. 26 Gov. Russell (Republican) issued the following proclamation:

"Whereas, The Constitution of the United States secures to every State in this Union a republican form of government, protection from invasion, and freedom from domestic violence; and

"Whereas, The Constitution of North Carolina guarantees to all the people of the State the inherent right to fully regulate their own internal government; to peacefully assemble for the purpose of consulting for their common good; to hold peaceable and quiet elections; and to discharge and exercise in an orderly and quiet way the manifold duties and privileges of good citizenship; and

"Whereas, The Constitution of this State, and the laws made in pursuance thereof, forbid that any citizen shall be deprived or restrained of his liberty but upon indictment for and conviction of crime; and

"Whereas, It is ordained in the same Constitution and laws of this State that the writs for the protection of the citizen, and the processes of the courts for the protection of society, shall never be suspended, neither by usurping executive nor by turbulent mobs using the weapons of intimidation and violence; and

"Whereas, It has been made known to me, by the public press, by numerous letters, by the oral statement of divers citizens of the State, and by formal written statements, that the political canvass now going forward has been made the occasion and pretext for bringing about conditions of lawlessness in certain counties in this State, such, for example, as Richmond and Robeson counties; and

"Whereas, It has been made known to me, in such a direct and reliable way that I can not doubt its truthfulness, that certain counties lying along the southern border of this State have been actually invaded by certain armed and lawless men from another State; that several political meetings in Richmond and Halifax counties have been broken up and dispersed by armed men, using threats, intimidation, and, in some cases, actual violence; that in other cases property has been actually destroyed and citizens fired on from ambush; that several citizens have been taken from their homes at night and whipped; that in several counties peaceful citizens have been intimidated and terrorized by threats of violence to their persons and their property, until they are afraid to register themselves, preparatory to exercising that highest duty of a freeman, the casting of one free vote at the ballot box for the men of their own choice in the coming election:

"Now, therefore, I, Daniel L. Russell, Governor of the State of North Carolina, in pursuance of the Constitution and laws of said State, and by virtue of authority vested in me by said Constitution and laws, do issue this, my proclamation, commanding all ill-disposed persons, whether of this or that political party, or of no political party, to immediately desist from all unlawful practices and all turbulent conduct, and to use all lawful efforts to preserve the peace, and to secure to all the people the quiet enjoyment of all their rights of free citizenship.

"And I do further command and enjoin it upon all good and law-abiding citizens not to allow themselves to become excited by any appeals that may be made to their passions and prejudices by the representatives of any political party whatsoever; but to keep cool heads, and use their good offices to preserve the public peace, and to protect every, the humblest citizen, in all his rights, political and personal.

"And I do further command and enjoin it upon all judges and other civil magistrates, and upon all solicitors, sheriffs, and other officers of the law, to use their best efforts under the Constitution and laws of the State to apprehend and bring to speedy trial all offenders against the persons and property and the political and civil rights of any and all persons in this State whomsoever.

"And I do further command and require that all persons who may have entered this State from other States, in pursuance of any unlawful purpose, instantly to disperse and leave this State, upon pain of being arrested and dealt with according to law."

A mass meeting, attended by more than 8,000 persons, was held in the public square in front of the Wayne County courthouse, at Goldsboro, on Oct. 28, when the following preamble and resolutions were adopted:

"We, a portion of the citizens of eastern North Carolina, in mass meeting assembled, being mindful of the obligations we are assuming, and being desirous of informing our fellow-citizens of the condition of affairs in our section of the State, do publish to the world the following plain statement of facts:

"1. The population of this section of our State is divided into two distinct races—the Anglo-Saxon and the African.

"2. That in some counties the whites exceed the blacks, and in others the blacks largely exceed the whites, but in all of them the negro is found in large numbers.

"3. It is not claimed, even by his white leaders, that the negro is capable of administering a government. On the contrary, the man who is the present Republican Governor of the State has declared, in the most emphatic language, that he is wholly unfitted for it.

"4. That in many of the counties, cities, and towns of eastern North Carolina the local governments have been turned over, wholly or in part, to the negroes. Among these we mention Bertie, Craven, Edgecombe, Halifax, New Hanover, Warren, Greenville, New Berne, and Wilmington. In these counties, cities, and towns negroes may be found holding the offices of register of deeds, deputy sheriffs, constables, justices of the peace, school committeemen, town commissioners, policemen, and the like. In several other counties many of these offices are filled by negroes, and that many of the post offices are filled by them.

"5. That counting the offices of register of deeds, deputy registers, deputy sheriffs, constables, justices of the peace, school committeemen, town commissioners, policemen, postmasters, collectors, storekeepers, gaugers, and the like, there are now in office in counties and towns of eastern North Carolina nearly 1,000 negroes, there being nearly 300 negro magistrates alone.

"6. That as a consequence of turning these local offices over to the negroes, bad government has followed, homes have been invaded, and the sanctity of woman endangered. Business has been paralyzed and property rendered less valuable. The majesty of the law has been disregarded and lawlessness encouraged. In many localities men no longer rely upon the officers of the law for protection, for they are known to be incompetent or corrupt. Conditions have become so intolerable in these communities that they can be no longer tolerated or endured.

"7. That this negro domination was made possible, and these deplorable conditions were brought about, through a division of the white men at the ballot box. Had the white men remained together, as they did for many years, these things could not have been.

"8. That knowing these evils came about through a division of the white men, the White Man's party has been zealously working for months to reunite the white men at the ballot box, where these wrongs can be righted and these evils remedied.

"In view of these things, it is resolved:

"1. That the Republican leaders have a second time clearly demonstrated their inability and their unfitness to govern North Carolina.

"2. That the time has come when those who have followed these leaders should no longer do so, and that all men who love their State and their homes should unite in one supreme effort to redeem the State, and to place honest, capable white men in office in State, county, city, and town.

"3. That our appeal has been, is now, and shall continue to be to the ballot box and to honest white men. We have contemplated no violence, but we are determined to use all proper means to free ourselves of this negro domination, which is paralyzing our business, and which hangs like a dark cloud over our homes.

"4. That we declare it is not our purpose to do the negro any harm. It is better for him, as well as for us, that the white man shall govern; that while we propose to protect and encourage him in all his rights and duties of citizenship, we affirm that North Carolina shall not be negroized. It is, of all the States of the Union, peculiarly the home of the Anglo-Saxon, and the Anglo-Saxon shall govern it.

"5. That we affirm that no such conditions exist in this State as to justify Senator Pritchard in calling upon the President to send troops to this State, or the Governor in issuing his brutal proclamation, and we hereby condemn in the most unmeasured terms the conduct of Senator Pritchard and Gov. Russell in attempting to make it appear to the outside world that the descendants of the men of Mecklenburg, Halifax, Albemarle, the Cape Fear, of Alamance, Guilford Courthouse, and King's Mountain need the military power of the Government, which they helped to create and organize, to compel them to observe the law. The white men of this State, above all others, are interested in maintaining law and order, and for them to be charged by Senator Pritchard and Gov. Russell with having a purpose to become insurrectionary citizens is a vile slander, and we denounce them. They have been leaders in establishing negro domination among us, and they are therefore responsible for the conditions now existing, and in appealing to the President to send troops into this State to aid them in maintaining negro domination they have shown they care less for the honor and reputation of their State than they do for their official positions.

"6. That it is in the power of the Legislature to restore to the white men of eastern North Carolina the management and control of their local affairs; that if the Democratic party shall be placed in control of the Legislature this will be done. If the Republican party is placed in control it will not be done. We therefore appeal to our white brethren in every section of the State to go to the ballot box on the day of election and vote for the Democratic candidates for the Legislature.

"7. That a learned and pure judiciary is necessary to the preservation of the rights of the weak as well as the strong. The Democratic candidates for this high position are men learned in the law, and of eminent fitness for this great office. We therefore appeal to all white men who desire learned and pure men to sit upon the bench to work and to vote for Democratic candidates."

The State election, held Nov. 8, resulted in a Democratic victory, that party's majority being more than 19,000. Seven Democratic Congressmen

were elected and 2 Republican. In the State Senate of 1897 the Democrats had 7 and the Fusionists 43; this election gave the Democrats 43 and the Fusionists 7, just reversing the figures. In 1897 there were 30 Democratic members of the House and 90 Fusionists; the numbers were changed to 94 Democrats and 26 Fusionists. On the day after the election, Nov. 9, a mass meeting, attended by about 1,000 persons, was held in Wilmington, which unanimously expressed itself as follows:

"Believing that the Constitution of the United States contemplated a government to be carried on by an enlightened people; believing that its framers did not anticipate the enfranchisement of an ignorant population of African origin, and believing that the men of the State of North Carolina who joined in forming the Union did not contemplate for their descendants a subjection to an inferior race;

"We, the undersigned, citizens of the city of Wilmington and county of New Hanover, do hereby declare that we will no longer be ruled, and will never again be ruled, by men of African origin. This condition we have in part endured because we felt that the consequences of the war of secession were such as to deprive us of the fair consideration of many of our countrymen.

"We believe that, after more than thirty years, this is no longer the case.

"The stand we now pledge ourselves to is forced upon us suddenly by a crisis, and our eyes are open to the fact that we must act now or leave our descendants to a fate too gloomy to be borne.

"While we recognize the authority of the United States, and will yield to it if exerted, we would not for a moment believe that it is the purpose of more than 60,000,000 of our own race to subject us permanently to a fate to which no Anglo-Saxon has ever been forced to submit.

"We, therefore, believing that we represent unequivocally the sentiment of the white people of this county and city, hereby for ourselves, and representing them, proclaim:

"1. That the time has passed for the intelligent citizens of this community, owning 95 per cent. of the property and paying taxes in like proportion, to be ruled by negroes.

"2. That we will not tolerate the action of unscrupulous white men in affiliating with the negroes so that by means of their votes they can dominate the intelligent and thrifty element in the community, thus causing business to stagnate and progress to be out of the question.

"3. That the negro has demonstrated, by antagonizing our interest in every way, and especially by his ballot, that he is incapable of realizing that his interests are and should be identical with those of the community.

"4. That the progressive element in any community is the white population, and that the giving of nearly all of the employment to negro laborers has been against the best interests of this county and city, and is a sufficient reason why the city of Wilmington, with its natural advantages, has not become a city of at least 50,000 inhabitants.

"5. That we propose in future to give to white men a large part of the employment heretofore given to negroes, because we realize that white families can not thrive here unless there are more opportunities for employment for the different members of said families.

"6. That the white men expect to live in this community peaceably, to have and provide absolute protection for their families, who shall be safe from insult from all persons whomsoever. We are prepared to treat the negroes with justice and consideration in all matters which do not involve sacrifices

of the interest of the intelligent and progressive portion of the community. But we are equally prepared now and immediately to enforce what we know to be our rights.

"7. That we have been, in our desire for harmony and peace, blinded both to our best interests and our rights. A climax was reached when the negro paper of this city published an article so vile and slanderous that it would in most communities have resulted in the lynching of the editor. We deprecate lynching, and yet there is no punishment provided by the laws adequate for this offense. We therefore owe it to the people of this community and of this city, as a protection against such license in future, that the paper known as the "Record" cease to be published, and that its editor be banished from this community.

"We demand that he leave this city within twenty-four hours after the issuance of this proclamation; second, that the printing press from which the "Record" has been issued be packed and shipped from the city without delay; that we be notified within twelve hours of the acceptance or rejection of this demand. If the demand is agreed to within twelve hours, we counsel forbearance on the part of all white men. If the demand is refused, or if no answer is given within the time mentioned, then the editor, Manly, will be expelled by force."

The offensive article alluded to in the seventh section of the foregoing proclamation, which appeared in the daily "Record" of Aug. 18, read as follows:

"We suggest that the whites guard their women more closely, as Mrs. Felton says, thus giving no opportunity for the human fiend, be he white or black. You leave your goods out of doors, and then complain because they are taken away. Poor white men are careless in the matter of protecting their women, especially on farms. They are careless of their conduct toward them, and our experience among poor white people in the country teaches us that the women of that race are not any more particular in the matter of clandestine meetings with colored men than are the white men with colored women. Meetings of this kind go on for some time, until the woman's infatuation or the man's boldness bring attention to them, and the man is lynched for rape. Every negro lynched is called a 'big, burly, black brute,' when, in fact, many of those who have thus been dealt with had white men for their fathers, and were not only not 'black' and 'burly,' but were sufficiently attractive for white girls of culture and refinement to fall in love with them, as is well known to all."

A committee of 25 citizens was appointed to execute the provisions of the foregoing resolutions. There was a conference between the committee and a number of influential negroes of the city, at which it was agreed that the negroes should report to the committee at 7 A. M. the next day as to whether or not Editor Manly would comply with the requirements of the resolutions. If he did not, the white men proposed to go in full force at 8 A. M., destroy the newspaper plant, and expel the editor. Their demand appearing not to be acceded to at 8.30 o'clock 600 armed citizens went to the offensive newspaper office and proceeded to destroy the material. While the destruction was in progress the building "took fire" and was burned to the ground. It developed later in the day that the negro committee had used their influence to have the press, etc., removed, although the editor had disappeared and they had no authority in the premises. A letter from them, instead of being delivered to the chairman of the committee of 25 in person, was put into the mail, and did not reach him until three hours after the expiration of the

time limit which had been fixed for the receipt of an answer. Incensed at the destruction of the newspaper office, a large number of negroes assembled, and a bloody clash between whites and blacks ensued. Twelve negroes were killed during the day, and three white men were wounded. In the afternoon the Republican mayor, the board of aldermen, and the chief of police resigned their offices, and they were superseded by white Democrats, ex-Congressman Alfred Moore Waddell, who led the assault on the newspaper office, being chosen mayor. The first act of the new city government was to swear in 250 special policemen, chosen from the body of white citizens. Troops were ordered out, and the city was placed under martial law.

On the evening of the 10th a crowd formed to take from the jail and lynch two negroes. Mayor Waddell prohibited the assembling of the crowd at the jail, himself heading a guard of men with Winchester to protect the prisoners. He subsequently issued a proclamation, saying:

"The undersigned, upon whom has been placed the great responsibility by the action of his fellow-citizens, takes this method of assuring the good people of this city that all the power with which he is invested will be exerted to preserve order and peace in this community, and that power is amply sufficient for the purpose. All well-disposed persons are earnestly requested to co-operate with the municipal authorities in every way possible to secure the permanent establishment of good government. The law will be rigidly enforced and impartially administered to white and black people alike."

The expulsion of objectionable characters from Wilmington was thus described by a correspondent of the Raleigh "Farmer and Mechanic," under date of Nov. 11:

"The good work began last night with G. Z. French, a white carpet-bagger. He was waited on at his room at the Orton House by a committee, escorted to the train by a squad of militia with fixed bayonets, and put on the train with the injunction to leave North Carolina and never return again upon peril of his life. It is believed he has gone to Washington. So intense was the bitter feeling against French that after he reached the station a rope was thrown over his head, and several strong men were in the act of swinging him to an overhanging beam, when influential citizens interfered and with difficulty prevented the lynching. French has been acting sheriff here for some time, Hewlett being only a figurehead. Early this morning the work of banishment was resumed, when a squad of soldiers, under command of Lieut.-Commander George L. Morton, escorted the negro leaders, Tom Miller, Pickens, Bell, Aaron Bryant, and Rev. I. J. Bell to the station, put them on board the north-bound train with instructions to leave North Carolina and never return. They had tickets to Richmond. These negroes were among those arrested and put in jail Thursday for firing on white men and for urging other negroes to deeds of violence. The next exit were Trial Justice R. H. Bunting, ex-Chief of Police John R. Melton, Charles McAlister, Isaac Loftin, colored, and ex-Policeman C. H. Gilbert. They, like French and the negro leaders, were drummed out of town under an escort of soldiers."

Democratic jubilees were held in Raleigh and other cities of the State to celebrate redemption from negro rule.

NORTH DAKOTA, a Northwestern State, admitted to the Union Nov. 3, 1889; area, 70,795 square miles. The population in 1890 was 182,719. Capital, Bismarck.

Government.—The State officers during the year were as follow: Governor, F. B. Fancher; Lieu-

tenant Governor, J. M. Devine; Secretary of State, Frederick Falley; Treasurer, D. W. Driscoll; Auditor, A. N. Carlblom; Attorney-General, John F. Cowan; Adjutant General, Elliott S. Miller; Superintendent of Public Instruction, John G. Halland; Commissioner of Insurance, G. W. Harrison; Commissioner of Agriculture, H. U. Thomas; Bank Examiner, H. A. Langlie; Railroad Commissioners, John Simons, Henry Erickson, Luke L. Walton; Justice of the Supreme Court, N. C. Young; Associate Justice, J. M. Bartholomew; Board of Dental Examiners, President, R. B. Foster; Land Commissioner, Hugh J. Watt—all Republicans.

Finances.—The Treasurer's report for the six months ending June 30 showed that the balance in all funds at the beginning of the year was \$370,209.60; total receipts from Dec. 31, 1897, to June 30, 1898, \$1,112,407.80; total disbursements, \$866,587.11; valuation of personal property, \$22,929,831; number of persons assessed, exclusive of firms, 36,910; valuation of real estate, \$65,458,290; number of acres taxed, 17,223,634; valuation of railroad property, \$12,869,350; total redemption of school district bonds held by permanent school fund, \$23,858.72; cash on hand June 30, \$245,820.60; amount of bonded indebtedness at close of fiscal year, \$199,492.54, or within \$507.46 of the debt limit provided for by the State Constitution. Refunding bonds to the amount of \$112,000, dated May 1, 1897, to run thirty years without option at 4 per cent. interest, were advertised and sold Feb. 24, 1897, to refund Capitol-building warrants to the amount of \$63,000, bearing 5 per cent. interest; Penitentiary bonds to the amount of \$29,000, bearing 4½ per cent.; and \$20,000 university bonds, bearing 4½ per cent. interest, the issue being sold at a premium of \$1,340.

Banks.—On May 5 there were 87 State banks, with total resources of \$5,700,198.37, of which \$512,688.45 was cash. Two applications for charters were waiting the action of the Secretary of State on Dec. 9, 1898. In the 25 national banks the total deposits from Dec. 9, 1897, to Feb. 15, 1898, was \$5,493,911; total loans and discounts, \$4,297,239; average reserve, 32.46 per cent.; holdings of gold coin, \$227,390, an increase of \$5,000 in three months. The First National Bank at Larimore closed its doors in January because of slow collections and being unable to meet the demands of withdrawal. Bonds to secure the deposits in the 5 banks that suspended in 1896 and 1897 were filed according to law, and were amply sufficient to cover any loss; amount on deposit at time of suspending, \$78,483.16; received in dividends, \$14,968.04; total balance due, \$63,515.12.

The increase of business during the last two fiscal years by the 7 building and loan and savings associations of the State was \$70,345.54; total increase of assets, \$45,758.51.

Railroads.—The number of miles of main line, Aug. 2, was 1,244,153; of branch line, 1,278,241; of side track, 295,706; total mileage, 2,866,987; valuation, \$12,869,350, against \$8,619,450 in 1897; aver-



FREDERICK B. FANCHER,
GOVERNOR OF NORTH DAKOTA.

age valuation per mile, \$5,000, against \$3,300 in 1897. The directors of the Great Northern Railroad voted an increase of 1 per cent. in the dividends of the road, thus making 7 per cent. per annum instead of 6 per cent. as in 1897. The increase of total income during the year was \$7,114,501, and in net earnings \$3,904,972. The total increase in earnings of the Northern Pacific for the year was \$4,667,531.

Insurance.—The report of 41 fire and fire and marine insurance companies doing business in the State gave the amount of risks written during the year as \$24,840,517.76; premiums received, \$491,330.38; losses incurred, \$466,649.60; losses paid, \$326,382.41; total admitted assets, \$174,988,607.74; total liabilities, not including capital, \$85,794,418.66; total income, \$92,606,923.50; total expenditures, \$79,800,520.82.

The 14 life insurance companies reported the number of policies issued during the year as 1,252; amount, \$2,129,502; total premiums received, \$338,422.59; losses incurred, \$65,187.35; total admitted assets, \$1,022,897,643.68; total liabilities, except capital, \$873,760,699.44; total dividends paid, \$420,750. The total amount written by the assessment life insurance companies for the year was \$924,030.50; total losses incurred, \$29,000; losses paid, \$22,200; total assets, \$8,992,750.87; total liabilities, \$2,738,142.09. The amount of risks written by the accident, fidelity, and other liability companies was \$3,407,947.48; total admitted assets, \$72,218,557.43; total receipts, \$14,433,845.42; total disbursements, \$13,308,122.38.

Education.—The total number of children in the State for whom appropriation of school tuition was made was 76,651; total number of school-houses, 2,304; number of teachers employed, 3,637; warrants issued for school purposes, \$1,585,934.17; total valuation of school property in the State, \$2,132,738.91. The permanent school fund of \$1,000,000 is invested in bonds and other securities, the interest of which is quarterly apportioned to the different school districts of the State. The Burleigh County Summer School, as provided by the Department of Public Instruction, began Aug. 8 and remained in session till Aug. 28, with great benefit to the teachers of the State.

The number of well-equipped boarding schools reported by the Commissioner of Indian Affairs was 147; of day schools, about the same; total number of pupils, 23,952; increase in average attendance of Government schools, 1,238; decrease in sectarian and public schools, 301; allowance *per capita* of contract schools, \$10.

State Institutions.—The biennial report of the trustees and officers of the Hospitals for the Insane detailed the unsatisfactory working of the law passed by the Legislature authorizing the issuing of \$40,000 in bonds to be guaranteed by the lands of the institution. The lands were sold at a good premium, but the sale was found to be unconstitutional. The board urged the Legislature to make provision for building funds, and recommended the erection of a cold-storage building to cost \$1,000, and also the purchase of the 25 acres of land which have been rented hitherto for raising vegetables. The amount appropriated for the period March 1, 1897, to June 30, 1898, was \$38,835.52; estimated appropriation for the next biennial term, \$112,500. The superintendent reported that the overcrowded condition of the institution was a great drawback to the welfare of the patients. The report showed the average population to be 336; the cost of keeping each patient per week, \$3.34; number of patients admitted in the last two years, 225; discharged, 140; died, 68; number admitted of foreign birth, 143; natives, 67; nativity unknown, 15.

The number of prisoners in the Penitentiary April 6, 1897, was 105; number on April 6, 1898, 138; on May 16, 143, or within 17 of the entire capacity of the cell house. The barn on the grounds was destroyed by fire Oct. 9, with a total loss on building and contents of \$3,000. The amount of insurance was \$2,000. A warden's residence has been built with the \$3,000 appropriated by the Legislature of 1897, and a part of the yard wall has been erected. The receipts for the biennial period were \$7,114.05, all of which have been expended. The average monthly number of officers and employees was 25; of prisoners, 119; number of prisoners received in 1897-'98, 152; actual citizen residents, 63; non-residents, 84; temperate, 39; intemperate, 113; use tobacco, 126; convict population, June 30, 1899.

The eighth annual report of the Agricultural College gave the three principal subjects of research by the department of science as waters, soils, and fodders. The experiments with well waters revealed a large amount of solid matter, and in several instances kidney trouble of a serious nature was traced directly to the use of the water. The experiments with sugar beets, by 36 farmers who were chosen to make the tests, were unsuccessful because of the unfavorable season, and the experiments will be continued another year. The station has experimented with 105 varieties of wheat in the past five years. It has secured the best results from Experiment Station Fife, which for four years has yielded 22 bushels to the acre. Red Fife and 774 Glyndon have averaged nearly the same. The dairy department received 100,776 pounds of milk in the year; 60,557 pounds of cream, containing 14,877 pounds of butter fat, for which was received \$2,597.24.

By a large number of field and laboratory tests the chemist of the college has succeeded in finding a substance in formalin which will kill the smut spores without doing any injury to the germinating powers of the grain. The chemist declares that 1 pound of formalin to 50 pounds of water sprinkled thoroughly over the grain piled upon the floor of the barn in such a way that every grain is wet, will prevent the smut. When properly treated, oats take up about 2½ gallons of water per bushel and wheat about 1½ gallon.

The report of the university shows that \$127,120 will be needed for permanent improvements during the ensuing two years, and \$11,506.21 for deficiency on account of repairs and salaries. The industrial school at Ellendale has sold bonds to the extent of \$14,700, the proceeds to be used in erecting a building the foundation of which has been completed.

The School of Forestry has not yet begun active operations. The number of pupils enrolled in the School for the Deaf was 50, an increase of 3 over 1897 and of 16 over any other previous year.

Agriculture and Labor.—The result of investigation by the Department of Agriculture shows that the people of the State have paid off several million dollars of mortgaged debts during the year. On Jan. 14 an inquiry was sent to the register of deeds of each county, and the report from 10 counties gave the total amount of liquidation of chattel mortgages as \$1,042,347, a net gain over 1897 of \$292,244. The total expense to the office of Commissioner of Agriculture for publishing the annual proclamation of the free-storage and wool-market days was \$193.25, and thousands of dollars are saved to the wool growers by reason thereof. The number of sheep sheared in 1897 was 234,541; number of pounds of wool clipped, 1,382,230. There were 919,493 tons of prairie hay cut during the year. The 67 flouring mills of the State are furnished with the most approved machinery and ap-

pliances. To the circulars sent to 54 creameries and cheese factories only 23 responded, and of these 10 had suspended operations. Two licenses for the sale of oleomargarine were held within the State during the fiscal year. The number of tons of coal mined in the 48 mines operated was reported as 35,742; number of men employed, 151; wages paid, \$8,644. The total number of farms reported was 31,653; acres under cultivation, 5,587,849; total number of acres in crops, 5,337,178; total product of wheat, 35,758,346 bushels; of oats, 11,490,888 bushels; acres of oats sown, 638,929; total product of barley, 3,655,942 bushels; acres of barley sown, 231,896; total product of flax, 1,956,205 bushels; acres sown, 399,900; rye, 281,876 bushels; sown, 27,750 acres; corn, 479,804 bushels; acres planted, 57,829; potatoes, 1,711,820 bushels; acres planted, 22,395.

Live Stock.—The total number of horses of all ages was reported as 216,519, assessed value \$6,814,918; number of mules, 3,862, value \$143,904; cattle, 280,011, value \$3,547,743; sheep, 267,050, value \$396,767; swine, 78,010, value \$146,270; total valuation of all live stock, \$11,079,805.

Land Sales and Loans.—There are 2,580,480 acres of common-school lands in the State, not including the 500,000 acres granted by the United States for the benefit of public institutions. Of these school lands, 32,420 acres were sold, for which the first payment was \$463,480, and the second payment \$305,000; interest received on deferred payments, \$174,365; total revenue, \$942,845. About 20,000 acres a month have been taken up by settlers distributed over the whole district. On Dec. 31, 1897, there was in the permanent school fund, under a provision of the farm-loan law, the sum of \$250,000, about \$60,000 of which was deposited in suspended banks and unavailable for immediate use. Since the land law went into effect there have been applications for farm loans aggregating \$167,265; of this sum \$20,250 has been withdrawn or refused, and \$110,615 has been invested in farm loans during the year. The sales of land in January of the present year amounted to \$245,000, as against \$78,000 in January, 1897. In February there were sold \$175,000, against \$58,000 last year. Hay permits on the common-school lands were sold to the amount of \$4,560.50, and on institution lands to the amount of \$1,474.25.

Immigration.—The increase in the population of the State is steady and continual. Of the 33,000 skilled laborers that came to this country during the past year, 70 emigrated to this State; of the 16,243 farmers, this State had 360; of the 52,000 unskilled laborers of all nationalities, North Dakota had 262. The Great Northern Railroad brought 1,800 Dunkards to the settlements in the Turtle mountain country.

Veterinary.—The work of the veterinary department showed the use of mallein as a diagnostic agent in detecting glanders, the use of tuberculin for the diagnosis of tuberculosis, and the use of blackleg vaccine for the prevention of blackleg in cattle. The 3,000 doses of blackleg vaccine administered gave excellent results; not a single animal suffering from the disease and vaccinated was lost, though non-injected animals in the same herd died.

Rabies.—The first outbreak of hydrophobia in the State began Aug. 1, when a shepherd dog bit several cattle in the vicinity of Bartlett. On Aug. 20 several animals developed signs of rabies, and were destroyed. Two human beings were bitten by the dog, but took Pasteur treatment and suffered no discomfort.

Tornado.—On July 22 a tornado struck the town of Minot, demolished 17 buildings, and injured several people. The hail following destroyed about 25,000 acres of grain in the vicinity of Casselton.

Pier Moved.—The east pier of the Northern Pacific bridge at Bismarck was moved to new foundations, May 29. The solid mass of granite, weighing more than 9,000,000 pounds, quivered, trembled, slid forward a distance of 2 feet 9 inches in less than a minute, and rested safely on its new base. The work of preparation for its removal occupied eight months.

Fire.—On Aug. 8 a disastrous fire visited Bismarck and destroyed much property. The Northern Pacific granted a free rate for the transportation of building material, and the burned section was rapidly rebuilt.

Indians.—There are about 1,500 Indians on the Fort Totten reservation, 400 of whom hold land from the Government. The State's Constitution provides that Indians shall become residents when they have severed tribal relations, and have taken land in severalty from the Government. According to a decision of the Supreme Court, 300 of these Indians who hold Government land are citizens of Benson County and as such are entitled to vote and to be treated in every way as full residents of the county.

Yellowstone Park.—The number of tourists visiting the park from June 1 to Aug. 20 was 720. On Aug. 14 six of the transportation company's coaches and one United States wagon were held up by two well-armed, masked highwaymen, who obtained \$500 in plunder. The robbers were arrested Aug. 29. The estimated number of buffalo in the park was 24. The coyotes were numerous and killed 75 from a herd of 500 antelopes that ventured on the slopes of Mount Everts.

Wolf Tax.—The number of wolves killed, according to registered certificates, was 8,000; amount of bounty, \$24,000. The amount of wolf tax to be collected from the counties was \$9,000.

Military.—For the expenses in connection with the mobilization of State troops a statement has been prepared giving the amount of officers' pay as \$887; of rejected soldiers, \$675.95; band, mileage, and *per diem*, \$263.20; for equipment of men, \$2,096.86; for subsistence, \$3,296.52; total, \$10,021.18.

The organized strength of North Dakota, April 1, 1898, as given by the Adjutant General, was: Officers, 54; enlisted men, 498; number of men unorganized but available for military duty, 19,937. The entire National Guard volunteered their services at the call of the President, but only 8 of the infantry companies could be accepted. The troops ordered from Fort Yates belonged to an historic organization. The Second Regiment, dating its birth from the days of the Continental army, with Gen. Washington in command, has seen service in all the wars, and has had among its officers many generals.

Prohibitory Law.—One of the ways by which the prohibitory law has been evaded was by the shipment of packages of beer or liquor C. O. D. Many of these packages were shipped to fictitious addresses. One such package was not called for and finally was delivered to a man who paid the charge. When opened the package was found to contain alcohol. The case was taken up by the Prohibitionists, and the railroad agent was arrested for violating the law. The agent claimed ignorance of the contents of the package, but the judge charged the jury that "every person or corporation who assumes to act for another as its agent in the transmission of intoxicating liquors, and who receives the same by the method known as packages C. O. D., is bound to know, at his peril, the contents of such package." The jury found the agent guilty.

Decisions.—The Supreme Court, at its April session, decided that failure to file a chattel mortgage does not render it void as against the mort-

gagor. It also handed down the decision that costs can not be recovered in a disbarment case by either party in the absence of express legislative authority. At its May session the court advised district courts to look after divorce residences, and declared that the term residence must be construed to mean "domicile" in divorce cases, and held what the law specifies that applicants for divorce must be *bona fide* residents of the State by an actual three months' residence therein; and that when other occupation has never been given up, "the lack of *bona fide* residence is patent" and the court must throw out the case on statutory grounds.

In the case of the widow of an intoxicated man who died from exposure after having been put off the train, the court held that when the Northern Railroad accepted the intoxicated man as a passenger it was bound to exercise due care in looking out for his welfare, and that the widow is entitled to recover damages for his death, caused by cold and exposure from being put off the train and then ejected from the station by the station agent, thus being compelled to remain in the cold till he died.

In the Cavalier County case, where the Secretary of State refused to place the names of the Democratic nominees in the column with the fusion State ticket, the court decided that the Secretary must certify to the nominations as filed with him. It defined the duties as "ministerial, and not judicial." It further said: "The Secretary is a disinterested party. He has no duty to perform touching such nominations, except to certify them to the proper auditor. If improper nominations have been filed, any citizen interested may apply to a court of competent jurisdiction, where all the facts can be speedily and certainly investigated; and if nominations other than as prescribed by statute have been filed with the Secretary, that officer may be enjoined from certifying the same to the county auditors. But if no such restraining order be served, it is the duty of the Secretary to certify all nominations, proper certificates of which have been filed in his office."

The court decided that roundhouses and other railroad property on the right of way are included in the assessment of the State board, and can not be again assessed by county assessors.

The decision was handed down that county auditors may issue warrants for the current expenses of the county after the constitutional debt limit has been reached, in anticipation of the tax already levied, though not yet collected, and that such warrants do not augment the existing indebtedness within the meaning of the Constitution.

On June 8 a decision in the case involving North Dakota lands over which the railroad's right of way was protested declared that neither the city of Bismarck (as owner of the town site) nor the grantee could, under the facts shown, disturb the possession of the railroad company in its right of way extending 200 feet on each side of its road. The case involved about \$60,000, and has been in the courts for a number of years.

An important decision was filed in the Fargo Land Office, setting forth the status of a widow with minor children, and giving her the right to dispose of the homestead.

In the matter of the State against the North Dakota Railroad rate, the court decided that capital has a right to proper remuneration, and that the State failed to show that the railroad rates returned more than a proper income on the capital invested.

Political.—The Republican State Convention met at Fargo, July 20, and nominated a full State ticket. The most notable feature of the proceedings was the plank relating to higher taxation of railroad property, the resolution being as follows:

"We believe in just and equal taxation of all private and corporate interests, and pledge our State Board of Equalization to a higher assessment of railroads than has heretofore obtained in the State." In the matter of prohibition the convention pledged the people "that no backward step should be taken in the maintenance and enforcement of the prohibition law." The following nominations were made: For Governor, F. B. Fancher; Lieutenant Governor, J. M. Devine; Secretary of State, Frederick Falley; Auditor, A. N. Carlblom; Supreme Judge, N. C. Young; Treasurer, D. W. Driscoll; Superintendent of Public Instruction, J. G. Halland; Commissioner of Insurance, G. W. Harrison; Attorney-General, John F. Cowan; Railroad Commissioners, Luke L. Walton, John Simons, and Henry Erickson; Congressman, B. A. Spalding.

The Democratic and Populist State conventions met at Fargo, July 12. The Democrats approved the Chicago platform; and on the conduct of the war against Spain the convention declared: "We rejoice in the glorious achievement of our army and navy, whose magnificent victories, participated in by citizens of every State in the Union, have added imperishable luster to our arms, swept away the last vestige of sectionalism in our country, and revealed us to the world a united people." The platform charged the Republican party with neglect and betrayal of their official duties; demanded greater economy in State expenses; a more stringent system in investing and guarding the school funds; and that the valuation of railroad and other corporate property be raised to a just and reasonable basis, as compared with farm lands and other taxable property.

The Populists adopted a platform that was a combination of the platforms of St. Louis and Omaha. The joint conference committee reported in favor of calling the new party "Independent Democratic," which name the Democrats adopted after much opposition. The Populists debated many hours upon the adoption of the name, but accepted it finally.

The fusion committee of Democrats and Populists placed the following ticket in the field: For Governor, D. M. Holmes; Lieutenant Governor, W. A. Bentley; Secretary of State, Samuel Torgerson; Auditor, C. G. Bade; Treasurer, Thomas Bolton; Attorney-General, S. B. Bartlett; Superintendent of Public Instruction, C. C. Schmitt; Insurance Commissioner, W. M. Campbell; Commissioner of Agriculture, A. L. Whipple; Supreme Court Judge, C. J. Fisk; Railroad Commissioners, Robert Fleming, N. J. Bjornson, and H. L. Hevener.

The official returns were as follow: Governor, Fancher (Republican), 28,308; Holmes (Independent Democrat), 19,496. Judge, Young (Republican), 27,989; Fisk (Independent Democrat), 18,400. Lieutenant Governor, Devine (Republican), 28,703; Bentley (Independent Democrat), 17,282. Secretary of State, Falley (Republican), 28,143; Torgerson (Independent Democrat), 17,516. Auditor, Carlblom (Republican), 28,165; Bade (Independent Democrat), 17,480. Treasurer, Driscoll (Republican), 28,946; Bolton (Independent Democrat), 16,843. Attorney-General, Cowan (Republican), 28,768; Hildreth (Independent Democrat), 17,064. Superintendent of Public Instruction, Halland (Republican), 27,805; Shafer (Independent Democrat), 25,803. Commissioner of Agriculture, Thomas (Republican), 28,334; Whipple (Independent Democrat), 16,783. Commissioner of Insurance, Harrison (Republican), 27,764; Campbell (Independent Democrat), 17,311. Commissioners of Railroads (Republican), Walton, 27,249; Erickson, 27,567; Simons,

26,971; against (Independent Democrat) Bjornson, 16,731; Hevener, 17,027; Fleming, 17,061.

The Legislature stands as follows: Senate, 22 Republicans to 9 Democrats and Populists; Assembly, 55 Republicans to 16 Democrats and Populists.

NORTHWEST TERRITORIES OF CANADA.

These immense Territories passed in 1898 through the last stages of development into full self-government. From 1870 to 1875 they were governed as a part of Manitoba; from 1875 to 1880 by a lieutenant governor appointed by the Dominion Government and a council similarly appointed; from 1880 to 1888 by a council partly elected and partly nominated; from 1888 to 1897 by a lieutenant governor, executive council, and assembly, with all provincial rights except that of borrowing money. By an act coming into force on Oct. 1, 1897, full responsible government was finally granted. Mr. F. W. G. Haultain had acted as chief adviser, or Premier, to the Lieutenant Governor through the various stages between 1888 and 1897, and he naturally became Premier under the final changes in the latter year, with the following ministry: Messrs. J. H. Ross, H. Mitchell, C. A. Magrath, G. H. V. Bulyea. In addressing a public meeting at Moose Jaw, on Oct. 14, 1897, Mr. Haultain made the following historical reference to this development:

In asking the meeting to consider the history of the last six years, he asked them to consider that the members of the Assembly, of the executive committees of the Assembly—and that meant to a certain extent, at least so far as the business and condition of that fight were concerned, members of the present Government—were directly concerned with the struggle for the control of the affairs of the Territories by the people's representatives. Every year something had been done, some new power had been gained. Their jurisdiction had been extended, small increases of money had been secured until—taking the federal acts of 1891, 1894, 1895, 1896, and finally the crowning act of 1897—there was established a fully responsible form of government. Taking all those acts, there was a history of persistent effort finally rewarded, so that to-day they stood in the position not of a province with all its elaborate machinery, with all its terms of settlement with the Dominion of entrance into confederation, but in a position of having almost as large a measure of self-government and of autonomy as any of the provinces possessed. He thought that was a record of struggle and effort in the right direction which entitled them to a certain amount of credit and praise. There was one feature of this constitutional development he had been speaking about which was worthy consideration. That was, that it had been gradual; it had been progressive; it had been in keeping with the development of the Territories themselves. There had been no grasping after theoretical power, no simply claiming as rights things they did not want; there had been no saying, 'We want our jurisdiction extended in this direction and in that direction,' because some other places had it. It had been a steady, a distinct, a gradual, but certain development along the line of more definite control of their own affairs. There had been no radical change in any one year.

He protested against the introduction of federal politics into the new parliamentary system and elections which were to soon take place, and declared the Government's policy to be one of material development in the interest of the people and avoidance of all burning questions such as those involved in the racial, religious, and educational problems of the older provinces. Irrigation was to be encouraged, land taxation readjusted, agricultural societies promoted.

The last session of the old Assembly was opened on Aug. 16, 1898, by Lieut.-Gov. M. C. Cameron, with a speech, in which he said:

"I have to congratulate you upon the many evidences of prosperity which I have noted in such parts of the Territories as I have been able to visit recently, and also upon the marked advances to be seen in all communities since I first had the pleasure of visiting the West. From all parts of the country come uniform reports of substantial prosperity and splendid prospects for the farmer and the stock grower. These evidences of real prosperity, together with a largely increased immigration, point to the fact that the Territories have entered upon a period of unusually rapid growth and development.

"Since you last met the Parliament of Canada has cut off from the Territories the Yukon judicial district, for purposes of a separate administration. Before this was done my Government had taken steps to put into operation in that district such of the laws of the country as came directly within the scope of their responsibility. A member of the Executive Council, empowered with the necessary authority has spent several months in the Yukon district. One of the most important duties devolving upon my Government in connection with its administration of affairs in the Yukon district arose from the imperative and immediate necessity for regulating and restricting the importation and sale of intoxicating liquor. This work has been done with great care and consideration, and a statement of the action taken in this matter will shortly be laid before you.

"The revenue of the Territories has been increased beyond the estimate by a comparatively large sum, and you will be asked to appropriate several amounts required in the interests of the public service and the country.

"The commission appointed to consolidate the ordinances has intimated, through the chairman, a desire to have further legislation enacted in order to make its work as complete as possible, and in deference to that desire no action has been taken under the authority given at your last session to promulgate the consolidation of the ordinances. An opportunity will therefore be afforded you to include in the consolidation the whole of the work of this Assembly.

"The organization of the several departments of the public service authorized at your last session has engaged the attention of my Government during the recess. This work is now about completed in a satisfactory manner, notwithstanding a number of unforeseen hindrances. So far as is known, the whole of the Territories where the population warrants has been organized into statute labor districts during the year. Three hundred and forty-four new districts have been constituted, making the total number 401, with 4 districts in process of organization. Returns of the work done during the past season are now coming in, which show gratifying results. Before you close your labors a statement will be laid before you giving further details of the present position of statute labor districts.

"An important feature of the year's work has been the recording and reallocation of stock brands, which has been successfully carried on by the Department of Agriculture. I am pleased to announce to you that my Government has been able to make arrangements which, if ratified, will have the effect of enabling our stock raisers and agriculturists generally to take advantage of all that is being done in the eastern part of Canada to produce higher grades and better breeds of stock, and also to bring to their doors demonstrations of what is being discovered in advanced methods of culture in the growth

of cereals and other farm products suitable to the local conditions of each district.

"As a result of negotiations between my Government and the Minister of the Interior a bill was introduced and passed at the last session of the Federal Government, delegating the administration of the Northwest irrigation act to the Commissioner of Public Works. As a practical result of this legislation the procedure for obtaining and recording water rights under the provisions of the irrigation law has been largely simplified and rendered very much less expensive. As a further result of this legislation the procedure for the formation of irrigation districts under the local ordinance can be made comparatively simple and inexpensive, and a measure having that end in view will be submitted for your approval."

The time of the session was mainly taken up in discussion rather than in practical legislation. The address was unanimously agreed to on Aug. 22. It was decided that the consolidated ordinances were to be printed in English only. Much bitter feeling was expressed over the assumption of the Yukon district government by the Dominion authorities and its complete severance from the Territories. This was particularly observable in the debate over Mr. Bulyen's mission to the Yukon and his dispute with Major Walsh over their respective jurisdiction in liquor-license matters. Mr. Haultain even threatened to have the Dominion commissioner impeached. On the other hand, it was pointed out with considerable truth by Ontario papers that the Northwest Territories had no actual jurisdiction, could establish no communication with the country, could do nothing to maintain authority in it, and certainly ought not to have intervened in settling an important question of public policy for a country that was about to have a government of its own. Proceedings of that sort do not rest upon any very excellent ethical basis, and it could scarcely be regarded as a very friendly act on the part of the Northwest Government toward the Federal Government to issue a large number of permits to sell liquor in a country where disorder and mayhap riot were liable to take place, for the suppression of which the Northwest Government could not be held responsible.

On Sept. 13, 1898, Mr. Haultain introduced his estimates for the year ending Aug. 31, showing a total revenue of \$542,772, of which \$372,510 had been already appropriated, with supplementary expenses which he placed at \$163,975. The appointment of a deputy commissioner of agriculture was also announced. A redistribution bill was passed, rearranging constituencies, and late in September the House was prorogued. On Oct. 13 Lieut.-Gov. A. E. Forget, who had succeeded Mr. Cameron upon the death of the latter a few weeks earlier, dissolved the Assembly, and Mr. Haultain appealed to the people. The result on Nov. 8 was an overpowering victory for the Government. Only 4 or 5 Opposition members were elected, and even the leader, Dr. Brett, was defeated.

Miscellaneous.—The following figures illustrate the subjects upon which money was expended by ordinance during the sixteen months ending Dec. 31, 1898: Civil government, \$6,325; legislation, elections, etc., \$46,150; public works, \$65,611; education, \$26,850; agriculture, \$9,485; hospitals, etc., \$3,200; Yukon \$6,000.

During the year wide prosperity prevailed throughout the Territories, and the crops were excellent, while cattle and other products of the ranches increased in numbers and value. Many immigrants from the border States settled in parts of the country, while a large contingent of Galicians was brought in by the Dominion Department of the In-

terior—about 765 heads of families. Irrigation was largely encouraged. At the date of the last annual report of the Interior Department there were about 157 ditches in operation in the Territories, supplying water sufficient to irrigate 65,000 acres. The number of constructed ditches increased during the past year to 174, having a carrying capacity sufficient to irrigate 76,000 acres. The experimental stage of irrigation in the Territories may now be said to be passed, as the irrigated areas are so widely settled throughout the arid portion of the country, and the returns from these areas have been uniformly satisfactory during the past three seasons.

NOVA SCOTIA, an eastern province of the Dominion of Canada; area, 20,907 square miles; population, 1891, 450,396. Capital, Halifax.

Government and Politics.—The ministry of the Hon. G. H. Murray maintained its position during the year without much difficulty, and politics were quiet. Sir Charles Tupper, leader of the Dominion Conservatives, paid a visit to the province in September, and addressed several meetings in Halifax, and his constituency of Cape Breton chiefly. He was warmly welcomed and banqueted, and made some powerful speeches. The first session of the ninth Legislature was opened by Lieut.-Gov. M. B. Daly, on Jan. 27, 1898, with a speech from the throne, in which he said:

"During the year the people in the eastern counties were honored by an official visit from his Excellency the Governor General and the Countess of Aberdeen, who in their former visits to Nova Scotia had not been able to see that section of the province. The warm interest manifested by their Excellencies in everything connected with the industrial and social life of the country through which they passed was highly appreciated by the people, who accorded them the loyal and cordial welcome which was due to their personal worth and their exalted position.

"It is gratifying to know that there was a general improvement in the condition of trade in the Dominion during the past year. This improvement was most marked in the central and western provinces; but the maritime provinces have felt the betterment to some extent. In most of the great branches of industry in which our people are engaged there has been a firm degree of activity, and the prospect for the new year is very encouraging.

"You will be pleased to learn that the mining enterprises which form so large a factor in the business of our province were very successfully prosecuted during the year. The output of coal was larger than in any previous year of our history, and the outlook for further development in this industry is most promising. Not less gratifying is the increase to be noted in gold mining. In other parts of the Dominion important discoveries have been made which have created world-wide interest, but in Nova Scotia gold mining is pursued as an old-established industry which has yielded rich returns to many who have prosecuted it under favorable conditions, and which now offers a legitimate field for the investment of capital when accompanied by skill and prudence.

The provincial exhibition held at Halifax in the autumn was remarkably successful, both as respects the character of the exhibits and the attendance of visitors. The land acquired and the buildings erected for the exhibition were well adapted for their purpose, and with the experience of last year to assist them the commissioners in charge will, it is confidently believed, be able to carry on their work in such a manner as to fully realize the expectations on which the exhibition legislation was passed.

"The importance of encouraging the pursuit of

agriculture can not be too frequently impressed on our people. I commend to the particular attention of our farmers the facilities which are being provided for the conveyance of food products in cold-storage steamers, which bring within their reach distant countries which afford profitable markets. There are classes of this trade for which our province is well adapted, and I trust that our intelligent and enterprising farmers will avail themselves of the opportunities that are opening to them. While the cold-storage arrangements are regarded as of chief importance in their relation to agriculture, it is hoped that they may be used with advantage in our fishing industry also.

"The Coast Railway Company, who have contracted to construct a railway from Yarmouth to Lockport, have prosecuted their work with vigor, and now have 31 miles of road, extending within a short distance of the Shelburne County line, in regular and successful operation. A contract has been entered into with the Midland Railway Company for the construction of a railway from Windsor to Truro.

"The subject of certain claims of the province upon the Federal Government has engaged the attention of my ministers during the recess, and steps have been taken to bring these claims before the Federal authorities. A delegation has visited Ottawa recently for that purpose.

"Nearly thirteen years have elapsed since the last revision of our provincial statutes. It seems to be generally believed that it is in the public interest that a new revision should take place, and you will be invited to consider a measure having that object in view.

"Among other measures to which your attention will be invited are a bill to effect a reduction of interest by the consolidation of the unfunded debt of the province, a bill to amend the law respecting grand juries, and a bill relating to the distribution of insolvent estates."

The House adjourned on March 11, after passing a number of bills, of which the chief dealt with assignments and preferences by insolvent persons; with the consolidation of county court acts; with a proposed provincial loan for the funding of \$729,000 of miscellaneous indebtedness; with regard to grand juries; with amendments to the fire insurance act; with legislation to assist creameries, and to amend the municipal assessment act; with regard to certain annuities and the rights of civil engineers; with respect to the public health; and with the incorporation of certain railway, coal, iron, and other companies.

The Lobster Fisheries.—This industry is one of the most important in the maritime provinces. The export of canned lobsters from Halifax—75 per cent. of the whole shipment from the province—has amounted to \$21,000,000 in value during the past twenty-three years. This is half the lobster pack of British America and the world, as no other country cans lobster for export. Since 1884 the price per case has steadily risen from \$6, and in 1898 it reached \$10. Hence the importance of the business and of the following table:

DESTINATION.	Cases.	Value.
Great Britain (1876).....	47,086	\$296,966
United States.....	1,807	10,826
Other countries.....	35	1,958
	48,878	\$309,750
Great Britain (1896).....	119,643	1,016,965
United States.....	13,536	115,046
Other countries.....	32,364	275,094
	165,593	\$1,407,105

In 1897 the lobster pack shipped from Halifax amounted to 1,500,000 cases, valued at \$1,350,000. But then came a partial cessation in the supply. The Dominion Government promptly appointed a Royal Commission of Inquiry, composed of Prof. E. E. Prince, M. H. Nickeison, W. Whitman, and H. C. V. Le Vatte. Statistics and other facts were obtained, complaints heard, regulations considered, seasons, fishing year, etc., studied, and recommendations made regarding increase of supply. The commission met at different places throughout the province in October, 1898, but the report has not yet been made public.

Education.—In 1897 progress was general. The number of sections without schools was reduced from 171 to 153, and the schools increased from 2,312 to 2,346. The number of pupils of all grades increased from 101,082 to 101,158. The average daily attendance increased at a more rapid rate, the 54,015 of the previous year having become 54,922, indicating an increased attendance every day of 907. The number of teachers increased from 2,312 to 2,346; but much more promising for the future of education, the Normal-School trained teachers increased at a higher rate, the 690 of last year having become 752. The following extract from the report of the chief superintendent (1897) illustrates the kind of progress made:

"The numbers of trained teachers employed in the schools of the province during each of the last five years are as follow: In 1893, 403; in 1894, 499; in 1895, 616; in 1896, 690; in 1897, 752. This shows that gently but surely we are making steps in the direction of all the leading educational countries of the world which have already made professional training of a very thorough character necessary for all teachers. Our method of options appears to be well enough adapted to our present stage of development. It gives a chance, yet without any restrictions, to the impecunious student to earn money for his advancement to some profession; but it is also giving a chance to the trained teacher to remain in the teaching profession. That this change is going on so gradually and smoothly is the highest praise for the method. This programme will have to run for many years at this rate, however, before we shall be in this respect in the position of the leading states of Europe and America to-day.

"Although from the increase in the number and rank of our teachers the fixed provincial grant of \$182,500 caused the allowance to each to fall \$1.18 on each \$60, it is gratifying to know that trustees on the average have so much appreciated the improved character of the teachers that not only was this deficit made good by the sections, but more than made good. Although teachers' salaries have been falling, as a rule, during the last five years in most of the provinces, under our present arrangements they have for the same period been steadily increasing. Notwithstanding the gradual lowering of the provincial grant to each, salaries during the past year actually increased, on the average. The increases were as follow: Class A—male teachers, \$46.94; female teachers, \$29.52. Class B—male teachers, \$7.85; female teachers, 84 cents. Class C—male teachers, \$9.07; female teachers, \$1.04. Class D—male teachers, \$2.26; female teachers, \$1.53. This increase was the spontaneous offering of the people in their desire to hold or obtain teachers with good records. Without increasing remuneration we can not expect the profession to improve much. Our future progress is conditioned by salary and the general cost of living, as well as by the adoption of improved accommodations, apparatus, and methods.

"That this continued improvement is not due

solely to the reduction in the number of licenses issued is suggested by the following figures showing the number of licenses granted each year since 1893: In 1893, 218; in 1894, 250; in 1895, 365; in 1896, 513; in 1897, 571. Four hundred more candidates than went up to the provincial high-school examination in 1896 presented themselves for examination in 1897. But as a small fee was required to be paid by those not taking the examination in regular order, the cost of the examination was less. The great rush of candidates to examination did not mean, it appears, a sudden advance in preparedness so much as it indicated oversanguine expectations. Out of 2,917 only 957 obtained the grades applied for, although 1,415 received certificates of some grade. It must be remembered that the standard after 1893 was being gradually raised until 1897, when the accommodation expedients authorized during the transition from the old to the new course could be completely dropped.

"Lastly, both the provincial Normal School and the provincial School of Agriculture affiliated to it, have continued to improve in the preparation of teachers suited to the needs of the province. They help to make clear that the form of education in the common schools best fitted to lay the foundation of a patriotic interest in the soil, industries, and life of the province is also the best for the foundation of the education of the future professional classes; and that the elementary stages of public-school work might therefore be safely directed without exception toward the stimulation of an industrial bias, instead of solely directing the pupils toward that academic instruction more particularly leading to the learned professions so called."

The following are the school statistics for the year 1897: School sections in the province, 1,896; sections without school, 153; schools in operation, 2,346; number of teachers, 2,485; teachers trained in Normal School, 752; pupils on the register in the last quarter of 1897, 100,356; high-school students, 4,807; property in sections, \$80,738,448. The expenditure in 1897 from provincial grants was \$242,811; from county funds, \$119,652; from section assessments, \$448,263.

Agriculture.—The number of agricultural societies in 1897 was 89, the members numbered 5,238, the total sum subscribed was \$5,998, and the Government grant was \$8,000. Efforts were made to improve the live stock, and much greater interest was shown in fruit culture. Efforts were made by the Department of Agriculture to promote the

breeding of hogs, and in this respect a satisfactory showing was given at the annual Halifax exhibition.

The creameries and cheese factories numbered 20, with 1,191 patrons and a production of 365,670 pounds of cheese and 192,887 pounds of butter. The total value was \$73,118.

Mining.—The receipts of the department during the year ending Sept. 30, 1897—mainly from the coal royalty—were \$270,387. The gold produced was 26,580 ounces, valued at \$505,020. This production is steady, the total value for thirty-five years having been \$12,434,474. The other items of mineral production were as follow:

PRODUCTS.	Year ending Sept. 30, 1896.	Year ending Sept. 30, 1897.
Iron ore (tons).....	56,334	44,146
Manganese ore (tons).....	129	100
Coal raised (tons).....	2,235,472	2,230,916
Coke made (tons).....	58,741	45,000
Gypsum (tons).....	120,489	125,000
Grindstones, etc.....	20,317	22,400
Limestone (tons).....	31,171	25,000

The sales of coal were \$641,308, and the export to the United States was 106,279 tons, against 174,919 tons in 1896.

Railways.—The report of the provincial Government Engineer, dated Jan. 20, 1898, says that "our operations during the year consisted chiefly of preliminary railway surveys, supervision of railway construction, and the erection of highway bridges, built under the authority of the bridge act of 1883 and its amendments. The year 1897 will be memorable for the opening for traffic of the first three sections of the Coast Railway, 31 miles, Yarmouth to East Pubnico. With the further stretch of 20 miles under construction, to Barrington, nearly one fourth of the whole length from Yarmouth to Halifax will be completed. Under the provisions of chapter liii, Revised Statutes, and in consideration of a subsidy to be paid in the manner provided, an agreement has been entered into between the Government of Nova Scotia and the Midland Railway Company, Limited, for a railway from a point on the Intercolonial Railway, or the Dominion Atlantic Railway, within the town of Windsor, in the county of Hants, to a point on the Intercolonial Railway within the town of Truro, in the county of Colchester."

The outlay on bridge repairs during 1896-'97 was \$12,986, making a total of \$145,976 in five years.

O

OBITUARIES, AMERICAN. Acton, Thomas Coxon, financier, born in New York city, Feb. 23, 1823; died in Saybrook, Conn., May 1, 1898. He acquired a limited education, and was admitted to the bar, but never practiced. In 1850 he was appointed assistant deputy county clerk, and after three years' service there he entered the office of the surrogate. Gov. Morgan, in 1860, appointed him a police commissioner of the old metropolitan district, an office he held under the old and new organizations for nine years, during seven of which he was president of the board. His most distinguished service was during the draft riots in 1863, when for a week, in consequence of the wounding of Superintendent Kennedy, he personally commanded the entire police force of the city. During this period he was also a member of the Board of Health and the Board of Excise, both of which he aided in organizing. The paid fire department, too,

was created largely through his efforts. From 1870 till 1883 he was superintendent of the United States Assay Office in New York city, and in the next four years he was assistant treasurer of the United States. In 1887 he organized and became president of the Bank of New Amsterdam, with which he was officially connected till 1898. Mr. Acton was an organizer of the Societies for the Prevention of Cruelty to Animals and to Children.

Allen, Joseph Henry, theologian, born in Northboro, Mass., Aug. 21, 1820; died in Cambridge, Mass., March 20, 1898. He was graduated at Harvard in 1840, and at its divinity school in 1843, and held pastorates in Roxbury and Northboro, Mass., Washington, D. C., Bangor, Me., Ann Arbor, Mich., San Diego, Cal., and Ithaca, N. Y., till 1878. For twelve years he was editor in chief of the "Christian Examiner." From 1878 till 1882 he was lecturer on ecclesiastical history at Harvard, and in

1887 he became editor of the "Unitarian Review." He received the degree of D. D. from Harvard in 1891. Dr. Allen was a prolific writer on religious and philosophical subjects, and published "Ten Discourses on Orthodoxy" (Boston, 1849); "Hebrew Men and Times" (1861); "Fragments of Christian History" (1880); "Christian History in its Three Great Periods" (3 vols., 1880-'82); "Our Liberal Movement in Theology" (1882; with "Sequel," 1897); "Positive Religion" (1892); "Unitarianism since the Reformation" (1894); and translations of Renan's "Anti-Christ," "People of Israel," and "Origins of Christianity."

Ammen, Daniel, naval officer, born in Brown County, Ohio, May 15, 1820; died in Washington, D. C., July 11, 1898. He was appointed a midshipman in the navy, July 7, 1836; was promoted passed midshipman, July 1, 1842; master, May 10, 1849; lieutenant, Nov. 4 following; commander, July 16, 1862; captain, July 25, 1866; commodore, April 1, 1872; and rear admiral, Dec. 11, 1877; and was retired June 4, 1878. He was on sea duty twenty-one years and two months, and on shore or other duty seventeen years and three months. He made his first cruise with the Wilkes exploring expedition in 1837-'38; was on duty in the West Indies and the Mediterranean and off the coast of Labrador till 1841, and passed the examination at the Naval School in 1842. From that time till the outbreak of the civil war he served in the coast survey, the scientific expedition to Paraguay, and the commission to select a naval station in the Bay of San Francisco, and also at the Naval Observatory. At the opening of the civil war he was executive officer on the "Roanoke," of the North Atlantic blockading squadron. He commanded the "Seneca," of the South Atlantic squadron, at the battle of Port Royal, Nov. 7, 1861, and on the following day raised the flag over Fort Beauregard and delivered the works to the army. In the attack on Port Royal Ferry, on Jan. 1 following, he commanded the forces entering by way of Whale Branch. Subsequently he was engaged in the operations against Fernandina through St. Andrew's Sound and in the St. John river. In 1863 he commanded the monitor "Patapsco" in the attacks on Fort McAllister, in March, and Fort Sumter, in April, and in 1864-'65 the steam sloop "Mohican" in the bombardment of Fort Fisher, in December, and in the naval support of the army in the assault there in the following month. After his retirement he served on the board for the location of the new Naval Observatory and as a representative of the United States at the Inter-oceanic Ship Canal Congress in Paris. Rear-Admiral Ammen invented the cask balsa, or lifeboat, now used on our war vessels, and the twin-screw steel-ram "Katahdin" of the navy. He published "The Atlantic Coast" ("The Navy in the Civil War Series," 1883); "Recollections of Grant" (1885); and "The Old Navy and the New."

Atwood, Melville, geologist, born in Prescott Hall, Worcestershire, England, July 31, 1812; died in Berkeley, Cal., April 25, 1898. In early life he engaged in gold and diamond mining in Brazil, and made a special study of microscopy, geology, and lithology. Through his studies he made, in 1843, a discovery that greatly increased the commercial value of zinc ore. In 1852 he came to the United States and invented the blanket system of amalgamation. The richness of the first Comstock lode was made known to the world by his assay of mineral specimens from that district.

Augur, Christopher Colon, military officer, born in New York, July 10, 1821; died in Washington, D. C., Jan. 16, 1898. He was graduated at the United States Military Academy, and commissioned a brevet

2d lieutenant in the 2d Infantry in 1843; was promoted 2d lieutenant in the 4th Infantry, Sept. 12, 1845; 1st lieutenant, Feb. 16, 1847; captain, Aug. 1, 1852; major in the 13th Infantry, May 14, 1861; lieutenant colonel of the 12th Infantry, July 1, 1863; colonel, March 15, 1866; and brigadier general, March 4, 1869; and was retired July 10, 1885. In the volunteer service he was commissioned a brigadier general, Nov. 12, 1861; promoted major general, Aug. 9, 1862; and mustered out Sept. 1, 1866. He was brevetted colonel in the regular army, Aug. 9, 1862, for services at Cedar Mountain, Va., and brigadier general and major general, both March 13, 1865, for services at Port Hudson, La., and in the field during the war. Gen. Augur was one of the few officers who received



commissions during the war for specific distinguished services, having won the volunteer rank of major general by his conduct at the battle of Cedar Mountain. His earliest service was as aid to Gen. Hopping, and after that officer's death to Gen. Cushing, in the Mexican War. After that war he served on the northern frontier and on the Pacific coast, and distinguished himself in operations against hostile Indians in Oregon. When the civil war broke out he was commandant of cadets at the Military Academy, but was soon in the field with a volunteer commission. His greatest achievement was as commander of a division under Gen. Banks in the battle of Cedar Mountain, where he was severely wounded. Subsequently he served in the Louisiana campaign, and at the siege of Port Hudson he commanded the left wing of the army. In 1864-'65 he commanded the Department of Washington; in 1866-'69, that of the Platte; in 1869-'82, that of the South; and in 1882-'85, that of the Missouri.

Ayer, Josephine Mellin Southwick, philanthropist, born in Medway, Mass., Dec. 15, 1825; died in Paris, France, Jan. 3, 1898. She was of Quaker descent, and was the daughter of a prosperous manufacturer of Lowell, Mass. In 1859 she married Dr. John C. Ayer, a well-known chemist and manufacturer of patent medicines, at whose death she came into possession of great wealth. Since 1889 she had resided in Paris, France, where she entertained sumptuously, promoted music and the fine arts, and took special pleasure in aiding struggling American artists and singers. Her private and public charities at home and abroad were exceedingly liberal. The most cherished object of her benefactions was the Ayer Home for Young Women and Children, which she founded and maintained in Lowell. (See GIFTS AND BEQUESTS.)

Bagley, Worth, naval officer, born in Raleigh, N. C., April 6, 1874; killed at Cardenas, Cuba, May 11, 1898. His father was William H. Bagley, a major in the Confederate army, and for nearly twenty years clerk of the Supreme Court of North Carolina, and his mother the youngest daughter of the late Gov. Jonathan Worth. He was graduated at the United States Naval Academy in 1895, and after two years' service afloat on the "Montgomery," the "Texas," and the "Maine," was promoted to ensign July 1, 1897. After a short service on

the "Indiana," he became executive clerk to Capt. Charles D. Sigsbee of the "Maine," and in November was detailed to the new torpedo boat "Winslow" as inspector. The "Winslow" went into commission on Dec. 28 following, and Ensign Bagley became her executive officer on the strong solicitation of her commander, Lieut. J. B. Bernadon. In April,



1898, the "Winslow" was assigned to the fleet mobilized for operations in the waters of Cuba. On May 9 she precipitated the first naval engagement in the war with Spain during a reconnoissance in the harbor of Cardenas, when she drew the fire of three Spanish coast-guard vessels, but escaped without a scratch. The reconnoissance developed valuable information concerning the defenses of the harbor, where it was then expected United States troops would be first landed. On the morning of May 11 the "Winslow," "Hudson," and "Wilmington" were prepared to force an entrance into the harbor of Cardenas. The vessels started shortly after noon and were fired on by one of the Spanish gunboats. Immediately the action became general. Within a few minutes the "Winslow" was disabled, and her larger consorts had great difficulty in hauling her out of range of the Spanish guns. The "Wilmington" silenced the enemy's fire, and just as the action closed Ensign Bagley and four sailors were instantly killed by a shell. See "The First Fallen Hero" (Norfolk, Va., 1898).

Baker, Charles Richard, an Episcopal clergyman, born in Medford, Mass., April 15, 1842; died at Gratz, Austria, Aug. 8, 1898. He entered the priesthood in 1873, and was rector of the Church of the Messiah, Brooklyn, N. Y., from 1873 until his death. He was the author of "The Apostles' Creed tested by Experience" (New York, 1884) and "Prayers for the Christian Year."

Banigan, Joseph, manufacturer, born in County Monaghan, Ireland, June 7, 1839; died in Providence, R. I., July 28, 1898. He removed to Providence when eight years old, attended school for about a year, served an apprenticeship in the jewelry trade, and when twenty-one years old entered a manufactory of rubber goods. He remained in the last line of business throughout his life, becoming known as the "American Rubber King" and acquiring a fortune of many millions. Mr. Banigan was one of the largest contributors to the building fund of the new cathedral in Providence; established a Home for the Aged Poor in 1884 at a cost of \$50,000; and was the principal benefactor and the means of establishing St. Joseph's Hospital, St. Joseph's Orphan Asylum, Home for Working Girls, and St. Xavier's Convent, all Roman Catholic institutions, but open to Protestants on equal terms. For many years he deposited a handsome sum each month to the credit of his private secretary for distribution on non-sectarian lines. (See GIFTS AND BEQUESTS.)

Barry, William, comedian, born in Ireland about 1850; died in the borough of Brooklyn, N. Y., April 15, 1898. He accompanied his parents to New York in early childhood, and for several years followed the life of a newsboy. When the civil war broke out he ran away from home with a volunteer

regiment, but on reaching Baltimore he found that he could not be mustered into the service because of his youth. In seeking employment he met the manager of a vaudeville theater, who was so impressed by his fine voice and excellent dancing that he put him on the stage. Subsequently he acted with Col. Sinn's company for several years. In 1868 he played in Detroit; in 1869-'72 in Baltimore and Philadelphia; and in 1872-'78 made several tours with Tony Pastor's company. From the last year till his death he played principally in Brooklyn, intermitting with several tours. He was a popular favorite, and was highly successful as a comedian.

Bartlett, Samuel Colcord, clergyman and college president, born in Salisbury, N. H., Nov. 25, 1817; died in Hanover, N. H., Nov. 16, 1898. He was graduated at Dartmouth in 1836, and at Andover Theological Seminary in 1842. From 1843 to 1845 he was pastor of the Congregational church at Monson, Mass., and for the six years succeeding was Professor of Intellectual Philosophy at Western Reserve College, Hudson, Ohio. Thence he went to Manchester, N. H., where he remained four or five years as pastor of the Franklin Street Church, leaving there in March, 1857, to accept a call to the New England Church, in Chicago. In the autumn of the same year he became Professor of Biblical Literature in Chicago Theological Seminary, which chair he held for nineteen years, and resigned at length to accept the presidency of Dartmouth College in 1877. He resigned this latter office in 1893 and occupied the remainder of his life with literary work. He was a biblical scholar of eminence, and besides contributions to "The Forum," "Princeton Review," and "Bibliotheca Sacra," was the author of "Lectures on Modern Universalism" (Manchester, 1856); "Life and Death Eternal" (Boston, 1866); "From Egypt to Palestine" (New York, 1879); "Sources of History in the Pentateuch" (New York, 1883); and "The Veracity of the Hexateuch" (New York, 1897).

Bates, Erastus Newton, military officer, born in Plainfield, Mass., in 1828; died in Minneapolis, Minn., May 29, 1898. He removed to Ohio in his early youth, and settled in Minneapolis in 1855. In that city he erected one of the first sawmills and identified himself with every enterprise tending to benefit the young city. He was one of the framers of the State Constitution, and one of the first State Senators, and one of the founders of Plymouth Church. Shortly before the civil war he removed to Springfield, Ill., where he enlisted in the 80th Illinois Volunteers. He won promotion rapidly by meritorious conduct, and reached the rank of brigadier general. In one of the fiercest battles his entire command, excepting a large percentage killed, was captured and removed to Andersonville Prison. Later he was taken to Libby Prison, in Richmond, where he was one of the leading organizers of the prison societies. He assisted in planning the famous tunnel escape, but when the hour of flight arrived he was too ill to join his companions therein. At the close of the war he was exchanged, and returned to Springfield. He served two terms as State Treasurer. His last years were spent in Minneapolis.

Bayard, Thomas Francis, statesman, born in Wilmington, Del., Oct. 29, 1828; died in Dedham, Mass., Sept. 28, 1898. He came of a family who traced their line back to the illustrious Chevalier Bayard. The widow of his direct ancestor, Balthazar Bayard, came to America in 1647, on the same ship with Peter Stuyvesant; and his great-grandfather, Gov. Bassett, his grandfather, James Asheton Bayard, his uncle, Richard H. Bayard, and his father, James A. Bayard, all represented

Delaware in the United States Senate. He was educated mainly at Dr. Hawk's school, Flushing, N. Y., and, after studying there two years, began a business training in New York city and Philadelphia. In 1848 he began to study law with his father in Wilmington. He was admitted to the bar in 1851, and immediately began practice. He was appointed United States district attorney for Delaware in 1853, but resigned the next year. In 1855 he went to Philadelphia, where he formed a legal partnership with William Shippen, which continued till the latter's death, two years later. He then returned to Wilmington. In January, 1864, the elder Bayard, after taking the oath of allegiance, resigned his seat in the Senate. His successor died March 29, 1867, and he was prevailed upon to serve out the unexpired term of two years. At the session of the Legislature which elected the father to the unexpired term the son was chosen as his successor. Mr. Bayard, the younger, was twice re-elected, serving continuously till March 4, 1885. He took his seat March 4,

1869, and almost immediately became the leader of the Democratic minority. He served on the Committees on Finance, Judiciary, Private Land Claims, Library, and Revision of Laws. He was a member of the Electoral Commission of 1876. In 1872 and 1876 he received some votes for the Democratic nomination for President, and in 1880 and 1884 was the most

formidable rival of the successful candidates. In October, 1881, he was elected president *pro tempore* of the Senate. His senatorial career ended in 1885, when he was appointed Secretary of State by President Cleveland. During his administration of this office he was called upon to deal with some difficult problems, including the Bering Sea controversy, the British and Russian treaties, and the Sackville-West trouble. In 1889 he returned to his legal practice in Wilmington, remaining in private life four years. On March 30, 1893, he was appointed ambassador to Great Britain. He addressed many audiences in Great Britain, and his open manner of expressing pro-English sentiments at the Boston, Lincolnshire, Grammar School, Aug. 2, 1895, and at a meeting of the Edinburgh Philosophical Society, Nov. 7 following, caused a vote of censure to be passed on him in the House of Representatives. His term of office expired March 4, 1897. He returned to the United States in May following, bringing with him the "log of the Mayflower," intrusted to him for presentation to the State of Massachusetts. He received the degree of LL. D. from Harvard in 1877, and from the University of Michigan in 1891; and both Oxford and Cambridge gave him the degree of D. C. L. in 1896.

Beidler, Jacob, merchant, born in Bedminster, Pa., Dec. 20, 1815; died in Chicago, Ill., March 15, 1898. He acquired a district-school education, learned the carpentry and cabinetmaking trades, and removed to Springfield, Ill., in 1842. After working at the bench and engaging in the grocery business for two years, he went to Chicago, where he followed his trade for three years and then established a lumber yard. In the parent business and the various branch interests he started or be-

came connected with he attained large financial success. His benefactions were large and frequent, but so quietly bestowed that none beyond his own family knew their extent. Among the most important of his public charities were the gift of one third of the cost of the West Side Young Men's Christian Association building, and large endowments to Lake Forest University, the Presbyterian Hospital, and other Presbyterian and local benevolent institutions.

Bell, Peter Hansbrough, jurist, born in Virginia about 1820; died in Littleton, N. C., March 11, 1898. In 1836 he went to Texas, arriving there just in time to join Sam Houston's army and fight against Santa Anna in the battle of San Jacinto as a volunteer private. Three years afterward he was appointed inspector general of Texas, and subsequently as captain of a company of rangers he distinguished himself by his reckless and successful fights with Indians. After the annexation of Texas to the United States he was appointed a colonel of volunteers. In 1848 he was elected Governor of the State, and he served till 1853. In this office he opposed the attempts of the Federal Government to curtail the territory claimed by Texas, even to the extent of threatening armed resistance, a course enthusiastically supported by his people. Trouble was averted by compromise in 1850. On the expiration of his term as Governor he was elected a Representative in Congress, serving from 1853 till 1857, and after this he further served his State as a judge of its Supreme Court. For many years he resided in North Carolina.

Bellamy, Edward, journalist, novelist, and social philosopher, born in Chicopee Falls, Mass., March 26, 1850; died there, May 22, 1898. He was the third son of the Rev. Rufus K. Bellamy and Maria K. Putnam. His ancestors, who originally came from England, had been New Englanders for two hundred years. One of these ancestors was the celebrated theologian, Joseph Bellamy. Edward Bellamy went to Union College, Schenectady, N. Y., and afterward spent a year or more in study in Germany. Returning to America, he read law and was admitted to the bar. His taste, however, was for literature, and instead of undertaking legal practice he entered journalism. For two years he was associate editor of "The Union," of Springfield, Mass., where his writings were marked by fineness and virility. He then went to New York as an editorial writer on "The Evening Post." Here the purity, the incisiveness, and the concealed irony of his style indicated his literary degree.

After a year he returned to his home near Springfield, and with his brother, Charles J. Bellamy, established the Springfield "Daily News." But he soon retired wholly from journalism to devote himself to the writing of fiction. On May 30, 1881, he married Emma A. Sanderson, of Chicopee Falls. Two children were born of this marriage. Edward Bellamy's short stories soon began to appear in the more important periodicals. These tales showed impressive characteristics; with ingenuity of plot and dis-



tion of style was a certain psychologic quality akin to Hawthorne's, which attracted instant attention; and, though the stories often turned on some seemingly reasonable whimsicality, there was invariably a challenging boldness of idea. His first novel was "Six to One: A Nantucket Idyl" (1878). This was a lightsome summer story, faithful as to local color, and with a marked atmosphere. In 1880 came "Dr. Heidenhoff's Process," and in 1884 "Miss Ludington's Sister: A Romance of Immortality." Both of the last two named were adventurous in their psychological motive; both were avowedly materialistic in the methods applied to conscience in the one case, and to spiritism in the other; yet, by curious legerdemain, both suggested much that was apparently contradicted. Up to this time none of Mr. Bellamy's stories had attained wide popularity, but each had made a distinct impression. The author's high rank as a story writer was conceded by critics, and the eventual trend of his versatility was watched with interest. His short story "Pott's Painless Cure" gave promise of a humorist. Another short story, "An Echo from Antietam," evinced a power of sane melodrama and tender sympathy; while "Dr. Heidenhoff's Process" and "Miss Ludington's Sister," as well as several short stories of analogous interest, showed an artist brooding over the occult. The publication in 1888 of his next and greatest book, "Looking Backward, or 2000-1887," was a surprise to critics, as it revealed still another and a momentous bent of the author's mind. It was perhaps no less a surprise to himself, as it gave a permanent direction to his thoughts and purposes for the rest of his life. This book presented a forecast of a condition of governmental socialism in the year 2000, into which the world was supposed to have passed by economic evolution. It in no sense pretended to present a Utopian state of affairs possible in the present. It specifically described a condition into which the author believed that present economic forces are gradually carrying the world, and which consequently could not be made to exist to-day. The chief present force at work is the centralization of industrial and commercial energy, which, he believed, is destined eventually to lead to all production and distribution being performed by government through an industrial army of all the people of the nation. In that system each would be given his proper work; all work would be noble; there would be enough work for all; and because all worked all could have leisure and liberty. The author's story-telling art, while apparently subsidiary, gave buoyancy to the otherwise heavy problems of the book, and inspired such interest in the new ideas as caused half a million copies to be sold in three years. It was translated into French, German, Russian, Arabic, and other languages, and awakened as much attention in Europe as in America. The vogue of the book brought the tenets of state socialism to the comprehension of every one. The warmth of heart with which the author described the suffering under the present industrial system, and the glowing possibilities of equalized comfort under the future system, appealed to a wide sentiment. As once before, in the case of "Uncle Tom's Cabin," the mind of almost the entire public was interested by a novel which addressed itself to the conscience. But while interest in the book and in the questions it raised was universal, there were varying degrees of opinion. Many persons argued the impracticability and even the undesirability of the system described; others accepted the principle in its entirety; perhaps the great majority were quickened by the sincerity of its spirit and the attractiveness of its idea, but were unconvinced of the feasibility of its scheme. It is as yet too early

to estimate the effects of the book, since it is still extending its circle of readers and is in certain quarters an avowed political impulse. The astonishing career of the book made the author's personality a center of general and decided interest. In response to numerous requests from editors, Mr. Bellamy described how he came to write "Looking Backward," and its effect upon himself as its writing progressed. Though from his youth he had resented the inequality of rich and poor, when he began this book he had no further intention than to write a romance of the future in which, incidentally, human conditions should be greatly improved. But as he went on what at first had seemed incidental appeared to him to be of the foremost importance, and he determined to let the romance wait until he could work out a satisfactory solution of the social problem. Not until he was able, after many months of profound thought, to present to himself what he considered an unimpeachable economic and social scheme did he again take up the thread of the story. Then the story element took almost secondary place as the means of presenting to the world the scientific principles to which his investigations had converted him. Consequently, as he naively said, he was not surprised at the effectiveness of the book, because it had first wrought such an effect upon himself. In 1891 Mr. Bellamy became editor in Boston of "The New Nation," a weekly periodical which he established as the organ of the new nationalism. The brilliant editing of this paper did not insure its life, and after about a year he retired again to his home and resumed authorship. No other book, however, came from him until 1897, when he published "Equality." This was conceived as a sequel to "Looking Backward." In it the same characters of the twenty-first century appeared again, and he made it the means of developing in further detail the application of governmental socialism to the happiness and liberty of both men and women. In the previous book he had unfolded the more obvious advantages of a system of national production and distribution. In the latter book, after ten years of deeper study, he presented the principle of equality in economic life as the only basis for either liberty or brotherhood. More thoughtful than popular, this book was designed to establish fully before the thinking classes what he held to be the rational foundation of the principles of nationalism. Gradually failing health led him to seek the benefit of the Colorado climate in 1897, but with no lasting result. Edward Bellamy is best known as a social reformer. Modest to the point of shyness, and of extreme fineness of sensibility, he was neither in mind nor in temperament the active philanthropist. With him human sympathy led to a creative speculation which aimed at entire social reconstruction. Yet he was more than theorist, for he was urgent of practical methods for accelerating the economic evolution.

Bennett, Edmund Hatch, jurist, born in Manchester, Vt., April 6, 1824; died in Boston, Mass., Jan. 2, 1898. He was graduated at the University of Vermont in 1843, and in 1847 was admitted to the bar. He practiced his profession for many years in Taunton, Mass., being mayor of that city from 1865 to 1867 and judge of probate and insolvency of Bristol County from 1858 to 1883. From 1865 to 1871 he was a lecturer at the Harvard law school, and for the rest of his career was professor and dean of the law school of Boston University. He edited many important legal works, including 30 volumes of "English Law and Equity Reports," all the writings of Judge Story, "Cushing's Massachusetts Reports," Vols. IX, X, XI, and XII, "Massachusetts Digest," "Brigham on Infancy," "Blackwell on Tax Titles," two volumes of "Leading Criminal

Cases," eight volumes of "Greenleaf's Reports," "Goddard on Easements," "Benjamin on Sales," "Pomeroy's Constitutional Law," "Indermaur's Principles of Common Law," and five volumes of "Fire Insurance Cases." He contributed frequently to professional journals and was coeditor of the "American Law Register."

Bennett, Joseph M., philanthropist, born in Juliustown, N. J., Aug. 16, 1816; died in Philadelphia, Pa., Sept. 29, 1898. He went to Philadelphia when sixteen years of age, engaged in the clothing business, and was the originator of a unique building known as Tower Hall, where his poems, appended to clothing advertisements, were well known. He began his work of philanthropy in 1880, when he gave 40 acres in what is now Fairmount Park, valued at \$400,000, for the erection of a Methodist orphanage, afterward contributing largely to its support. He also founded the Hays Home, and gave valuable properties to the University of Pennsylvania, the Deaf and Dumb Institute, and the Methodist deaconesses. His property, which included the Chestnut Street Opera House, was said to be worth \$3,000,000, and it is estimated that his gifts to charity amounted to \$1,000,000. (See GIFTS AND BEQUESTS.)

Bennett, Sanford Fillmore, hymnologist, born in Eden, N. Y., in 1836; died in Richmond, Ill., June 12, 1898. In 1860 he went to Elkhorn, Wis., and became editor of the "Independent," subsequently resigning the place to enter the 40th Wisconsin Volunteers, with which he served till the close of the war. On his return he studied medicine and engaged in the drug business. In 1867 he became associated with J. P. Webster, the composer, in preparing a Sunday-school hymn book, "The Signet Ring," to which he contributed nearly 100 hymns. One of the first of these was "The Sweet Bye and Bye," which was inspired by a doleful chance remark of Mr. Webster's. Mr. Bennett wrote the words at once. Mr. Webster took a violin and soon produced the melody. Within two hours both men were singing the hymn that has become famous. Mr. Bennett composed numerous hymns and songs that were published in sheets.

Benteen, Frederick William, military officer, born in Petersburg, Va., Aug. 24, 1834; died in Atlanta, Ga., June 22, 1898. He was educated in his native State, and lived there till the beginning of the civil war, when, strongly opposed to secession, he went to Missouri and organized a company of Union volunteers. He was commissioned 1st lieutenant, 10th Missouri Cavalry, Sept. 1, 1861; was promoted captain, Oct. 1 following; major, Dec. 18, 1862; lieutenant colonel, Feb. 27, 1864; colonel 138th United States Colored Infantry, July 15, 1865; and was mustered out of the volunteer service Jan. 6, 1866. On July 28 following he was commissioned a captain in the famous 7th Cavalry; on Dec. 17, 1862, he was promoted major of the 9th Cavalry; and on July 7, 1868, he was retired. His most distinguished service was after the war, in campaigns against the Indians. He was brevetted major and lieutenant colonel, March 2, 1867, for gallantry in the battle of the Osage and in the charge on Columbus, Ga., respectively; colonel, Aug. 13, 1868, for the engagement with Indians on Saline river, Kan.; and brigadier general, Feb. 27, 1890, for the action against Indians on the Little Big Horn, Mont., known as the Custer massacre, in 1876, and for similar action at Cañon creek, Mont., in 1877.

Bogan, Frederick B., military officer, born in Boston, Mass., Feb. 10, 1851; died there, Aug. 9, 1898. He was educated in the public schools, entered the office of the city architect in 1878, was transferred to the Public Buildings Department in

1885, and at the declaration of war against Spain was superintendent of the department. His military career opened in 1866, when he enlisted as a private in the 5th Massachusetts Militia. In 1882 he was commissioned major of the 9th Infantry; in 1892 was appointed inspector general of the State militia; and in 1893 was elected colonel of the 9th Infantry. This regiment was one of the first to enter the United States volunteer army under the President's call after war with Spain was declared, and also one of the first detailed for the campaign in Cuba. Col. Bogan was prostrated by the hardships of the service before and after the surrender of Santiago, and was taken home for treatment, but died a few days after his arrival.

Booth, Henry, jurist, born in Roxbury, Conn., Aug. 19, 1818; died in Minden, Neb., April 29, 1898. He was graduated at Yale in 1840; spent a year in teaching in Wellsboro, Pa., was graduated at the Yale law school in 1844, and settled in Towanda, Pa., to practice. In 1856 he removed to Poughkeepsie, N. Y., and for two years had charge of the law department of the State and National Law School. Thence he was called to assist in organizing a law department in the University of Chicago, of which he had the principal charge till 1870, when he was elected one of the judges of the circuit court of Cook County. He served on the bench till 1879, and in the meantime continued to be connected with the law school as its dean. After his retirement he resided in Pasadena, Cal.

Bowker, Sarah Lamson, benefactor, died in Newton, Mass., July 27, 1898. She was the founder and for twenty-two years president of the Woman's Board of Missions, the first denominational organization specially formed for women's foreign missionary work. Two large buildings in foreign lands bear her name—Bowker Hall, in Bombay, India, the American Mission School, and Bowker Hall in Constantinople, one of the two large buildings of the American College for Girls, which has done much to educate and elevate women in Turkey. In 1890, through ill health and increasing infirmities, Mrs. Bowker was obliged to retire from the presidency of the mission board. Besides this work she was active during the civil war in various soldiers' relief organizations, was president of the Union Maternal Association, and was connected with societies for aiding women. She had passed the greater part of her life in Boston, where she and her husband, Albert Bowker, who survived her but a day, spent considerable money in charity. (See also GIFTS AND BEQUESTS.)

Boynton, Albert, journalist, born in Bangor, Me., March 31, 1837; died in Alma, Mich., Jan. 9, 1898. He took a partial course at Bowdoin College, leaving on account of failing health and going to Montreal, where he practiced law and entered journalism. In 1857 he removed to Detroit, Mich., engaged in practice, and served as city attorney and police judge. In 1872 he acquired an interest in the "Detroit Free Press," and from that time till his death was its principal editorial and political writer.

Braine, Daniel Lawrence, naval officer, born in New York city, May 18, 1829; d. in Brooklyn, N. Y., Jan. 30, 1898. He was appointed a midshipman in the navy, May 30, 1846; was promoted passed midshipman, June 8, 1852; master, Sept. 15, 1855; lieutenant, the day following; lieutenant commander, July 16, 1862; commander, July 25, 1866; captain, Dec. 11, 1874; commodore, March 2, 1885; and rear admiral, Sept. 4, 1887; and was retired May 18, 1891. He was on sea duty twenty-one years and one month, and on shore or other duty sixteen years and five months. His first service was on the sloop "Austin," of the Texas repub-

lic, after her delivery to the United States navy. He was then detailed to the steamer "General Taylor," engaged in carrying recruits from New Orleans to Pensacola, Fla. During the Mexican War he took part in the actions at Alvarado, Tobasco, Tuspan, Saguna, Tampico, and Vera Cruz, and subsequently saw service with the home, East Indian, and Mediterranean squadrons and in the coast survey. In April, 1861, he was placed in command of the steamer "Monticello," which was hastily fitted out to provision Fort Monroe, and after discharging this duty his vessel was assigned to the North Atlantic blockading squadron. With her he took part in the first naval engagement of the civil war—an action with a Confederate battery at Sewall's Point, Va., May 19. In October following he was present at the attack and capture of Forts Hatteras and Clarke, and engaged the Confederate gunboats at Kimmekerk Woods, above Cape Hatteras, sank two barges, dispersed two regiments, and rescued the 20th Indiana Regiment, which was surrounded by the enemy. In command of the "Pequot," he participated in the attacks on Forts Fisher and Anderson, and in three on Cape Fear river during the naval advance on Wilmington. He commanded the "Junata," of the "Polaris" search expedition, in 1873, and in the latter part of that year obtained the surrender by Spain of 102 survivors of the "Virginus" prisoners at Santiago de Cuba. In 1886-'88 he commanded the South Atlantic station, and in 1889-'90 the navy yard at Brooklyn.

Brice, Calvin Stewart, lawyer, born in Denmark, Ohio, Sept. 17, 1845; died in New York city, Dec. 15, 1898. He entered Miami University at the age of thirteen, and in April, 1861, enlisted in a university company which was stationed at Columbus, Ohio. In the autumn of the year he resumed study, and in April, 1862, again enlisted in a university company, which was merged in the 86th Ohio Infantry. He served in West Virginia during the summer campaign; then returned to the college and was graduated in June, 1863. After his graduation he taught school, served as auditor of Allen County, recruited a company and went to the war again as its captain in the 180th Ohio Volunteers, and served till the close of the war in Tennessee, Georgia, and the Carolinas. Mr. Brice took the law-school lectures of Michigan University in 1865, was admitted to the bar in 1866, and practiced law ten or twelve years at Lima, Ohio. He began his financial career in 1870, becoming a stockholder in the National Bank of Lima, and during the panic of 1873 his advice saved the bank from collapse. Shortly afterward he became interested in railroad affairs, and was identified with the East Tennessee, the Richmond Terminal system, the Duluth, South Shore and Atlantic, the Knoxville and Ohio, and several other railroads. At the time of his death he was interested in an enterprise known as the American China Development Company, its principal purpose being to build a railroad from Hankow to Canton, and thence to the seaboard near Hong-Kong. Mr. Brice was a Democrat in politics, and was an elector on the Tilden ticket in 1876 and on the Cleveland ticket in 1884. As chairman of the campaign committee he conducted the national campaign in 1888. He was elected United States Senator from Ohio in 1890, and served on the Appropriations, Pensions, Pacific Railroad, and Public Buildings and Grounds Committees.

Briggs, Frank A., governor, born in Hennepin County, Minn., Sept. 15, 1858; died in Bismarck, N. D., Aug. 9, 1893. He received a public-school education, learned the printer's trade, and became editor of the "Howard Lake Advocate." In 1881 he removed to North Dakota, and for a time was employed as a bookkeeper. Subsequently he

was postmaster at Mandan and for eight years treasurer of Morton County. In 1894 he was elected State Auditor of North Dakota, and in 1896 Governor.

Bristow, George F., music teacher, born in 1824, died in New York city, Dec. 13, 1898. He taught music in the public schools of New York city from 1850 till his death; was the author of several symphonies; and in 1854 composed the opera "Rip Van Winkle," which was produced in Niblo's Garden. He was a member of the Philharmonic Society, the Manuscript Club, and of other musical organizations.

Broadhead, James Overton, lawyer, born in Charlottesville, Va., May 29, 1819; died in St. Louis, Mo., Aug. 7, 1898. He was educated at a private classical school and at the University of Virginia; removed to St. Charles, Mo., in 1837; and, after studying law with Edward Bates, was admitted to the bar in 1842. In 1845 he was a member of the State Constitutional Convention, in 1847 was elected to the lower house of the Legislature, and in 1850-'54 was a member of the State Senate. He removed to St. Louis in 1859. At that time he was a Whig in politics. When the civil war broke out he was influential in the Union cause, and was a member of the committee formed in 1861 to perfect the military organization of St. Louis and Missouri. Subsequently he was appointed provost marshal general of the department that included Missouri, Arkansas, Kansas, and Indian Territory. After the war he joined the Democratic party, and in its national convention of 1876 he received many votes for the presidential nomination. He was elected to Congress in 1882, and was appointed United States minister to Switzerland in 1893. His public service also included a special mission to France in connection with the American claims for spoliation.

Bromley, Isaac Hill, journalist, born in Norwich, Conn., March 6, 1833; died there, Aug. 11, 1898. He took a partial course at Yale College, was admitted to the bar in 1854, and, after serving as clerk of each house of the State Legislature, established the "Norwich Morning Bulletin" in 1858. In 1862 he served as a captain in the 18th Connecticut Volunteers, and for two years afterward as a provost marshal. From 1868, when he gave up his connection with the "Bulletin," till 1873 he was editor and part proprietor of the "Hartford Evening Post." Leaving that newspaper because of political differences with his associates, he held a brief editorial place on the New York "Sun," and in 1873-'83 was a member of the regular editorial staff of the New York "Tribune." His editorial work was then interrupted for a year, during which he served as a Government director of the Union Pacific Railway. During the presidential campaign of 1884 he had editorial charge of the "Rochester Post-Express." After the election he was appointed assistant to President Charles F. Adams, of the Union Pacific Railway, with whom he remained till 1891, when he resumed his editorial connection with the "Tribune," and continued it till shortly before his death.

Brooks, Nathan Covington, educator, born in Cecil County, Md., Aug. 12, 1809; died in Philadelphia, Pa., Oct. 3, 1898. He was educated at West Nottingham Academy, received the degree of master of arts from St. John's College, Annapolis, and was successively principal of the Franklin Academy in Reistertown in 1831, principal of the Brookville Academy in 1834, and editor and publisher of the "American Museum," a monthly magazine which had a distinguished array of contributors. In 1839 he was elected principal of the Baltimore High School, and in 1848 he attempted to organize the

Baltimore Female College, which step marked him as one of the earliest advocates of higher female education. He projected and carried into execution a series of classical books on an improved system. He wrote and published "A Complete History of the Mexican War" (1845).

Brown, William M., artist, born in Troy, N. Y., in 1828; died in Brooklyn, N. Y., Sept. 6, 1898. He was famous as a landscape painter, and was one of the last of the Hudson river school of artists. At the time chromolithography was coming into notice he painted "A Basket of Peaches upset," which was purchased by an art dealer for \$2,000, and was made the subject of a chromo. "Raspberries and Strawberries," "Wild Strawberries," "Apples," and other subjects from his brush were made familiar by chromolithography.

Bruce, Blanche K., register of the United States Treasury, born a slave in Prince Edward County, Va., March 1, 1841; died in Washington, D. C., March 17, 1898. He was brought up as the companion of his master's son, and personally knew nothing of the hardships of slavery. Shortly before the civil war he removed to Mississippi with the family to which he belonged. His master died about the time the war broke out, the young master joined the Confederate army, and the slave made his way to Hannibal, Mo. There he organized the first school in the country exclusively for negroes, and taught till he had acquired a little money, when he entered Oberlin College. Lack of means prevented him from completing the course, and he supported himself as best he could till the war closed. He then went to Mississippi, where he became a planter and entered actively into the reconstruction movement. He was sergeant-at-arms of the first Mississippi Senate that sat after the war, and between 1871 and 1875 he held the offices of assessor, collector, sheriff, and superintendent of education for his county, and commissioner for the 2d Levee District of Mississippi. On Feb. 3, 1875, he was elected United States Senator as a Republican. When he appeared for formal induction into the office he held back till all the other Senators-elect had been presented by their escorts, and then walked alone toward the president's desk. Suddenly Roscoe Conkling passed from his seat to the aisle, offered his arm to the negro, and said: "Excuse me, Mr. Bruce, my name is Conkling. I had not until this moment noticed that you were unattended. Allow me the pleasure of presenting you." On the expiration of his term, in 1881, he was appointed register of the United States Treasury, and on Dec. 2, 1897, he was reappointed by President McKinley. After the death of Frederick Douglass he was considered the foremost man of his race in the country.

Brunot, Felix R., philanthropist, born in Newport, Ky., Feb. 7, 1820; died in Allegheny, Pa., May 9, 1898. He was graduated at Jefferson College, Cannonsburg, Pa., and became a civil engineer. In 1842 he engaged in milling at Camden and Rock Island, Ill., till 1847, when he became interested in the manufacture of steel at Pittsburg. At the beginning of the civil war he declined a commission in the army, and gave much of his time and money to relieving sick and wounded soldiers. After the battle of Shiloh he fitted out two vessels with medicines and supplies, and ran down to Pittsburg Landing, where he personally cared for the suffering, afterward taking the convalescents back to Pittsburg. In June, 1862, he took charge of twenty-five surgeons and medical cadets engaged by the Pittsburg Relief Commission, and went to Savage Station and Gaines's Mills. He remained in this vicinity after Gen. McClellan changed his base of operations, and although he pledged himself to care for the Union and Confederate wounded alike, he

was arrested and taken to Libby Prison. After the war he served for several years as president of the Board of Indian Commissioners, under appointment by President Grant. Nearly every Protestant and secular charitable institution in the city and neighborhood of Pittsburg received aid from him. (See GIFTS AND BEQUESTS.)

Buell, Don Carlos, soldier, born near Lowell, Ohio, March 23, 1818; died near Rockport, Ky., Nov. 19, 1898. He was graduated at the United States Military Academy in 1841, and assigned to the 3d Infantry. He became 1st lieutenant, June 18, 1846; was brevetted captain at Monterey, and major at Contreras and Churubusco, where he was severely wounded. He was assistant in the adjutant general's office at Washington in 1848-'49, and commanded in various departments of the army till 1861; was promoted lieutenant colonel on the staff May 11, 1861; appointed brigadier general, May 17, 1861. In August he was given command of a division of the Army of the Potomac, and in November following, when the Army of the Cumberland was reorganized as that of the Ohio, he succeeded Gen. William T. Sherman in command. Early in 1862 Gen. Buell began a campaign in Kentucky and Tennessee; occupied Bowling Green, Feb. 14, 1862, Gallatin, Feb. 23, and Nashville, Feb. 25. He became a major general of volunteers, March 21, 1862, and saw hard service at Shiloh, where he arrived April 6, at the close of the first day's action. When Bragg organized his army for the invasion of Kentucky in the summer of 1862 Gen. Buell was sent to oppose him. Bragg's army advanced into Kentucky, captured several of Buell's posts, and compelled the abandonment of Lexington and Frankfort and the removal of the State archives to Louisville. The opposing army passed to the rear of Buell, forcing him to retreat rapidly to Louisville, which city he entered Sept. 24. Six days later orders came from Washington directing him to turn the command over to Gen. Thomas; later on the same day, however, he was restored to his command, and by Oct. 1 he had set out to pursue the enemy. He overtook Bragg at Perryville, and a battle was fought, Oct. 8, with heavy losses on both sides. Next morning Bragg withdrew slowly to Cumberland Gap, and, although Gen. Buell followed, he was blamed for not moving rapidly enough to bring the enemy to action again. He was ordered to transfer his command to Gen. Rosecrans, Oct. 24, and a military commission was appointed to investigate his operations, but their report never has been published. He was mustered out of the volunteer service May 23, 1864, and resigned his commission in the regular army June 1, 1864. He became president of the Green River (Ky.) Iron Works in 1865, and continued as such till 1870, when he engaged in coal mining on Green River. From 1885 till 1890 he served as pension agent at Louisville. In 1894 he engaged in the extraction of gold from the black sand along the seashore of Oregon and Washington.

Bullitt, Joshua Fry, jurist, born in Jefferson County, Ky., Feb. 22, 1822; died near Louisville, Ky.,



Feb. 16, 1898. He was educated at Center College and the University of Virginia; studied law in Louisville; and was admitted to the bar there in 1844. In 1851-'53 he was a member of the Legislature; in 1861 was elected to the bench of the Kentucky Court of Appeals; and in 1864-'65 was Chief Justice of that Court. On July 5, 1863, Judge Bullitt and several other citizens were arrested by the Federal authorities under the belief that they were conspiring to invite the Confederates into the State. In 1871 he was appointed one of the Commissioners to revise the "Code of Practice in Kentucky," and in 1876 one of the editors of the "Civil Code." In private practice he was considered one of the most profound lawyers in the State. One of his best-known cases was based on some mercantile contracts, which he settled after suit had been pending thirty-four years.

Burnham, Benjamin Franklin, lawyer, born in Groton, Vt., Nov. 30, 1830; died in Boston, Mass., May 21, 1898. He was graduated at Wesleyan University in 1852, and was admitted to the bar in Illinois in 1857. When the civil war broke out he was practicing law at Newbury, Vt., and enlisted in the 8th Vermont Volunteers. In 1864 he was detailed as assistant superintendent of education of freedmen in Louisiana, and in 1865 commanded a company of United States colored infantry at Palmetto Ranch. Subsequently he was detailed to the Freedmen's Bureau to establish schools among the negroes, and while engaged in this work at Monroe, La., he was wounded by a mob that opposed such schools. In 1867 he settled in Boston, where for five years he was an associate justice of the South Boston Court. Since 1879 he had applied himself wholly to the preparation of digests and legal works. In addition to his law writings, he was the author of the "Life of Lives," "Elsmere Elsewhere," several theological works, and treatises on chess.

Burroughs, William, actor, born in Akron, Ohio, 1840; died in New York city, Nov. 9, 1898. He was graduated at Columbia College, and studied law in the office of Judge Edmunds, New York city, but in 1864 joined the Winter Garden Theater stock company, of which his brother Claude was a member, and made his first appearance in a small part, Aug. 18. The next year he organized a traveling company, with his brother and himself as the leading members, and played very successfully. In 1869 William became a leading member of the California Theater stock company, San Francisco, and participated in the opening of that house on Jan. 19, 1869, under the management of John McCullough and Lawrence Barrett. In the autumn of 1870 he returned to New York, and became leading man at Niblo's Garden Theater. When Madame Helena Modjeska came to New York in 1877 to appear before a metropolitan audience, Mr. Burroughs was engaged as her principal support. He was the Armand Duval to her Camille on the occasion of her first performance, Dec. 7 of that year, at the Fifth Avenue Theater. From 1880 to 1884 he played with various companies, and he retired with a modest competency in the last-mentioned year. He was a graceful, dignified, and painstaking actor. At the time of his death (the result of accidental leakage from a broken gas tube) he was secretary of the Actors' Society of America.

Burt, Mary Towne, benefactor, born in Cincinnati, Ohio, March 28, 1842; died in New York city, April 29, 1898. She was educated at Brown's Institute, Auburn, N. Y.; married Edward Burt, of that city, in 1865; and was identified with temperance work nearly all her life. She was the first president of the Auburn branch of the Women's Christian Temperance Union, and since 1882 had been president of the New York State Society of the

Union. In 1875 she became the publisher, and subsequently the editor, of "Our Union," the organ of the society, and in 1878-'80 was the corresponding secretary of the National Union. For several years Mrs. Burt had had charge of the legislative interests of the union, and several laws for the protection of women and young girls resulted from her efforts.

Busteed, Richard L., lawyer, born in Cavan, Ireland, Feb. 16, 1812; died in New York city, Sept. 14, 1898. He was admitted to the bar in 1846; was appointed corporation counsel of New York city in 1856, and held this office for three years. He took an active part in the presidential campaign of 1860, and was a bitter opponent of Abraham Lincoln; but after the attack upon Fort Sumter he became a war Democrat. He was appointed brigadier general of volunteers, Aug. 17, 1862, and was stationed first in New York and then in Washington. In December, 1862, he assumed command of a brigade at Yorktown. He was appointed United States district judge of Alabama, Sept. 17, 1863, and was unanimously confirmed by the Senate on Jan. 20, 1864. In November, 1865, Judge Busteed had a controversy with the military authorities in Alabama that involved important questions relating to the suspension of the *habeas corpus* act. In 1874 he resigned his office and returned to New York city, where he resumed the practice of law.

Butterworth, Benjamin, lawyer, born in Warren County, Ohio, Oct. 22, 1839; died in Thomasville, Ga., Jan. 16, 1898. He was the son of a Virginian Quaker slaveholder, who had freed his slaves and removed to Ohio, where he co-operated with Levi Coffin in promoting the escape to the North of fugitive slaves. Benjamin was educated at Ohio University, and was admitted to the bar in Cincinnati in 1861. Soon afterward he enlisted in an Ohio regiment, and during the war was promoted to the rank of major. In 1870 he was appointed United States district attorney for Cincinnati; in 1873 was elected to the State Senate; and in 1878 and 1880 was chosen to Congress as a Republican. While in Congress he drafted the compulsory retirement act for the army. He was appointed a commissioner to examine a part of the Northern Pacific Railroad in 1883, and was retained by the Government to prosecute the South Carolina election cases. Toward the close of that year he was appointed commissioner of patents, resigning in 1884 on being again elected to Congress, to which he was also returned in 1886 and 1888. From its inception to its close he was connected with the World's Columbian Exposition in an executive capacity. On retiring from Congress he practiced in Washington, chiefly in patent law, till April, 1897, when he was again appointed commissioner of patents.

Callis, John B., soldier, born in Fayetteville, N. C., Jan. 3, 1828; died in Lancaster, Wis., Sept. 23, 1898. He went to Wisconsin in 1840. At the outbreak of the civil war he became captain in the 7th Wisconsin Volunteers; was promoted lieutenant colonel in 1862; wounded at Gettysburg, July 1, 1863; and mustered out of the service Dec. 29. He entered the regular army as captain in the 45th Infantry; was brevetted brigadier general, March 7, 1864, and, later, major and lieutenant colonel. He served as superintendent in the War Department till December, 1865, when he was sent to Huntsville, Ala., as assistant commissioner of the Freedmen's Bureau. He resigned this commission, Feb. 4, 1868. He was elected to Congress from the 5th Alabama District in 1868, and he introduced the original resolution on which was afterward based the Ku-Klux-Klan bill.

Campbell, Alexander, legislator, born in Concord, Pa., Oct. 4, 1814; died in La Salle, Ill., Aug.

9, 1898. He received a common-school education; became a clerk in an iron manufacturing establishment at an early age; was promoted to the superintendency, and continued in the business of managing iron works in Pennsylvania, Kentucky, and Missouri till 1850. He then removed to La Salle, where he was elected mayor in 1852 and 1853; member of the legislature in 1858 and 1859, and delegate to the State Constitutional Convention in 1862. In 1875 he was elected to Congress as an Independent, serving one term. He was widely known as the "father of the Greenbackers."

Campbell, Hugh J., jurist, born in Pennsylvania in 1831; died in Yankton, S. D., April 19, 1898. He removed to Muscatine, Iowa, in early life, and was studying law there when the civil war broke out. Under a commission from Gov. Kirkwood he raised the first regiment of Iowa volunteers, and at the close of the war had reached the rank of brigadier general. He then finished his law studies, was admitted to the bar, and removed to Louisiana to practice. While there he was appointed a United States court judge, and after the presidential election of 1876 presided over the contest of the rival presidential electors, his decision giving the electoral vote of the State to the Republican candidate. In 1877 he removed to Dakota Territory, and for some time held the office of United States district attorney. He was a leader in the movement for dividing and admitting the Territory as two States; was a delegate to the various conventions; and was known throughout South Dakota as the "father of Statehood."

Capron, Allyn, soldier, born in Tampa, Fla., Aug. 27, 1846; died near Fort Myer, Va., Sept. 18, 1898. He was a son of Capt. Erastus A. Capron, who was killed at Churubusco in the Mexican War. He was graduated at the United States Military Academy and commissioned a 2d lieutenant in the 1st Artillery, June 17, 1867; promoted 1st lieutenant, Aug. 19, 1873; and captain, Dec. 4, 1888. He devoted himself particularly to artillery tactics and became an honor graduate of the Artillery School in 1873. In the Spanish-American War his battery accompanied Gen. Shafter's corps to Cuba, and took part in the battle of Santiago. He led the advance of Gen. Lawton's command, July 1, 1898, and fired the first shot of the fight. A shot from his battery tore away the Spanish flag on the fort at El Caney, and his effective fire aided in driving the Spaniards to the inner line of Santiago's defenses. He contracted typhoid fever as a result of the Cuban campaign, and died three weeks after his return home. His son, ALLEN KISSAM CAPRON, was born in Brooklyn, N. Y., June 24, 1871; died at La Guasimas, Cuba, June 24, 1898. He was educated at the Brooklyn High School; enlisted in the army at Fort Myer, Oct. 20, 1890; was commissioned 2d lieutenant in the 5th Infantry, October, 1893; and transferred to the 7th Cavalry, December, 1894. He enlisted in the 1st United States Volunteer Cavalry, popularly known as the "Rough Riders," at Fort Sill, Indian Territory; was made a captain; and was killed in the battle of La Guasimas.

Carpenter, Alonzo P., jurist, born in Waterford, Vt., Jan. 28, 1829; died in Concord, N. H., May 21, 1898. He was graduated at Williams College in 1849, and became principal of the high school in Bath, N. H. He studied law, was admitted to the bar in 1853, and practiced in Bath till 1863, when he was appointed county solicitor. This office he held for ten years, and then resumed private practice. In 1881 he was appointed an associate justice of the Supreme Court of New Hampshire, and on the death of Chief-Justice Charles Doe, in 1896, he was commissioned his successor on

the unanimous recommendation of his associates and the bar of the State. He would have retired by reason of age limitation in 1899.

Carpenter, Cyrus C., surveyor, born in Susquehanna County, Pa., in 1829; died in Fort Dodge, Iowa, May 29, 1898. When ten years old he was left an orphan without a dollar for his care. He picked up a limited education in a district school, and apprenticed himself to a tailor. Subsequently he attained considerable success as a fuller. In 1854 he removed to Iowa, engaged in surveying Government lands, and taught the first school in Fort Dodge. Then he became a land agent, and in 1858 was elected to the Legislature. He served in the army through the civil war, was commissary of subsistence on Gen. Dodge's staff for two years and on Gen. Logan's for one year, and was mustered out with the rank of lieutenant colonel. In 1866 and in 1868 he was elected register of the State Land Office, and in 1872-'76 he was Governor of the State. He was admired by both political parties for his inflexible integrity.

Cartland, Joseph, educator, born in Lee, N. H., in 1810; died in Newburyport, Mass., June 1, 1898. He was of old Quaker stock, and was among the original advocates of the abolition of slavery in the United States. He adopted the profession of teaching, was for many years superintendent of Haverford Friends' College, Pennsylvania, and after his marriage to Gertrude Whittier, a cousin of the poet, he and his wife were joint principals of the Friends' School at Providence, R. I. Much of the last part of Whittier's life was passed with the Cartlands, and they cared for him in his last illness.

Case, Rufus King, military officer, born in Hunterdon County, N. J., Dec. 12, 1840; died in Plainfield, N. J., June 18, 1898. When the civil war broke out he enlisted in the 6th New Jersey Volunteers, and was detailed to the quartermaster's department. He was mustered out in September, 1864, and two months afterward was commissioned captain and assistant quartermaster of volunteers by President Lincoln, and became assistant chief quartermaster of the Army of the Potomac, with which he served to the close of the war. In 1866 he was brevetted major for faithful and efficient services, and lieutenant colonel, to date from March 13, 1865, "for gallant, faithful, and meritorious services during the war." Shortly after the war he entered the quartermaster's department of the regular army, and served as chief clerk of the New York depot till his death. From the destruction of the "Maine" he had worked days, nights, Sundays, and holidays, his duties steadily increasing as the war with Spain advanced, and this strain caused his death.

Cattell, William Cassidy, educator, born in Salem, N. J., Aug. 30, 1827; died in Philadelphia, Pa., Feb. 11, 1898. He was graduated at Princeton College in 1848, and at Princeton Theological Seminary in 1852; took a post-graduate course at the seminary in Oriental languages, history, and bibliography; and was assistant principal of Edgehill Seminary in 1853-'55. From 1855 till 1860 he occupied the chair of Latin and Greek in Lafayette College, Easton, Pa., and then for three years was pastor of the Pine Street Presbyterian Church in Harrisburg. In 1863 he was called to the presidency of Lafayette College, and in the ensuing twenty years more than \$1,000,000 was contributed to the institution through his efforts, and the grounds, buildings, and equipment were largely increased. The General Assembly of the Presbyterian Church in the United States sent him as a commissioner to the Presbyterian Church in Scotland in 1869, and to the Reformed Church in Bohemia in 1881. He resigned the presidency of Lafayette in 1883, and had after-

ward resided in Philadelphia, where till his death he was corresponding secretary of the Presbyterian Board of Ministerial Relief. Dr. Cattell received the degree of D. D. from Hanover and Princeton Colleges, and LL. D. from Wooster.

Chalmers, James Ronald, lawyer, born in Halifax County, Va., Jan. 11, 1831; died in Memphis, Tenn., April 9, 1898. He was a son of Joseph W. Chalmers, a former United States Senator from Mississippi; removed to that State in 1839; and was graduated at South Carolina College in 1851. He was admitted to the bar in 1853; was elected district attorney of the 7th Judicial District of Mississippi in 1858; was chairman of the Committee on Military Affairs in the Secession Convention of his State in 1861; and entered the Confederate army as a captain on the outbreak of the civil war. In April, 1861, he was elected colonel of the 9th Mississippi Regiment; in February, 1862, was promoted brigadier general; in the following year was transferred to the cavalry service; and in May, 1865, while commanding the 1st Division of Forrest's Cavalry Corps, surrendered. Gen. Chalmers was charged with being responsible for the massacre of 300 Union soldiers, white and black, at Fort Pillow, and the event was the subject of a congressional investigation. In 1876-'77 he was a State Senator. He was elected to Congress as a Democrat from the 2d Mississippi District in 1876 and 1878. In 1880 he received the certificate of reelection, but was unseated after a contest by John R. Lynch, and in 1882, when an independent candidate, he was deprived of his certificate, and, contesting the election, was declared entitled to the seat in Congress in June, 1884.

Chase, Alden Fitzroy, educator, born in Woodstock, Me., Oct. 16, 1842; died at Kent's Hill, Me., Oct. 22, 1898. He was graduated at Middletown (Conn.) University in 1869 with highest honors, and taught in Wilbraham, Mass., from 1869 to 1871. From 1871 to 1883 he occupied the chair of Mathematics and English Literature in the Maine Wesleyan Seminary and Female College, at Kent's Hill. From 1883 to 1884 he was principal of the High School at Milbury, Mass. In 1884 he was elected to the presidency of the East Maine Conference Seminary, at Bucksport, which office he resigned in 1896 to accept the presidency of the seminary and college at Kent's Hill, where he died. He was a member of the Maine Conference, and preached occasionally, but his time and energies were devoted mainly to the duties of his professorship. As a boy Dr. Chase was considered a prodigy in mathematics, and his profound scholarship and genial bearing made him a leader among the educators of Maine.

Cisneros, Francisco Javier, patriot, born in Santiago de Cuba in 1836; died in New York city, July 7, 1898. He was graduated at the School of Engineering in Havana and at Rensselaer Polytechnic School, Troy, N. Y., and was immediately engaged by a English syndicate to superintend the building of railroads in Cuba. From early youth he had been opposed to Spanish rule in Cuba, and when the revolution of 1868 broke out he came to the United States, and for six years organized every filibustering expedition that sailed for Cuba. While directing one of them he was captured by a United States vessel and held as a prisoner for some time in Charleston. In 1874, having impoverished himself in efforts to free his native island, he went to the United States of Colombia and engaged in engineering work, in which he acquired a second large fortune. He returned to New York less than a month before his death, on what was believed to be a secret mission to the Government. Throughout the revolution preceding the war between the

United States and Spain he gave large sums of money to promote the cause of the Cubans in their struggle for independence.

Cochran, John, lawyer, born in Palatine, Montgomery County, N. Y., Aug. 27, 1813; died in New York city, Feb. 7, 1898. His grandfather, for whom he was named, was a surgeon in the French and Indian and the Revolutionary Wars. John was graduated at Hamilton College, Clinton, N. Y., in 1831, and was admitted to the bar in Oswego, N. Y., in 1834. He practiced in Oswego till 1845, and then removed to New York, where he speedily attracted attention by his abilities as a lawyer and an orator. In 1853-'57 he was surveyor of the port of New York, and in 1857-'61 he represented the 6th New York District in Congress. On June 11, 1861, he was appointed colonel of the 1st United States Chasseurs, which he commanded in the Peninsula campaign. In the autumn following he made a memorable speech in favor of arming the slaves against their masters. On July 17, 1862, he was commissioned a brigadier general of volunteers, and given a brigade in Gen. Couch's division of the Army of the Potomac. He resigned his commission because of failing health, Feb. 27, 1863. In the following year the National Convention of Independent Republicans nominated him for Vice-President of the United States on the ticket headed by Gen. John C. Fremont, but he declined because he favored the reelection of President Lincoln. During 1863-'65 he was Attorney-General of the State of New York, elected as a war Democrat. He was a delegate to the National Liberal Republican Convention in 1872, and was chiefly instrumental in securing the nomination of Horace Greeley for President. The same year he was president of the Common Council of New York city, and acting mayor during the temporary retirement of Mayor Hall. In 1883 he was again elected to the council as a Republican, but afterward he returned to the Democratic party. His last public office was that of police justice, which he held for a short time in 1889.

Collier, James Walter, actor, born in New York city, 1834; died there, May 13, 1898. He made his first appearance on the stage in "La Tour de Nesle," at Newark, N. J., and in 1859 appeared as Rolando in "The Honeymoon," in support of Charlotte Cushman at Niblo's Garden. He immediately became very popular in New York city as a graceful and handsome leading juvenile man. He married Mary Mitchell, sister of Maggie Mitchell, and after five years at Niblo's Garden he became leading man with that actress and played with her many years. About 1876 Mr. Collier became associated with Sheridan Shook and A. M. Palmer, and managed the "road" tours of all the Union Square Theater successes. Out of these ventures he made a great deal of money, which was lost in an effort to manage the Union Square Theater. His last appearance on the stage was at a benefit given him at the New York Academy of Music, June 24, 1895.

Colton, Gardner Quincy, scientist, born in Georgia, Vt., Feb. 7, 1814; died in Rotterdam, Holland, Aug. 11, 1898. He received a common-school education; was apprenticed to the chair-making trade, and followed it in St. Albans till 1835; and then spent seven years in New York, working at his trade and writing for the press. In 1842 he began studying medicine with Willard Parker, M. D., and at the College of Physicians and Surgeons, and two years later he undertook a series of popular lectures on philosophical and chemical topics, with exhibitions of the marvels of electricity and the novel effects of nitrous oxide, or, as it became more generally known, "laughing gas." On Dec. 10, 1844, while he was delivering a lecture in Hartford, Conn., and illustrating some of the amusing effects pro-

duced by inhaling the gas, one of his subjects, who had bruised himself while under the influence of the gas, declared after the effects had passed off, that he had felt no pain whatever while under its influence. The late Dr. Horace Wells, a dentist, who was present, was greatly interested in the circumstance, and suggested the possibility of extracting teeth without pain by the use of the gas. The next day Dr. Wells inhaled the gas and had a tooth drawn by Dr. Riggs, a fellow-dentist, without any pain. This is said to have been the birth of the practical knowledge of anesthetics. Dr. Wells induced Dr. Colton to teach him the method of making and administering the gas, and began using it in his own practice. At this point a controversy arose which excited much bitterness for many years. Dr. Colton claimed that Dr. Wells had tried without success to induce several dentists in Boston to try the gas; that one of them, Dr. William T. G. Morton, conceived the idea from Dr. Wells's experiment of using sulphuric ether as an anæsthetic and tried it with success; and that Dr. Charles T. Jackson, a physician with whom Drs. Wells and Morton had studied, claimed the discovery of anæsthesia on the ground that he had suggested Dr. Morton's experiments. In Dr. Colton's judgment, Dr. Wells was the accidental discoverer. In 1847 Dr. Colton devised and had made from his plans the first electrical locomotive on record, a toy construction operated by an ordinary cell battery, and exhibited by him in his lectures, but not deemed of sufficient importance to be patented. Since 1863 he had been interested in large dental establishments in New York and elsewhere.

Concilio, Januarius de, clergyman, born in Naples, Italy, Jan. 7, 1835; died in Jersey City, N. J., March 23, 1898. He was educated at the college Brignoli Sali, Rome, and ordained a priest in Geneva in 1860. He came to the United States the same year, and was assistant in the Church of Our Lady of Grace, in Hoboken, N. J., from April till September. He was appointed Professor of Theology in Seton Hall College, but resigned the chair because of failing health. He was assistant rector of St. Mary's Church, Jersey City, from 1861 till 1867. When the parish of St. Michael's was established, in 1867, he was appointed its curate, and he was in charge of it till his death. The title of Monsignor was conferred upon him by the Pope in 1886. He contributed frequently to Catholic periodicals, and published "Catholicity and Pantheism" (1874); "The Knowledge of Mary" (1878); "Intellectual Philosophy" (1878); and "Harmony between Science and Revelation" (1890).

Conger, Omar Dwight, lawyer, born in Coopers-town, N. Y., in 1818; died in Ocean City, Md., July 11, 1898. When six years old he removed with his father to Huron County, Ohio. He was graduated at Western Reserve College in 1842; was appointed to the United States Geological Survey, and spent two years in surveying work in the Lake Superior iron and copper region; and began practicing law in Port Huron, Mich., in 1848. In 1850 he was elected judge of the St. Clair County court for a term of five years, and on its expiration was three times elected to the State Senate, serving till 1861, and acting as president *pro tem.* during the last term. He was a delegate to the National Republican Convention and a presidential elector in 1864, a member of the State Constitutional Convention in 1866, a representative in Congress in 1869-'81, and a United States Senator in 1881-'87. After retiring from the Senate he practiced law in Washington.

Conover, George S., historian, born in Brooklyn, N. Y., Nov. 7, 1824; died in Geneva, N. Y., July 5, 1898. During his early manhood he was engaged in mercantile business in New York. He removed

to Varick, Seneca County, N. Y., in 1850, and since 1870 had lived in Geneva. Soon after settling in Seneca County he began studying the early history of the region, and from this he became widely known as an authority on the Indian occupation and pioneer settlement of western New York. In 1877 he began a history of the Indian village of Kanadesaga, which occupied the site of the present city of Geneva. This work rapidly broadened till it reached four large volumes and became really a history of western New York. This history was never published, but Mr. Conover made four copies of it, which were presented to the State Library and the Buffalo, Rochester, and Waterloo Historical Societies. In 1855, under the authority of a legislative act, he began compiling the journals of the officers of Gen. Sullivan's army that invaded western New York in 1779 to chastise the Indians. This work was published in 1887. Mr. Conover also wrote many pamphlets, those on Red Jacket and Sayenguerahta, or "Old Smoke, the King of the Senecas," being particularly valuable. About ten years ago he was adopted into the Seneca tribe on their reservation at Brantford, Canada, and received the name of Hy-we-Saus, meaning "The Investigator."

Conrad, Frederick William, author and journalist, born in Pine Grove, Pa., Jan. 3, 1816; died in Philadelphia, April 10, 1898. He received his preparatory training in Mount Airy College, Germantown, Pa., 1828-'31, his theological training in the seminary at Gettysburg, 1837-'39, was licensed as a minister in the Lutheran Church in 1839, and became pastor of St. Peter's Church, Pinegrove, and of several other congregations in the vicinity. Subsequently he was pastor at Waynesboro and vicinity, 1841-'44; Hagerstown, Md., 1844-'50; Professor of Modern Languages in Wittenberg College, Springfield, Ohio, and of Homiletics and Church History in the same institution; pastor of the College Church and associate editor of the "Evangelical Lutheran," 1850-'55; pastor of the First Lutheran Church at Dayton, Ohio, 1855-'62; Trinity Church, Lancaster, Pa., 1862-'64; and at Chambersburg, Pa., 1864-'66. During his pastorate at Lancaster, in 1862, he became joint owner and editor of the "Lutheran Observer," and on the removal of the publication office to Philadelphia, he resigned his pastorate, removed to that city in 1866, and became the editor in chief, which place he held until his death. He received the degree of D. D. from Wittenberg College, and that of LL. D. from Roanoke College, Virginia. Dr. Conrad participated in all the general movements of the Church in this country in connection with the General Synod. He was a gifted speaker and a ready writer. As editor of the most extensively circulated periodical of the General Synod, he helped to shape its policy for many years. He was a frequent contributor to the "Lutheran Quarterly," as well as to other periodicals. He published numerous pamphlets and several books, among the most important of which are "Baptism," "The Call to the Ministry," "Worship and its Forms," and "Luther's Small Catechism Explained and Amplified" (Philadelphia, 1886), of which more than 30,000 copies have been sold.

Cooke, Martin Warren, lawyer, born in Whitehall, N. Y., March 2, 1840; died in Rochester, N. Y., Feb. 25, 1898. He was graduated at the University of Rochester in 1860; was admitted to the bar there in 1863; and was actively engaged in his profession till within a few weeks of his death. For many years he was a Supreme Court examiner of applicants for admission to the bar, and he was several times chairman of the board. He was a member of the executive committee of the New York State Bar Association from its organization, was its

treasurer several years, and was twice elected president of the association. In 1889 he was defeated as the Republican candidate for State Comptroller, though he ran far ahead of his ticket, and in 1897 he was chosen by the Supreme Court and county judges the first jury commissioner of Monroe County under a new law. Mr. Cooke had given much time to literary and scientific work; was a member of the American Association for the Advancement of Science, and of several clubs; and had published "The Human Mystery in Hamlet." He was strongly attached to the University of Rochester, and had long served it as trustee and attorney.

Cooley, Thomas McIntyre, jurist, born near Attica, N. Y., Jan. 6, 1824; died in Ann Arbor, Mich., Sept. 12, 1898. He removed to Michigan in 1843, and after his admission to the bar in 1846 practiced for a time in Tecumseh, and settling later in Adrian in the same State edited the "Watch Tower." In 1857 he was appointed by the Michigan Legislature to compile and publish the laws of the State, and in the following year became reporter of the Supreme Court decisions. In 1859 he was made a professor of law in the University of Michigan, and he was for many years dean of the faculty prior to 1885. In 1864 he was elected a justice of the Supreme Court of Michigan, and he was re-elected in 1869 for eight years, having served as Chief Justice in 1868 and 1869. He retired from the bench in 1885, and for the next three years was Professor of American History in the University of Michigan and also lecturer on constitutional law. Under President Cleveland he held for four years the office of Interstate Commerce Commissioner. Owing to failing health he retired from active life in 1891. He contributed frequently to periodicals, but will be best remembered by his chief work, "The Constitutional Limitations which rest upon the Legislative Power of the States of the American Union" (Boston, 1868), a standard authority. His other works, original and compiled, include "Report of Cases in the Supreme Court of Michigan, 1858-'64" (Detroit, 1859-'64); "Digest of Michigan Reports" (Detroit, 1866); "A Treatise on the Law of Taxation" (Chicago, 1876); "Treatise upon Wrongs and their Remedies, Vol. I, Principles of the Law of Torts" (Chicago, 1878); "The General Principles of Constitutional Law in the United States" (Boston, 1880); "Michigan: A History of Government" (Boston, 1885); "The Acquisition of Indiana" (Indianapolis, 1887).

Cooney, Myron A., journalist, born in Dublin, Ireland, in 1841; died in Albany, N. Y., June 21, 1898. He received a collegiate education in his native city, and, removing to the United States in 1860, became a clerk on a Mississippi steamboat. At the beginning of the civil war he entered the service of the New York "Herald" as a war correspondent, and at its close he was appointed musical and dramatic editor of the paper. He remained in New York till 1885, when he went to Albany, where he assumed the editorship of the "Argus," with which he remained till 1891. During the succeeding years of his life he was a legislative correspondent for several newspapers and financial clerk in the Department of Public Instruction. A large part of Mr. Cooney's education was musical, and he wrote a great number of carols, waltzes, English librettos to popular operas, and songs, composing both the words and the music. His "Nautilus Waltz" was made a great success by Theodore Thomas, and his musical Roman drama entitled "Cæcilla," which was written for the Convent of the Sacred Heart of Sharon, was produced on a grand scale by the Lazarist Fathers of Baltimore in 1874.

Cooper, Margaret Sunderland, philanthropist, born in Quincy, Mass.; died in Hyde Park, Mass., Aug. 6, 1898. She was a daughter of Le Roy Sunderland, a well-known Methodist preacher and author. From early womanhood she had been actively engaged in humanitarian work. She was a vice-president of the Massachusetts Society for the Prevention of Cruelty to Animals, a director of the American Humane Association, and a director of the New England Anti-Vivisection Society. So great was her interest in dumb animals that at one time she obtained an appointment under which she superintended the transportation of cattle. Her literary work was principally in behalf of dumb animals, and the strongest of it was in opposition to the practice of vivisection. For long-continued, efficient, and courageous service she was awarded the gold medal of the American Humane Association in 1883.

Cothren, William, lawyer, born in Farmington, Me., Nov. 28, 1819; died in Woodbury, Conn., March 12, 1898. He was graduated at Bowdoin College in 1843; removed to Woodbury and was admitted to the bar in 1845. In 1856 he was admitted to practice in the United States circuit court, and in 1865 in the United States Supreme Court. Mr. Cothren was best known as an authority on Connecticut genealogy, and was the author of a "History of Ancient Woodbury" and other works.

Couldock, Charles Walter, actor, born in Long Acre, London, England, April 26, 1815; died in New York city, Nov. 27, 1898. He made his first appearance on the stage at Sadler's Wells Theater, London, as Othello, under the name of Mr. Fortescue in 1837. At the age of nine years he had begun to learn the trade of carpenter with his stepfather, and at thirteen had taken employment in a silk warehouse, where he worked nine years as an errand boy and clerk. His adoption of the stage was the result of an enthusiastic admiration of the acting of William C. Macready, of whose characteristic methods Couldock always remained somewhat of an exponent. After his *début* at Sadler's Wells he took a country engagement at Farnham, Surrey, but after six months of ill-paid work there he joined Jackman's traveling company, the first of that kind in vogue, and shared its fortunes for two years. Affection for a young lady whom he met during this term led him to relinquish the drama and return to mercantile life. He was employed in a wholesale dry-goods house in London for two years, during which he ineffectually tried to induce the young lady to marry him. At the same time he became a prominent member of an amateur dramatic company called "The Shakspearean," of which Dion Boucicault, then known as Lee Moreton, and other distinguished people were members. In the performances of this society, given at the St. James's Theater, Drury Lane, and the Italian Opera House, Couldock played such parts as Iago, Petruchio, Hotspur, and Antonio. His resumption of the actor's calling took place with the stock company at Gravesend in the autumn of 1841. At the close of a season at Gravesend he joined the stock company of the Bristol and Bath Circuit in support of John Vandenhoff. In Bristol he married Louisa Smith, with whom he lived happily until her death, in 1877. Following his Bristol engagement he was for a time with the company playing at Southampton, from which he went to become a leading man and public favorite in Edinburgh. On Dec. 26, 1846, he began a prosperous engagement with the stock company playing in Liverpool and Birmingham with a performance of Sir Giles Overreach in the last-named city. Here Mr. Couldock was the principal support of all the prominent actors of his day,

and here he met Charlotte Cushman, who offered him the place of leading man with her on her return to the United States. He had also an offer to play with Macready in London in the production of a new piece named "Philip van Artevelde," but upon Charles Kean's advice that the venture was likely to fail he accepted Miss Cushman's proposal. Mr. Couldock's first appearance in the United States was at the Broadway Theater, Oct. 8, 1849, in the part of the Stranger to Miss Cushman's Mrs. Haller. During the Broadway engagement he played Macbeth, St. Pierre in "The Wife of Man-tua," Master Walter in "The Hunchback," Othello, Wolsey, Duke Aranza in "The Honeymoon," Benedick in "Much Ado about Nothing," and King Lear. He was most cordially received by the Americans, not only in New York, but in all the principal cities of the country, and in the autumn of 1850, when Miss Cushman returned to Europe, he remained in the United States and accepted an engagement at the Walnut Street Theater, Philadelphia, as leading man. He held this place for four years. During the second year of his work in this theater Madame Celeste came there as a star, and among other plays produced one which had been sold by Dion Boucicault to Benjamin Webster in London in 1845 but never played. This was called "The Willow Copse," and was in effect an adaptation of a well-known French play called "La Closerie des Genets." At the opening performance at the Walnut Street Theater, May 24, 1852, so masterly was Couldock's rendition of the character of Luke Fielding that after the performance Madame Celeste gave him the play, saying as she did so: "Mr. Couldock, this is not my play; it is yours. Accept it." At the close of his stock season he played Luke Fielding to delighted audiences for three weeks at the Chatham Street Theater, New York, and subsequently starred in the same part in Philadelphia. When his engagement at the Walnut Street Theater ended in 1854 he became a popular "star," varying his presentation of "The Willow Copse," which was generally demanded everywhere, with performances of Hamlet, Othello, Richelieu, and Richard III. Hard times fell upon the drama in 1857, and Mr. Couldock accepted a stock engagement at Laura Keane's Theater, New York city. His first appearance there was in the part of Luke Fielding, Aug. 25, 1858, with Miss Keane as Rose Fielding, Joseph Jefferson as Augustus, and E. A. Sothorn as Sir Richard Vaughan. He soon afterward, September 1858, played Louis XI for the first time in the United States at the same theater, and on Oct. 18 of the same year appeared as Abel Murcot in the first performance of "Our American Cousin." The season of 1859-'60 he spent in New Orleans in a company managed by John E. Owens. From 1861 to 1878 he played many starring engagements, and in the latter year was a member of a stock company at the Fifth Avenue Theater, New York city, supporting Madame Modjeska on her first appearance in New York. He also made in the same year a strong impression in the part of Risler Aîné in an adaptation of Alphonse Daudet's "Froment Jeune et Risler Aîné," afterward played at the Madison Square Theater under the name of "Partners." In September, 1879, Mr. Couldock was engaged by Steele Mackaye for the opening of the Madison Square Theater, New York city. Mr. Mackaye had adapted from an older drama a play which he called "An Iron Will," in which the principal character was fashioned upon the lines of Luke Fielding. This play was produced at Providence, R. I., Oct. 27, 1879, Mr. Couldock playing the leading character, and on the completion of the Madison Square Theater was introduced to New York audiences on that stage, Feb. 4, 1880, as

"Hazel Kirke," with Mr. Couldock as Dunstan Kirke. The play ran until May 31, 1881, and was then performed for several years consecutively throughout the United States and Canada. It is said that Mr. Couldock played Dunstan Kirke more than 1,500 times. In April, 1886, Edwin Booth and Signor Salvini appeared at the Academy of Music, New York, in "Othello." Mr. Couldock was a member of the company supporting them and played Brabantio, but his increasing age and the fact that he had been so long confined to one part caused him to give up activity in his calling. On May 11, 1888, Edwin Booth and Joseph Jefferson gave Mr. Couldock a testimonial benefit in honor of the closing of his fiftieth year on the stage. The performance, which took place at the Star Theater, New York, in the afternoon, was attended by an enormous audience and produced more than \$5,000 for the beneficiary. It consisted of the third act of "Hamlet," Edwin Booth as Hamlet, Charles Barron as the Ghost John Malone as King Claudius, and Mrs. Augusta Foster as Queen Gertrude; the screen scene from "The School for Scandal," Fanny Davenport as Lady Teazle, John Gilbert as Sir Peter Teazle, Robert Mantell as Charles Surface, and John H. Barnes as Joseph Surface; recitation of Trowbridge's "Vagabonds," C. W. Couldock; the fourth act (quarrel scene) of "Julius Cæsar," Cassius, Lawrence Barrett; Brutus, John Malone; the third act of "The Rivals"—Bob Acres, Joseph Jefferson; Sir Lucius O'Trigger, James O'Neill; Captain Absolute, Kyrle Bellow; Mrs. Malaprop, Mrs. John Drew; Lydia Languish, Miss Annie Robe. When "Alabama" was produced at the Madison Square Theater, New York, in 1894, Mr. Couldock was again before the public in a congenial character, that of Colonel Preston. On May 7, 1895, another testimonial benefit of \$6,000 was given to him at the Broadway Theater, New York. On that occasion "The Rivals" was played, with Joseph Jefferson as Bob Acres, William H. Crane as Sir Anthony Absolute, Henry Miller as Captain Absolute, N. C. Goodwin as Sir Lucius O'Trigger, Thomas W. Keene as Falkland, De Wolfe Hopper as David, Mrs. John Drew as Mrs. Malaprop, Miss Viola Allen as Lydia, and Miss Nellie McHenry as Lucy. Mr. Couldock's last appearance on the stage was made at the Star Theater, New York, in the character of Dunstan Kirke on Sept. 10, 1898. His method was marked with great power of pathos and feeling. In his youth and middle age intensity and fire in the rendition of heroic and tragic rôles were quite as remarkable as the strong emotional qualities, but these qualities were necessarily mellowed and softened in the later years of his career by the fact of his great age.

Cox, James Farley, military officer, born in Locust Valley, Long Island, N. Y., Feb. 1, 1830; died in New Brighton, Staten Island, N. Y., June 24, 1898. He took a partial collegiate course, and, after a brief service in a dry-goods house in New York city, entered the office of the Mercantile Marine Insurance Company, and made a special study of the adjustment of averages. In this line he soon became so expert that when twenty-five years old he was chosen vice-president of the Great Western Marine Insurance Company. Subsequently he originated and carried to success the system of individual underwriting in this country, and with the late Douglass Robinson, then his partner, created the United States Lloyds. He was one of the organizers of the 22d Regiment, N. G. S. N. Y., and served in it in every rank from private to colonel. In 1862 he served in the National army in Baltimore and at Harper's Ferry, and in 1863 took part in the memorable march to Harrisburg and Carlisle, following Gen. Fitzhugh Lee's retreating army, and returned

to New York in time to aid in defending it during the draft riots.

Cragin, Aaron H., lawyer, born in Weston, Vt., Feb. 3, 1821; died in Washington, D. C., May 10, 1898. He was admitted to the bar in Albany, N. Y., in 1847, and settled in Lebanon, N. H., the same year. In 1852 he was elected to the Legislature, where he served four continuous terms; in 1854 and 1856 he was elected to Congress on the American ticket; in 1859 was again elected to the Legislature; and in 1860 was a delegate to the National Republican Convention in Chicago. He was elected United States Senator, and took his seat in 1865, and was re-elected in 1870 for the term expiring March 3, 1877. During his last term he was chairman of the Committee on Naval Affairs and a member of the Committees on Territories and Railroads.

Cramer, Michael John, clergyman, born in Schaffhausen, Switzerland, Feb. 6, 1835; died in Carlisle, Pa., Jan. 23, 1898. He came to the United States with his father in 1845, learned the printer's trade in Cincinnati, and was graduated at the Ohio Wesleyan University in 1860. After a service of four years in the Methodist ministry in Cincinnati and Nashville he was appointed a chaplain in the regular army, where he remained till 1867, when President Johnson made him United States consul at Leipsic. During his residence there he attended lectures on theology and philosophy at the Universities of Leipsic and Berlin, and preached every Sunday at an American chapel service, which he organized in Leipsic. In 1870 he was appointed by President Grant, whose sister he had married, United States minister to Denmark; and in 1881 President Garfield transferred him to Switzerland. He returned to the United States in the summer of 1885, having been elected Professor of Systematic Theology in Boston University. After a year there he resigned, removed to East Orange, N. J., and occupied the chair of Church History at Drew Theological Seminary for a year. In the autumn of 1897 he was elected Professor of Philosophy at Dickinson College, Carlisle, Pa., where he served until his death. He received the degree of D. D. from Syracuse University, and that of LL. D. from Ohio Wesleyan University. Dr. Cramer spoke five modern languages, and was an excellent Latin, Greek, and Hebrew scholar, and published a large number of essays of an exegetical and biblico-critical character. During his residence abroad he collected a working theological library of 5,000 volumes, many of them rare, which he announced he should bequeath to Ohio Wesleyan University.

Cruger, Stephen van Rensselaer, soldier, born in New York city, May 9, 1844; died in Bayville, N. Y., June 23, 1898. His great grandfather, John Cruger, was the first mayor of New York. His grandfather on his mother's side was Stephen van Rensselaer, of Albany. He was studying in Europe when the civil war began. He came home, and received a commission as 1st lieutenant in the 150th New York Regiment. He participated in the battle of Gettysburg in 1863, and for gallantry was promoted adjutant in August. His regiment joined Sherman's army, being assigned to the 20th Army Corps; and with it he took part in the Atlanta campaign. He was twice wounded at the battle of Resaca. It was feared that he would never be fit for service again, and an honorable discharge was sent him, but in the course of three or four months he applied for restoration to his command, and, being recommissioned, joined his regiment in September, 1864, and took part in the "march to the sea." In the battle of Averysboro his horse was shot under him. Previous to the surrender of Johnston Adjutant Cruger was promoted to the rank of captain, and was appointed chief of ordnance of the 1st Division,

20th Corps, commanded by Gen. A. S. Williams, in which post he served till mustered out in June, 1865. He was brevetted major and lieutenant colonel "for gallant and meritorious conduct during the campaign through Georgia and the Carolinas." In 1870 he was commissioned major of the 12th Regiment, N. G. S. N. Y.; promoted lieutenant colonel in 1875; and colonel in 1877, remaining in command of the regiment till 1888. In 1867 he entered the real-estate business, and some of the largest landed interests in New York city and its neighborhood were under his management. He was comptroller of Trinity Church corporation, and for a time senior warden of the church. In politics Mr. Cruger was a Republican, but he frequently opposed the leaders of his party, although he was a member of the Republican County Committee for years. In 1888 he was the candidate for Lieutenant Governor, but was defeated. He was a Park Commissioner under Mayor Strong, and for a time president of the Park Board. He was connected as director and trustee with many large corporations, and was trustee of the New York Public Library. He married Julie Grinnell, daughter of Thomas W. Storrow, of Boston, an author who writes under the pen name of Julien Gordon.

Crummell, Alexander, clergyman, born in New York city in 1819; died in Point Pleasant, N. J., Sept. 9, 1898. His father was a native of Africa, and young Crummell, after enjoying such meager educational facilities as were given to members of his race, in 1835 entered a school at Canaan, N. H., but the prejudice against the higher education of the negroes was so intense that he was not permitted to remain. Afterward he entered the Oneida Institute, remained there three years, and in 1839 applied for admission to the General Theological Seminary. His application caused bitter opposition and was refused. In 1848 he went to England and was graduated at Cambridge in 1853. Owing to his delicate health he then entered the missionary service and was located in Liberia twenty years, during which time he acted as principal of the Alexandria High School and president of the Liberia College. He went to Washington, D. C., in 1873 and founded St. Luke's Church, of which he was rector till 1895. In 1897 he organized in New York city the American Negro Academy. He published "The English Language in Liberia" (1861); "The Future of Africa" (1862); "The Negro Race not under a Curse" (1863); "The Greatness of Christ, and Other Sermons" (1882); and "Africa and America" (1891).

Currier, Moody, lawyer, born in Boscawen, N. H., April 22, 1806; died in Manchester, N. H., Sept. 23, 1898. He was graduated at Dartmouth College in 1834; became a teacher and editor; studied law and was admitted to the bar at Manchester in 1841. Though successful as a lawyer he gave up its practice to become cashier of the Amoskeag Bank in 1848, and in 1864 was elected president of the Amoskeag National Bank. Early in life he entered the Democratic party; was State Senator in 1843-'44; became an ardent Republican in 1854; and in 1860-'61 performed valuable service toward raising and equipping troops for the civil war. He was a presidential elector in 1876. He was unsuccessful as a candidate for Governor in 1882, but was elected to that office in 1884 by a three-fourths vote. Mr. Currier was a liberal friend of public libraries and churches, presenting more than 700 volumes to the library of Manchester and making gifts of money to colleges and academies. He acquired an intimate knowledge of the modern languages of Europe, and published for private circulation a volume containing translations from French, German, Italian, and Spanish. (See GIFTS AND BEQUESTS.)

Dahlgren, Madeleine Vinton, author, born in Gallipolis, Ohio, about 1835; died in Washington, D. C., May 28, 1898. She was a daughter of Samuel F. Vinton, a former member of Congress from Ohio. She first married, early in life, Daniel C. Goddard, of Zanesville, and, on being left a widow, married Rear-Admiral John A. Dahlgren in 1865. From her youth she was identified with the life of the national capital. Possessing large wealth, she maintained residences in Washington and South Mountain, Md. During the winter season she entertained with great liberality, and at South Mountain she was known as "Lady Bountiful." In 1859 she began publishing sketches and poems under the pen name of Corinne, and later she wrote under that of Cornelia. She was strongly opposed to the woman-suffrage movement, and for two years published a weekly paper against it, besides drawing up a petition to Congress, to which she obtained many signatures, asking that the elective franchise should not be extended to women. Mrs. Dahlgren was a founder and vice-president of the Literary Society of Washington, which met at her house for several years, and a former president of the Ladies' Catholic Missionary Society of Washington. She had a large estate at South Mountain which she maintained in mediæval style. She erected two churches, established schools and a library, gave a number of the brightest boys a complete college education, and personally taught music and the languages to classes of girls. Her publications include "Idealities" (Philadelphia, 1859); "Thoughts on Female Suffrage" (Washington, 1871); "South Sea Sketches" (Boston, 1881); "Etiquette of Social Life in Washington" (Philadelphia, 1881); "South Mountain Magic" (1882); "A Washington Winter" and "Memoirs of John A. Dahlgren" (1882); "The Lost Name" and "Lights and Shadows of a Life" (Boston, 1886); and translations from the French—Montalembert's "Pius IX" and De Chambrun's "Executive Power," the last with preface by James A. Garfield (Lancaster, 1874), and from the Spanish—Donoso Cortes's "Catholicism, Liberalism, and Socialism." For her various services to the Roman Catholic Church she several times received the thanks of Popes Pius IX and Leo XIII.

Dana, James Jensen, soldier, born in Waltham, Mass., April 9, 1821; died in Keene, N. H., Sept. 15, 1898. He was graduated at the United States Military Academy, June 18, 1855, and entered the army as 2d lieutenant in the 4th Artillery, was promoted 1st lieutenant, Jan. 10, 1857; captain in the quartermaster's department, Aug. 3, 1861; major, Jan. 18, 1867; lieutenant colonel in the department of the quartermaster general, Feb. 13, 1882; and was retired April 9, 1885. In the volunteer service he was commissioned a lieutenant colonel in the quartermaster's department, Jan. 1, 1863; promoted colonel, Aug. 2, 1864; and brevetted brigadier general, March 13, 1865. After the civil war he served in New Mexico, Arizona, and Nebraska till his retirement.

Davenport, Fanny Lily Gipsy, actress, born in London, England, April 10, 1850; died in Duxbury, Mass., Sept. 26, 1898. She was the eldest child of Edward L. Davenport and Fanny Vining Davenport, well-known players. She made her first appearance on the stage as a child, Feb. 23, 1857, at the Chambers Street Theater, New York city (formerly Burton's), which was then under her father's management. She was named in the bill of the night as Miss Fanny, and sang a verse from "The Star-Spangled Banner." While E. L. Davenport was the manager of the Howard Athenæum, Boston, she again played a child's part, in John Brougham's burlesque of "Metamora," Aug. 12, 1857. Her first speaking part was King Charles I in the comedy

"Faint Heart ne'er Won Fair Lady," at Niblo's Garden, New York city, Feb. 14, 1862. She was then engaged for the stock company of Macauley's Theater, Louisville, Ky., where she made her first appearance in a leading part as Arline in "The Black Crook." While in this theater she first played Nancy Sikes in the dramatization of "Oliver Twist," and gave evidence of the tragic power for which she subsequently became famous. Leaving Louisville, she went to Mrs. John Drew's Arch Street Theater, Philadelphia, where she occupied the position of soubrette. While playing with Mrs. Drew she attracted the attention of Augustin Daly, who engaged her for his theater, the Fifth Avenue, in New York city. She made an immediate success as Lady Gay Spanker in "London Assurance." Her father was the Sir Harcourt Courtley. She was the principal attraction at the Fifth Avenue Theater from 1869 to 1873, and played a long line of exacting parts. She then became a "star," and for several years traveled throughout the United States with great success, playing Shakespearian heroines principally. In 1882 she went to London and began an engagement at Toole's Theater in an English version of "Diane de Lys." While abroad she made the acquaintance of Victorien Sardou, and obtained from him the American rights for his play of "Fedora," which was then being played by Sarah Bernhardt in Paris. She produced "Fedora" for the first time in the United States at the Fourteenth Street Theater, New York city, Oct. 1, 1883, and this occasion was the beginning of a series of triumphs for her in the works of the French dramatist. She produced in succession and with great financial and artistic results "La Tosca," "Cleopatra," and "Gismonda." She married, July 30, 1879, at her mother's home in Canton, Pa., Edwin F. Price, an actor. On June 8, 1888, she was divorced from Mr. Price, and on May 19, 1889, she married Willet Melbourne MacDowell, also an actor, who was playing in her supporting company as her leading man. She continued the arduous work of her profession, traveling everywhere in the United States and Canada up to the moment of the illness that caused her death. In October, 1897, she produced in Boston an elaborate and expensive rendering of "The Soldier of France," an English adaptation of "Jeanne d'Arc." The venture was a failure and occasioned Miss Davenport much regret and anxiety. She finally succumbed to a perilous impairment of the action of the heart, and was obliged suddenly to close her dramatic season at Chicago, March 25, 1898, her last appearance on the stage having been the night before at the Grand Opera House in that city.

Davis, Margaret Ellen O'Brien, author, born in Montgomery, Ala., Nov. 19, 1870; died in Birmingham, Ala., April 1, 1898. She was the daughter of Frank P. O'Brien, journalist and artist, and was educated in Loretto Convent, Marion County, Ky. After being graduated she returned home and began writing poems, short stories, and book reviews for the "Daily Herald." Her work attracted favorable attention, particularly through the South, and led to a contributing connection with several periodicals. The publication of "Judith, the Daughter of Judas" (Philadelphia, 1889), a novel, proved a success. During the time her father controlled the "Age-Herald," of Birmingham, she aided him



in the business and editorial management, became chief editorial writer, and for some time, during his absence, was in full charge of the paper. In 1895 she was one of the founders of the "Free Lance," a literary and society weekly, official organ of the Woman's Federation of Literary Clubs of Alabama, and was its editor in chief till her marriage, in 1897, to John D. S. Davis, M. D. Her "Judith" was followed by "The Squire," and at the time of her death she had completed her third large work, "Told by a Woman." Mrs. Davis was also a founder of the Woman's Press Club of Alabama.

Davis, Varina Anne Jefferson, author, born in Richmond, Va., June 27, 1864; died at Narragansett Pier, R. I., Sept. 18, 1898. She was the second daughter of Jefferson Davis, and her childhood was mainly spent abroad. She had devoted herself to literature for several years, her latest work, "A Romance of Summer Seas," appearing but a short time before her death. Her other works are: "An Irish Knight of the Nineteenth Century"; a "Sketch of the Life of Robert Emmet" (New York, 1888); "The Veiled Doctor," a novel (1895); and "Foreign Education for American Girls."

Davis, William G. Mackey, lawyer, born in Portsmouth, Va., in 1813; died in Alexandria, Va., March 11, 1898. In early life he removed to Florida, where he was admitted to the bar and became active in politics. He was a member of the Secession Convention and worked and voted against the ordinance of withdrawal, but after the ordinance was adopted he raised a troop of cavalry, was attached to the army under Gen. E. Kirby Smith, and was promoted to brigadier general. After the war he settled in Washington, D. C., and resumed the practice of law. He was one of the counsel of the Federal Government in the great cotton case, involving several millions of dollars, brought by a British firm.

Delacy, William, soldier, born in England, Sept. 29, 1828; died in South Orange, N. J., Dec. 12, 1898. He came to New York in 1848. At the outbreak of the civil war he was commissioned a lieutenant in the 37th New York Infantry; he served two years with that regiment, and was mustered out with the rank of major. In 1868 he was commissioned colonel of the 164th New York Infantry. He was wounded at the battles of Williamsburg and Spottsylvania, and was brevetted brigadier general, March 18, 1865. After the war he went to Brooklyn, where he served for eight years as a member of the Board of Assessors. He was for a short time chief clerk in the naval station at Key West.

Demarest, David D., clergyman, born in Oradell, Bergen County, N. J., July 30, 1819; died in New Brunswick, N. J., June 21, 1898. He was graduated at Rutgers College in 1837, and at the New Brunswick Theological Seminary in 1840; entered the ministry of the Reformed Dutch Church, and held pastorates at Catskill, Flatbush, New Brunswick, and Hudson, N. Y., till 1865, when he became Professor of Pastoral Theology and Sacred Rhetoric in the New Brunswick Seminary. The connection was maintained till his death. He was a vice-president of the Huguenot Society of America, trustee of Rutgers College from 1858, secretary of the seminary faculty thirty-one years, stated clerk of the General Synod in 1862-'69, and an active member of the New Jersey Historical Society. He received the degree of D. D. from Princeton in 1857, and that of LL. D. from Rutgers in 1892. Dr. Demarest was author of the article on the "Reformed Protestant Dutch Church" in the "American Cyclopædia"; and of "History and Characteristics of the Reformed Protestant Dutch Church" (New York, 1856; 4th ed., 1889); "Practical Catechetics" (1882); "The Huguenots on the Hackensack" (1886); and many addresses and contributions to periodicals.

Demorest, Ellen Louise, benefactor, born in Saratoga, N. Y., in 1824; died in New York city, Aug. 10, 1898. She was the widow of William Jennings Demorest (see obituary in the "Annual Cyclopædia" for 1895), and her life work was closely identified with that of her husband. About fifteen years ago she retired from active connection with her husband's publications, to which she had been a regular contributor for many years, and afterward gave much of her time to charity and temperance work. She was president of the Woman's Christian Temperance Union of New York.

De Vivo, Diego, *impresario*, born in Sarno, Italy, in 1822; died in New York city, Aug. 11, 1898. He studied alternately for the priesthood and the profession of architecture, but, becoming dissatisfied with his prospects, he ran away and enlisted in the army. After aiding in the suppression of several revolutions, he retired from the army and was engaged in business till 1854, when his republican proclivities led to his arrest and deportation. He settled in New York, intending to support himself by teaching Italian, but becoming acquainted with Signors Brignoli and Albites, then singing in opera, he was induced by them to undertake the career of an operatic manager. His first engagement was with Mme. Gazzaniga, the wife of Sigor Albites, a famous prima donna, in 1860. Many of the operatic stars of the twenty-five years that followed were under his management. He was the first American manager of Parepa Rosa; brought Salvini to the United States; managed for Wachtel, Ristori, Carlotta Patti, Aimée, Ilma dei Murska, Emma Abbott, and Castelmarty, who died last year while on the stage singing; and he had charge of the principal English, Italian, and German opera companies in the United States during 1868-'69. He published his reminiscences in the New York "Sun."

Dodson, Caroline M., physician, born in Keosauqua, Iowa, Dec. 17, 1845; died in Philadelphia, Pa., Jan. 9, 1898. She was graduated at the Woman's Medical College of Pennsylvania in 1874, and was active in the practice of her profession till her death. In 1891 she was president of the Woman's National Health Association. She was a frequent speaker on educational matters and on woman's rights; the first president of the County Woman's Christian Temperance Union; organizer and president of the Northwest Philadelphia Woman's Christian Temperance Union; a former secretary of the White Ribbon Army; and one of the most active members of the Woman Suffrage Association.

Donaldson, Thomas Corwin, collector, born in Columbus, Ohio, Dec. 27, 1843; died in Philadelphia, Pa., Nov. 18, 1890. He was educated in the public schools of Columbus. At the outbreak of the civil war he enlisted in the 19th Ohio Infantry, and was honorably discharged in June, 1862, in consequence of a wound. In 1863 he went to Philadelphia, and in September, 1864, under the name of Lingard, enlisted in the 190th Pennsylvania Infantry, with which he served till the end of the war. For a time he was employed in the office of the Secretary of State of Ohio, and he subsequently practiced law. In 1869 he was appointed Register of Public Lands for Idaho. He held that post several years, and also served as clerk of the Supreme Court of the Territory. In 1875 he lived for a time in San Francisco, engaged in making a collection of American minerals for the Smithsonian Institution's exhibit at the Centennial. Later in the year he removed to Philadelphia as Centennial Commissioner, and made his permanent residence there. He served on many mint assay commissions, was offered the governorship of Idaho in 1890, and was a member of the Republican Na-

tional Committee in 1884. He was famous as a collector of antiquities, and his collections of works of art, books, relics, historical documents, etc., was not excelled by any private collection in the United States. He wrote and compiled for the Government a mammoth volume, "Public Domain," which is the standard reference history of the national public lands, and he also wrote "The George Catlin Indian Gallery in the United States National Museum" (1888) and "Walt Whitman, the Man" (1896).

Donnohue, Dillard C., lawyer, born in Montgomery County, Ky., Nov. 20, 1814; died in Greencastle, Ind., April 2, 1898. He removed to Indiana in early life, settled in Greencastle, was a member of the State Legislature from 1848 till 1852, and as a delegate to the National Republican Convention of 1860 had much to do with shaping the action of the Indiana delegation in favor of the nomination of Abraham Lincoln. Although beyond the average age, he served as a soldier during part of the civil war. In 1863 he was appointed by President Lincoln a special commissioner to the republic of Hayti for the purpose of inquiring into the practicability of colonizing all the slaves of the Southern States there after their freedom had been secured. This was a project highly favored at the time by both President Lincoln and Secretary Seward, but Mr. Donnohue was obliged to make an adverse report. For details of this mission the reader is referred to Nicolay and Hay's "History of the Administration of Abraham Lincoln." Mr. Donnohue was a law partner of John P. Usher and an early and active abolitionist.

Dorsey, Henry C. L., prisoner's friend, born in Kentucky, in 1823; died in Pawtucket, R. I., June 8, 1898. In early life he was once unjustly arrested and had much difficulty in procuring bail. This experience caused him to make a vow that he would aid any man in a similar situation, and till within a few years he was widely known as the man who would furnish bail for any one who could convince him that he was innocent of the crime charged, whether he knew the person or not. About twenty-five years ago he offered to give to several States a fund of \$1,500 with which to provide an annual turkey dinner for convicts. Connecticut was the only State that accepted his offer, and the Dorsey Thanksgiving dinner has been a feature of its prison ever since. It is believed that he was formerly a man of large means, for he spent freely and gave away considerable sums for many years. He died poor, and penologists say that his peculiar benefactions wrought more harm than good.

Dos Passos, Benjamin Franklin, lawyer, born in Philadelphia, March 28, 1856; died in New York city, June 17, 1898. He was admitted to the bar of New York in 1879, and in 1883 he formed a partnership with his brother, John R. Dos Passos. In 1888 he was appointed an assistant to the district attorney of New York County. While in that office he had charge of many important criminal cases, in the prosecution of which he showed marked ability. At the close of his term of office he resumed the partnership with his brother. He was appointed special counsel for the State of New York in important litigations arising under the tax laws, notably the one against the estate of Jay Gould. He published "The Law of Collateral and Direct Inheritance, Legacy and Succession Taxes" (1890).

Downs, Morse S., musician, born in Haverhill, Mass., in 1830; died in Brooklyn, N. Y., June 12, 1898. He developed a strong taste for music at an early age, and when nine years old was able to play the organ in a church, though he was so short that he had to stand before the instrument. Severe application to the study of music greatly injured his

health before he was twenty years old, and he spent some time in California. On his return he took a course in vocal instruction in Boston, and in 1860 became the tenor in the quartet of the OMI South Church. His health again failing, he removed to Memphis, Tenn., where he was appointed director of the Mozart Conservatory, and later gave the first musical festival ever held in the South, aided by Theodore Thomas and his orchestra, Nilsson, Materna, Scaria, and Winterman. About this time also he published songs and other musical works. During the past fifteen years he was prevented by illness from following a professional career.

Dreher, Virginia, actress, born Louisville, Ky., in 1858; died in Phoenix, Ariz., Nov. 11, 1898. She was the daughter of a family named Murphy, and married when quite young a music professor of Louisville named Dreher. On the death of her husband she sought a means of supporting herself and two children by going upon the stage. She studied under John Norton, an actor and manager of St. Louis, and made her *début* as Julia, in "The Hunchback," at the Grand Opera House in that city in 1888. Her success was such that she was immediately engaged by Augustin Daly for his theater in New York. She made her first appearance in New York in 1883 in "7-20-8." She became immediately a favorite with the public, and remained a member of Daly's Theatre until 1889, when she married George Frederick Postlethwaite, a wealthy English gentleman, and retired from the stage.

Duncan, Charles C., seaman, born in Bath, Me., in 1821; died in Northfield, Mass., March 25, 1898. He adopted a seafaring career in early life, and when twenty years old was given command of a ship. Subsequently he was engaged in business in New York city. In 1867 he embarked on a cruise to the Mediterranean, the idea of which he had conceived, commanding the steamer "Quaker City," which furnished the subject of Mark Twain's "Innocents Abroad." Mr. Clemens being a member of the excursion party. On returning from the voyage Capt. Duncan became actively identified with the American Seamen's Friend Society, and labored with much zeal to promote the shipping act that Congress passed in 1872. For many years he was a conspicuous church worker in Brooklyn, N. Y., being at times a deacon of Plymouth Church and superintendent of its Sunday school and superintendent of the Sunday school of the Rev. Dr. George F. Pentecost's church. After the passage of the shipping act he was appointed shipping commissioner of the port of New York, and he held the office till 1885, when he removed with his family to Northfield. In 1894 he was licensed to preach by the conference of Franklin County, Mass.

Duncan, Samuel White, clergyman and educator, born in Haverhill, Mass., Dec. 19, 1838; died in Boston, Oct. 30, 1898. He was graduated at Brown University in 1860. He raised a company in Haverhill for the 50th Massachusetts Volunteers in 1862, and served as its captain through a part of the civil war. He was graduated at the Theological Seminary in Rochester, N. Y., in 1866, and then held pastorates of Baptist churches, successively, in Cleveland, Cincinnati, and Rochester. In 1885 he was offered the presidency of Vassar College, but declined it. He became in 1892, and continued to his death, foreign secretary of the American Baptist Missionary Union. He was a trustee of Rochester University, Denison University, and Rochester Theological Seminary, and a fellow of Brown University. In 1878 the degree of D. D. was conferred upon him by the University of Chicago.

Durgin, Dorothy, Shaker, born in Sanbornton, N. H., Nov. 23, 1825; died in Canterbury, N. H.,

Aug. 25, 1898. She was left motherless at the age of seven years, and was placed in the keeping of a Shaker family at Canterbury, and remained a member of the household for sixty-five years. She was eldress, or first sister in authority, for forty-six years. She was an able writer, contributed many articles to Shaker and other magazines, and had visited every community of her sect in the United States, except one in Ohio.

Durrie, John, artist, born in Hartford, Conn., March 21, 1818; died in East Orange, N. J., Aug. 1, 1898. He studied painting with Nathaniel Jocelyn, of New Haven, where he resided nearly all his life. His specialty was portraiture and fruit pieces. Many of his small canvases, fruit and fish, are owned in Boston. A younger brother, George H. Durrie, who died many years ago in New Haven, was a painter of landscapes and snow scenes.

Duryea, Joseph Tuthill, clergyman, born in Jamaica, Long Island, N. Y., Dec. 9, 1832; died in Brooklyn, N. Y., May 17, 1898. He was of Huguenot and Dutch stock; was graduated at Princeton in 1856, and at its theological seminary in 1859; and was first called to the Second Presbyterian Church in Troy, N. Y., immediately after leaving the seminary. In 1862 he went to the Collegiate Reformed Dutch Church in New York city, and in 1867 to the newly established Classon Avenue Presbyterian Church in Brooklyn. He held the last pastorate for twelve years, and in that time his congregation erected a handsome new church edifice, and established a mission school on Atlantic Avenue which became the Duryea Presbyterian Church. From Brooklyn he went to the Central Congregational Church in Boston, where he remained ten years, and during the whole of this pastorate he also taught the senior class in philosophy in Wellesley College. In 1888 he accepted a call to the First Congregational Church in Omaha, Neb., where he became one of the foremost in missionary, charitable, and educational work. He had charge of the general work of relief in that city during the distressing winter of 1893. In 1895 he resigned, and accepted the pastorate of the First Reformed Church in Brooklyn, with which he remained until his death.

Eaton, William Wallace, statesman, born in Tolland, Conn., Oct. 11, 1816; died in Hartford, Conn., Sept. 19, 1898. He was educated in the public schools of Tolland. From 1837 to 1841 he was in business in Columbia, S. C. Returning to Tolland, he studied law and was admitted to the bar. He was elected to the State House of Representatives in 1847-'48, and to the State Senate in 1850. He then removed to Hartford, where he lived till his death. He was clerk of the Superior and Supreme Court, and city judge and recorder of Hartford. For several terms, between 1853 and 1875, he represented Hartford in the Legislature, and he was Speaker of the House in 1854 and 1873. He was known as a "Peace Democrat" during the civil war, and he advised resistance if the troops from Massachusetts attempted to pass through his State. He served one term, 1875 to 1881, in the Senate of the United States, and previous to that a few weeks as the successor of Senator Buckingham, who died while in office. For a part of his term he was chairman of the Committee on Foreign Relations. He framed a bill for the appointment of a tariff commission. The bill failed, but a similar measure was adopted by the next Congress. He opposed the appointment of the Electoral Commission to settle the controversy over the presidency in 1876-'77. In 1883-'85 he represented the 1st District of Connecticut in the United States House of Representatives, and while holding this office he maintained the right of the House, independently

of the Senate, to determine all questions relating to any presidential election.

Eddy, Willson, inventor, born in Chelsea, Vt., Feb. 24, 1813; died in Springfield, Mass., Sept. 2, 1898. At the age of nineteen he went to Lowell with the Locks and Canal Company, and in 1840 began to work for Major Whistler as a mechanic on the Boston and Albany Railroad. When Mr. Eddy began working on locomotives there were fewer than a dozen in the United States, and when his manager made a failure of several locomotives which had been built to overcome the steep grades between Springfield and Albany Mr. Eddy's opportunity came. He was promoted from foreman to master mechanic in 1850, and then began building his own locomotives. He went to Russia in 1856, but as the capitalists' plans failed he returned to New England. He retired from active work in 1880. Mr. Eddy never cared to secure patents on his many inventions, and took out only one, on a car brake. He kept pace with the development of locomotives, so that the last one of the 135 which he built was as complete and able to meet the demands of the period as the first. He served both as an alderman and councilman in Springfield, and in 1882 represented his district in the Legislature.

Elliot, Samuel, historian, born in Boston, Mass., Dec. 22, 1821; died in Beverly, Mass., Sept. 14, 1898. He was graduated at Harvard in 1839 and was long prominent in educational work. From 1856 to 1864 he was Professor of History and Political Science in Trinity College, Hartford, and he was president of that institution in 1860-'64; from 1872 to 1876 he was head master of the Girls' High School, Boston, Superintendent of the Boston Public Schools, 1878-'80, and after that date he served on the school committee. He was an accomplished historical scholar. His principal work, "The History of Liberty" (Boston, 1853), was a revision of two earlier works—"Passages from the History of Liberty" (Boston, 1847) and "The Liberty of Rome" (Boston, 1849). In its new form it was divided into two parts, the first entitled "The Ancient Romans," the second called "The Early Christians." His other writings include "The Life and Times of Savonarola" and "Manual of United States History, 1492-1850" (Boston, 1856).

Elmer, Horace, naval officer, born in Bridgeton, N. J., in 1847; died in Brooklyn, N. Y., April 27, 1898. He was appointed an acting midshipman in the United States navy, Sept. 27, 1861; and was promoted midshipman, July 16, 1862; ensign, Nov. 1, 1866; master, Dec. 1, 1866; lieutenant, March 12, 1868; lieutenant commander, April 27, 1869; and commander, March 2, 1885. He was on sea duty thirteen years and eleven months, and on shore or other duty eighteen years and one month, at various times he served on the "Hartford," flagship of the East India squadron; the ironclad "Terror," on the North Atlantic station; the "Colorado" during the excitement over the "Virginian" capture in 1873; the "Kearsarge"; and the practice ship "Jamestown." On Oct. 26, 1896, he was appointed commandant of the naval station at New London, Conn., and during the winter of 1897-'98 he was on duty at Cramp's shipyard in Philadelphia, superintending the construction of vessels for the navy. In March, 1898, when war with Spain seemed inevitable, he was detailed to take charge of the organization of a special naval force for patrol duty along the coasts. This force was afterward known as the "mosquito fleet." It was the intention of the Navy Department to give him command of the fleet when organized, but he died from overwork before his task was completed.

Elmore, Alfred Frank, vocalist, born in Canterbury, England, May 23, 1839; died in New York

city, June 14, 1898. He was educated in London under Randegger and Balfe, and began his professional career when about twenty-one years old. He achieved a wide reputation as a baritone concert singer; was a member of the choir of the Temple Church in London; and was the first vocalist to take the baritone part in Sir Arthur Sullivan's oratorio "The Prodigal Son," at the Crystal Palace, London. In company with Mme. Patey, Mme. Edith Wynne, and the baritones Santley and Maas, he made several singing tours of Great Britain. In 1884 he came to the United States. For a year he was Professor of Singing in the University of South Carolina. Afterward he was choirmaster of the Protestant Episcopal Church of the Ascension in Baltimore, and Professor in the New York Conservatory of Music. For some time he had charge of the musical work of the New York City Missionary Society. His widow was Maria Strindberg, a popular Swedish pianist.

Emerson, George H., clergyman, born in Roxbury Highlands, Mass., in 1823; died in Salem, Mass., March 24, 1898. He received a common-school education, and, after spending some time in a store, was taken under the tutelage of the late Rev. Abel C. Thomas, of Lowell, who prepared him for the ministry. For several years preceptor and student traveled together through Kentucky and Ohio, organizing religious societies and building churches. In 1856 Mr. Emerson returned to the East and organized the First Universalist Society in Somerville, Mass. Afterward he held pastorates in Needham and in Huntington, Long Island, N. Y. While stationed in Huntington he was called to the editor's chair of the "Embassador," a religious periodical subsequently known as the "Christian Leader," with which he had a continuous service of more than thirty-five years. He was the oldest editor of a religious periodical in Boston. He was a frequent contributor to magazines, and had published several books, including "Probation," "The Life of Barnum," and "The Life of Dr. Miner."

Emerson, Jesse Milton, author, born in Methuen, Mass., in 1818; died in Plainfield, N. J., Dec. 20, 1898. Early in life he was in business in New Orleans, but he afterward removed to New York city, where he resided until 1894. He conducted a publishing business, and was the author of these works: "New York to the Orient," "Stimulants," and "European Glimpses and Glances."

English, Mrs. Jane (Western), actress, born in Philadelphia, Pa., in 1825; died there, Oct. 24, 1898. She was known in her early career as Mrs. Jane Western, having married a comedian who was commonly known as "the Great Western." Lucille and Helen Western, the well-known actresses, were the children of this marriage. Mrs. Western made her first appearance on the stage at the Adelphi Theater, Boston, in 1846. She became a member of the stock company of the National Theater in Boston, and was very popular in soubrette rôles. On the death of her first husband, in 1858, she married William English, a manager. She occupied places in different stock companies in New York, Philadelphia, and Baltimore, and was very highly esteemed as a vivacious and attractive comedienne. In 1890 she retired from the stage and entered the Edwin Forrest Home, Philadelphia.

Eno, Amos Richards, capitalist, born in Simsbury, Conn., Nov. 1, 1810; died in New York city, Feb. 21, 1898. He received a common-school education in his native town, and was sent to Hartford to learn the dry-goods business. While there he had for fellow-clerks the late Gov. Edwin D. Morgan, of New York, and Junius S. Morgan, the banker of New York and London. He established himself in the wholesale dry-goods business in New

York city in 1833, and continued active in it till 1857, when he turned his attention wholly to real-estate operations. Three years before making this change he bought the land at Fifth Avenue and Twenty-third Street, on which Franconi's Hippodrome had stood, and began building the Fifth Avenue Hotel. At that time this site was so far uptown that the venture was derisively spoken of as "Eno's Folly," and it was with difficulty that Mr. Eno secured a manager for the hotel in the person of the late Paron Stevens, then a successful hotel manager in Boston. The new hotel was opened in 1859. Mr. Eno retained the ownership of this property till his death. He was remarkably successful in all his real-estate operations, was conceded to be one of the first experts in New York realty valuations, and was a man of the strictest integrity. He was one of the founders and principal stockholders of the Second National Bank, of which one of his sons was made president in 1881. In 1884 financial circles in New York were startled by the announcement that the bank had been ruined by the private speculations of its president. Mr. Eno declared at once that the bank would not be allowed to fail, and that every obligation would be paid in full. It was reported at the time that the saving of the bank cost him between \$3,000,000 and \$4,000,000. (See GIFTS AND BEQUESTS.)

Evans, Joseph, painter, born in New York city, Oct. 29, 1857; died there, April 23, 1898. He received his art education in the schools of the National Academy of Design and the Art Students' League in New York and at the École des Beaux Arts in Paris, and while in Paris worked in the studio of Gérôme. On his return to New York he applied himself to landscape work and was a frequent exhibitor, especially at the annual exhibitions of the Society of American Artists. He was for three years president of the Art Students' League, and for the same time secretary of the Society of American artists. He was deeply interested in public education, and had served one term and part of another as a school inspector.

Fairbank, Calvin, clergyman, born in Pike, N. Y., Nov. 3, 1816; died in Angelica, N. Y., Oct. 12, 1898. When twelve years old he attended a Methodist quarterly meeting and listened to a recital of the hardships of an escaped slave and his family. This made such a deep impression on the boy that it shaped the whole course of his life. His work of rescuing slaves began in 1837, while he was rafting lumber down the Ohio river; and within two years thereafter he had freed 23 slaves. His method was to ferry them across the river on rafts or logs, or in rowboats, and deliver them to trusted friends in Ohio or Indiana. According to his own statement he freed 47 slaves by his personal exertions, and he was instrumental in freeing many more. He entered the seminary at Lima, N. Y., in 1839, and soon afterward became a student at Oberlin College, from which institution he was graduated in 1844. During his college days he made the acquaintance of Gerrit Smith, Joshua R. Giddings, Theodore Parker, and other leaders of the abolitionists; adopted their ideas as to the unconstitutionality of slavery, and worked harmoniously with them in many ways. While a



student at Oberlin he taught school in Lexington, Ky., where he became the fast friend and defender from physical injury of Cassius M. Clay, who was publishing "The True American," the only anti-slavery paper in the South. He also continued his work of freeing slaves. The most remarkable incident of this work occurred in 1843. Mr. Fairbank had discovered in the jail at Lexington a slave girl almost purely white who was soon to be sold at auction. Proceeding to Cincinnati, he enlisted the sympathy of Salmon P. Chase, Nicholas Longworth, and others, so that he returned to Lexington with \$2,275 in his pocket and authority to draw upon the donors for \$25,000 more. The bidding was spirited, Fairbank's only opponent being a Frenchman from New Orleans. At last the girl went to Fairbank for \$1,485, and he took her to Cincinnati, where she was freed and educated. In 1844, in company with Miss D. A. Webster, he effected the escape of Lewis Hayden and family. For this offense Miss Webster was sentenced to two years in the prison at Frankfort, Ky., and Fairbank to fifteen years. During his imprisonment pending the trial he made a vain attempt to escape from the jail. In 1849 he was pardoned by Gov. Crittenden. His efforts were at once directed against the passage of the fugitive slave law; and, failing in that, against its execution. In 1852 he was once more sentenced to a fifteen-year imprisonment at Frankfort, where, according to his story, he received more than 35,000 lashes on his bared body, his weight being reduced from 180 pounds to 118. This treatment caused him to have the appearance of an old man at the age of forty. Having been ordained to the ministry in 1850, he officiated at times in the chapel of the prison, where he did not hesitate to set forth his own views on the absorbing question of the day. For a part of the year 1862 the Confederate army had possession of Frankfort, and several attempts were made by the soldiers upon the life of Mr. Fairbank. In 1864, during the temporary absence of Gov. Bramlette, he was released from prison by the acting Governor, Richard T. Jacobs. His total period of confinement exceeded seventeen years. On June 9, 1864, he married, in Oxford, Ohio, Miss Mandana Tileston, of Williamsburgh, Mass., to whom he had been engaged since 1851. He removed to New York city in 1864, where he was for more than ten years in the employ of religious and missionary societies, his special work being in connection with the freedmen. After this work he removed to Angelica, N. Y., where the remainder of his life was spent. In 1893 he published a book entitled "How the Way was Prepared," giving a detailed account of his eventful life.

Fassett, Cornelia Adèle (Srong), painter, born in Owasco, N. Y., Nov. 9, 1831; died in Washington, D. C., Jan. 4, 1898. She studied painting in water color in New York city and in oil in Paris and Rome; and on her return to the United States in 1855 opened a studio for portrait painting in Chicago. In 1873 she was elected a member of the Chicago Academy of Design, and in 1875 became a resident of Washington, D. C. Her most notable painting is "The Electoral Commission in Open Session," which was executed in 1877-'80 and contains about 200 portraits. It was bought by the National Government and now hangs in the Capitol. Mrs. Fassett had also painted portraits of many notable persons, including Vice-President Wilson, Chief-Justice Waite, President Garfield, Associate Justices Miller and Field, Gen. John A. Logan, and Miss Clara Barton.

Fay, Theodore Sedgwick, author and diplomat, born in New York city, Feb. 10, 1807; died in Berlin, Germany, Nov. 17, 1898. He belonged to that generation of literary New Yorkers which in-

cluded Halleck, Willis, Morris, and Bryant, and in early life was editor of the New York "Mirror." He was secretary of the American legation at Berlin in 1837-'58, and minister resident to Switzerland in 1858-'61. Since 1861 he had lived in retirement at Berlin. His novels enjoyed a considerable measure of public favor at the time of their appearance, but with the exception of "Norman Leslie" are unknown even by name at the end of the century. His earliest work was entitled "Dreams and Reveries of a Quiet Man" (1832); and this was followed by "Norman Leslie" (1835); "Sydney Clifton" (1839); "The Countess Ida" (1840); "Hoboken: A Romance of New York" (1843); "Robert Rueful" (1844); "Ulric; or, The Voices" (1851); "Views of Christianity" (1856); "History of Switzerland" (1860); "Great Outlines of Geography" (1867); "The Three Germanys: Glimpses into their History" (1869).

Febiger, John Carson, naval officer, born in Pittsburg, Pa., Feb. 14, 1821; died in London-derry, Md., Oct. 9, 1898. He was appointed a midshipman in the navy, Sept. 4, 1838; promoted passed midshipman, May 20, 1844; master, July 13, 1852; lieutenant, April 30, 1853; commander, July 16, 1862; captain, May 6, 1868; commodore, Aug. 9, 1874; and rear admiral, Feb. 4, 1882; and was retired, July 1, 1882. He was on the "Germantown," of the East India squadron, in 1858-'60, on the sloop "Savannah" in 1861, and when commissioned commander was assigned to the steamer "Kanawha," of the Western Gulf blockading squadron. After commanding various vessels in that and the Mississippi squadron, he commanded the "Mattabeset," of the North Atlantic squadron in 1864, and in that steamer took part, May 5, 1864, in the engagement between the little fleet of wooden vessels under Capt. Melancthon Smith and the Confederate ram "Albatross," in Albemarle Sound, North Carolina. In this fight the ram was defeated and her tender was captured; and Febiger was commended for his gallantry and skill. He commanded the "Ashuelot," of the Asiatic squadron, in 1866-'68; was inspector of naval reserve lands in 1869-'72; a member of the board of examiners in 1874-'76; and commandant of the Washington Navy Yard in 1876-'80.

Fisher, Clara (Mrs. Clara Fisher Maeder), actress, born in London, England, July 14, 1811; died in Metuchen, N. J., Nov. 12, 1898. She made her first appearance on the stage at the Theater Royal, Drury Lane, London, England, Dec. 10, 1817, as Lord Flimnap in an adaptation called "Gulliver in Lilliput," which was specially provided for her by her father, George Frederick Fisher, who was connected with the theater as a scenic artist. The astonishing *aplomb* and accuracy of the child in the performance of the rather indifferent part with which she was intrusted took the city by storm. The novelty of seeing a mere child upon the stage, imitating with perfect confidence the manners of her elders, drew to Drury Lane not only the idlers of the clubs and coffee houses, but the gay ones of the court, and Clara Fisher was applauded and petted by George IV and his friends. She was even patronized by Beau Brummell. Her father wrote for her a burlesque on the last act of "Richard III," which upon its presentation with Clara Fisher as the Crookback made an immediate success and enjoyed a run of seventeen nights, a wonderful thing in those days for Drury Lane. She was then engaged by the managers of Covent Garden Theater. Not only were her houses crowded with the wit and fashion of the town, but her childish methods were adopted into the speech of polite society, and the "Fisher lisp" was the best vogue among the young exquisites of both sexes. She made tours of the United Kingdom, always under the direction of her

father and mother, playing with other parts Norval and Sir Peter Teazle for five years with great financial success. In 1822 she returned to Drury Lane in the part of Little Pickle in "The Spoiled Child," and remained at that theater as a regular member of the company for three years. In 1827 she came to the United States, landing Sept. 1 of that year at the Battery, New York, from a sailing vessel, when that locality was the fashionable quarter of the city. A house in the Bowery near Grand Street had been taken for her, and there she lived with her father and mother while she played her first engagement in New York at the Old Park Theater, which stood on the ground now occupied by the "Daily News" office, opposite the Post Office. Her first appearance was made Sept. 11, 1827, as Albina Mandeville in the comedy of "The Will." Her success here was a repetition of the astonishing *furor* which had attended her London appearances. Though she was now sixteen years of age, she was small and appeared younger, and was therefore still considered an infant prodigy. From New York she journeyed to Philadelphia, Boston, and the cities of the South and West. In addition to the characters already mentioned she played Clari in "The Maid of Milan," Maria in "The Actress of all Work," Gertrude in "The Loan of a Lover," Cherubino in "The Marriage of Figaro," Priscilla Tomboy in "The Rump," Letitia Hardy in "The Belle's Stratagem," the Four Mowbrays in "Old and Young," and Juliana in "The Honeymoon." In Baltimore in 1828 President Adams attended her performances and at a Twelfth Night where she was present in one of the first houses of the city she was chosen as the Queen of the Revels and had Louis Napoleon, afterward the Emperor Napoleon III, for her partner. By this time she had begun to be an earnest and studious woman, and when in 1834 she married James Gaspard Maeder, a well-known and favorite musician, she was determined, although in the possession of an independent fortune, to devote herself to the best work of the drama. She was successively attached to most of the best companies of the United States. Charlotte Cushman, Forrest, the elder Wallack, the elder Booth, Edmond Connor, Hamblin, Charles Kean, and James H. Hackett are a few of the names of those whom she ably supported in the principal female rôles of their repertoires. One of her interesting recollections of youth in America is the fact of her having played with Thomas Apthorpe Cooper and George Frederick Cooke. She played Susanna in "The Marriage," with Charlotte Cushman as the Countess; Violante to the Don Felix of the elder Wallack, in "The Wonder"; Phoebe to Master Burke's Paul Pry; Mrs. Page and Mrs. Ford (at different times) to Hackett's Falstaff, as well as Ophelia to his Hamlet. On the stage of the Old Park Theater she was the original of more than half a hundred characters new to the American stage, among which were Clara Douglas in "Money," Caroline in "The Four Sisters," Duchess de Torrenneva in "Faint Heart ne'er Won Fair Lady," Madame Germaine in "Home, Sweet Home," Victoria in "The Invincibles," Rosetta in "The Alpine Maid," and Nell Gwynne in the drama of that name. She was also intrusted with the interpretation of the parts originally presented by Madame Vestris in London. Mrs. Maeder and her husband purchased and occupied a handsome home in Albany, N. Y., where they lived for many years while she was filling engagements throughout the country, and where they were surrounded by a large family of children. Financial reverses, from the failure of a New York bank, in which most of her money was invested, embittered Clara Fisher's later life with the cares of poverty. Yet such was the gentleness of her

nature that she never lost the peculiar charm of sunny good nature and the sparkling vivacity which constituted the magnetic power of her work on the stage. Mrs. Maeder continued to act and was employed in many different companies until 1889, when she definitely retired after seventy-two years of active work, during which she had been a leading figure of the English drama in two continents. She made her last public appearance on the stage at Baltimore, Md., in the character of Mrs. Jeremiah Joblots in "The Lottery of Love," under the management of Augustin Daly, of whose company she had been for three years a member. The Dunlap Society of New York in 1897 published Mrs. Maeder's autobiography.

Flad, Henry, civil engineer, born near Heidelberg, Germany, in 1824; died in Pittsburg, Pa., June 20, 1898. He entered the service of the German Government when twenty-two years old, and was detailed to duty in connection with the work of improving the Rhine. Three years later he joined the revolutionists with the rank of captain of engineers, and constructed defensive works. On the suppression of the uprising he fled to the United States with a sentence to death against him, and on landing in New York supported himself for a year as draughtsman in an architect's office. In 1850 he was appointed assistant engineer of the New York and Lake Erie Railroad; in the following year made the survey between Buffalo and Niagara Falls; and in 1852 became resident engineer of the Ohio and Mississippi Railroad, with 35 miles of road to construct and supervise. He settled in St. Louis in 1861; enlisted as a private in the 3d Missouri Reserves; was promoted to captain of engineers when Gen. Frémont took command; and was detailed to special duty at Cape Girardeau. Subsequently Gen. Halleck transferred him to "Bissell's Engineer Regiment of the West," with which he served through the war and became its colonel. After the fall of Atlanta, Col. Flad resigned from the army, returned to St. Louis, and was employed as chief assistant to J. B. Woodward, who planned the waterworks. In 1867 he was appointed a water commissioner of St. Louis, and while holding this office was also chief assistant of James B. Eads in the construction of the great St. Louis bridge. He was president of the St. Louis Board of Public Improvements for nine years, and at the time of his death was a member of the Mississippi River Commission.

Flagg, William Joseph, viticulturist, born in New Haven, Conn., April 15, 1818; died in New York city, April 15, 1898. He was a son of Henry Collins Flagg, well known in his day throughout the South, and was educated and admitted to the bar in his native city. In the midst of a successful practice he removed to Cincinnati, Ohio, and married a daughter of Nicholas Longworth, and identified himself with the culture of the grape. He made a careful study of the conditions of the industry in the United States, and then spent some time in France, acquainting himself with systems there, and especially investigating the ravages of phylloxera. On his return he published a book on his observations, which became an authority. Mr. Flagg acquired large tracts of vine land along the Ohio river, and valuable real-estate properties in New York city and elsewhere. During the latter part of his life he resided in New York city and engaged in literary work. He was an accomplished scholar, an authority on financial questions, and a writer of fiction and on scientific subjects. On the day of his death the first edition of a work on the religions of all countries, on which he had been engaged for fifteen years, was published in New York under the title of "Youga."

Fowler, Mary Odenheimer, painter, born in Philadelphia, Pa., about 1845; died in Nutley, N. J., July 3, 1898. She was a daughter of the late Bishop William Henry Odenheimer, of the Protestant Episcopal diocese of New Jersey, and received her art education in the Philadelphia Art School and in Paris under Carolus Duran. She made a specialty of portrait and figure work, was a strong colorist, and executed a number of ideal paintings of high merit, including "Guinevere," "Vivien," "Elaine," and "Enid." The first of these was exhibited at the Centennial Exposition in 1876, and was the first painting sold, bringing \$1,000. At the World's Columbian Exposition she exhibited a study entitled "Marie," and received a diploma for her decorative studies. Many of her ideal heads were reproduced in engravings, etchings, photographs, and lithographs. Mrs. Fowler contributed to the exhibitions of the National Academy of Design, the Water-Color Society, and the Society of American Artists. She was an accomplished linguist, a contributor to art periodicals, and a writer of short stories. She was the wife of Frank Fowler, the portrait painter.

Franklin, Benjamin J., lawyer, born in Mason County, Ky.; died in Phoenix, Arizona, May 20, 1898. He was educated at Bethany College, West Virginia; studied law, and was admitted to the bar in Kansas in 1857; removed to Kansas City, Mo., in 1860; and served in the Confederate army through the civil war. In 1871 he was elected commonwealth attorney for the 24th Judicial Circuit of Missouri, and in 1874 was chosen Representative in Congress from the 8th Missouri District as a Democrat. During President Cleveland's first term Mr. Franklin was United States consul at Hankow, China. On his return he settled in Arizona, and in March, 1896, was appointed Governor of the Territory. After serving the unexpired term, he resumed the practice of law in Phenix.

Fraser, John Arthur, painter, born in London, England, in 1839; died in New York city, Jan. 1, 1898. He was carefully educated for an art career, studying in the Marlboro House School of Design, in the famous Lee Life School, and with F. W. Topham, the distinguished water colorist. Soon after reaching his majority he went to Toronto, Canada, to take possession of an inheritance, and there he lived several years. In 1878 he was one of a small group of painters selected by royal command to found the Royal Canadian Academy of Fine Arts. He also became a founder of the Ontario Society of Artists. During a part of his residence in Toronto he was director of the Government Art Schools in that city. He was employed for many years by the Canadian Pacific Railway Company to paint the scenery of the Northwest. On removing from Toronto he first went to Boston, and a few years afterward returned to London, whence the climate caused him to remove to New York city. Here he became an active member of the American Water-Color Society, the Salmagundi, and other art societies. His painting "The Heart of Scotland" was given the post of honor in the Paris Salon of 1890, and he was awarded a gold medal for his contribution of seven canvases to the World's Columbian Exposition in 1893. Besides "The Heart of Scotland," his best-known paintings are "Inghan More House" and "The Haunt of the Muskrat." He was a brother of W. Lewis Fraser, art manager of "The Century Magazine."

Frederic, Harold, novelist and journalist, born near Utica, N. Y., Aug. 19, 1856; died in Henley, Oxfordshire, England, Oct. 19, 1898. Owing to the death of his father he was early thrown upon his own resources, and after spending a year in a confectioner's establishment and several years as a

retoucher of negatives for photographers he became a proof reader in a newspaper office in Utica, at the age of twenty. In 1880 he was an editor of the Utica "Observer," and two years afterward was editor of the Albany "Evening Journal," which became Democratic under his management. In 1884 he was engaged by the New York "Times" to act as the London correspondent of that journal and for the remainder of his life he resided in London. He was an ardent literary worker, and was popular in his profession. His first novel, "Seth's Brother's Wife," appeared in 1887, and, like the greater number of his fictions, was a story of life in central New York. In the opinion of most critics his strongest work is "The Damnation of Theron Ware," which attracted much attention at the time of its appearance in 1896. His other stories include "The Lawton Girl" (1890); "In the Valley" (1890); "The Return of the O'Mahoney" (1892); "The Copperhead" (1893); "Marsena, and Other Stories of the War Time" (1894); "March Hares" (1896); "Gloria Mundi" (1898); "The Deserter, and Other Stories" (1898); "The Market Place" (1899). Other works by him are "The Young Emperor: William II of Germany" (1891); "The New Exodus: A Study of Israel in Russia" (1892).

French, Samuel, publisher, born in Gardiner, Me., in 1818; died in London, England, April 10, 1898. He removed to New York city in 1835 and established his business of publishing plays, which he brought out in small paper-covered volumes that were sold at low prices. His business met with quick success, and gave him such an extended reputation that he soon added to it an American agency for foreign playwrights. Most of the European plays which previous to the last fifteen years made notable successes were brought here by Mr. French, including "A Celebrated Case," and the three plays written by Sardou for Mr. French—"Feodora," "Theodora," and "Odette." He was interested in many theatrical enterprises in the United States, and at one time was manager for John McCullough. After 1872 he resided in London, where he had acquired the dramatic publishing business of Thomas H. Lacy.

Frink, Henry Allyn, educator, born in Amherst, Mass., May 23, 1844; died there March 25, 1898. He was graduated at Hamilton College in 1870, and, after teaching two years in the Brooklyn Polytechnic Institute, was called to the chair of English Literature and Oratory in Hamilton College. This chair he retained till 1885, when he became Professor of Logic, Rhetoric, and Public Speaking in Amherst College, where he remained until his death. In 1877 he was licensed to preach by the Presbytery of Utica, N. Y., and after this as long as he remained at Hamilton he supplied pulpits in the cities and large towns of central New York and elsewhere. In 1876 and 1877 representatives of Hamilton College who had been instructed by him won the intercollegiate honors in oratory in the contests at the Academy of Music, New York. Prof. Frink made extended tours of Europe in 1885, 1890, and 1895. He adapted Austin Phelps's "English Style in Public Discourse" for a text-book for schools and colleges under the title "Rhetoric: Its Theory and Practice," with an original second part on "Practical Exercises in the Fundamental Qualities of English Style" (New York, 1895). His "New Century Speaker" was published a month after his death, and he left other works unfinished.

Gage, Matilda Joslyn, reformer, born in Cicero, N. Y., March 24, 1826; died in Chicago, Ill., March 18, 1898. She was a daughter of Dr. H. Joslyn, an abolitionist, from whom she inherited an interest in reformatory problems. She received a liberal education, married Henry H. Gage, of Cicero, in 1845.

and began writing and speaking on reform measures in 1852. Her earliest concern was for the abolition of slavery; but she soon became acquainted with Elizabeth Cady Stanton, and through her influence began lecturing in advocacy of woman suffrage. In 1872 she was elected president of the National Woman Suffrage Association and of the New York State Woman's Suffrage Society, and in 1878 she organized the Woman's National Liberal League, of which she was president till her death. She edited the "National Citizen," of Syracuse, N. Y., from 1878 till 1881, and was author of "Woman as an Inventor" (New York, 1870); "The History of Woman Suffrage," with Susan B. Anthony and Elizabeth Cady Stanton (3 vols., 1881-'86); and "Woman, Church, and State" (1896). While on her sick bed she prepared a speech that was read at the annual convention of the National Woman Suffrage Association in Washington, D. C.

Garcia, Calixto, insurgent, born in Holguin, Cuba, Oct. 14, 1836; died in Washington, D. C., Dec. 11, 1898. He studied law, and began practice, but later he cast his lot with the struggling patriots in Cuba, and in 1868, with Carlos Manuel Cespedes and Marmol, he planned the revolution that became known as the "Ten Years' War." On Oct. 10, 1868, Garcia and Marmol took up arms at the head of 150 men; for a time they had great success, town after town falling before them. They captured Santa Rita, Baire, and Jiguani; for courage and ability at the latter place Garcia was appointed a brigadier general under Gomez. The Provisional Government later removed Gomez, and Garcia was made commander in chief of the forces of Cuba. He attacked Jiguani, which had been retaken by the Spanish, captured it, and then took Holguin. He was also victorious at Baquano, Cupeijal, Zarsal, and Santa Maria. Sept. 3, 1873, a decided reverse came. With 20 men at San Antonio del Bahar he was attacked by 500 Spaniards. When called on to surrender he decided to die by his own hand, and, placing his pistol in his mouth, fired upward. The bullet came out at his forehead, and he carried the scar the rest of his life. He was taken to Manzanillo, recovered, and was deported to Spain. After the peace of Zanjon, in 1878, he was freed by Premier Canovas at the request of Gen. Campos. He returned to Cuba and, not considering the Zanjon peace honorable or binding, took part in the "little war," in which he fought side by side with Maceo. He was compelled to surrender at Bayamo, and was sent to Madrid, where he lived seventeen years under police surveillance. In September, 1895, he crossed the frontier into France, came to New York, and arranged a filibustering expedition on the "Hawkins," Jan. 26, 1896, which was unsuccessful. Then he fitted out the "Bermuda," but was arrested by the United States Government. He forfeited his bail, and, the "Bermuda" having sailed March 15, he met her off Cape Henlopen, and landed in Cuba with 62 Cubans, 6 field guns, and a quantity of dynamite. On Oct. 27, he captured Guimaro; Jan. 13, 1897, he won a brilliant victory at Gabuquito; and Sept. 5, 1897, he captured Victoria de las Yunas. The loss of this place led to the recall of Gen. Weyler. Garcia held the interior of Santiago de Cuba province till the beginning of the Spanish-American War, when he offered to co-operate with the forces of the United States. Incensed because Gen. Shafter would not turn over to him the command of Santiago after its capture, he withdrew from the Cuban army July 17, 1898, but returned Sept. 23. In November he was sent to the United States at the head of the commission to present the views of the Cuban leaders to President McKinley, but he died before accomplishing his purpose. High official

and military honors were paid to his remains in Washington.

Gibbs, John Blair, physician, born in Richmond, Va., about 1858; killed at Guantanamo, Cuba, June 12, 1898. He was a son of the late Major Alfred Gibbs, of the 7th United States Cavalry, and was graduated at Rutgers College in 1878, at the University of Pennsylvania in 1881, and at the New York College of Physicians and Surgeons in 1882. After spending nearly two years at Bellevue Hospital, New York city, he took a course of post-graduate study in London and Vienna. On his return he established himself in practice in New York, becoming an instructor in the Post-Graduate Hospital and a member of the staff of Roosevelt and Lebanon Hospitals. When news of the great American naval victory at Manila reached New York, Dr. Gibbs determined to give up his lucrative practice and enter the navy for the war. He was commissioned an assistant surgeon and assigned to the monitor "Miantonomoh," but was soon transferred to the converted cruiser "Panther," which landed 600 marines from the American blockading squadron at Guantanamo. The second night after the landing the Spaniards made a midnight attack on the small American camp, and before they were dispersed Dr. Gibbs, a sergeant, and two privates were killed. Dr. Gibbs was the first physician accepted as a surgeon under the President's first call for volunteers, and the first American officer killed on Cuban soil.

Gilbert, Jasper Willett, jurist, born in Rome, N. Y., Jan. 15, 1812; died in Brooklyn, N. Y., Feb. 10, 1898. He received a public-school education, was admitted to the bar in 1835, settled in Rochester, N. Y. to practice, and in 1839 he became city attorney. From 1840 till 1845 he was district attorney of Monroe County. In 1847 he established an office in New York city and a residence in Brooklyn. He was elected judge of the Supreme Court of New York for the 2d Judicial District, on a unanimous nomination by both political parties, in 1865, and by re-elections held the office till he reached the age for retirement—Jan. 1, 1883. The most conspicuous case before him while on the bench was that of 17 aldermen of Brooklyn, who violated an injunction order issued by him. He adjudged them all guilty of contempt of court and sent them to jail. For ten years after his retirement from the bench he was engaged in private practice. Judge Gilbert was a State Charities Commissioner, an original member of the Standing Committee of the Protestant Episcopal Diocese of Long Island, and vice-chancellor of the Cathedral at Garden City.

Giles, William T., journalist, born in New Lisbon, Ohio, in 1824; died in Chicago, Ill., Feb. 3, 1898. He was apprenticed to the printer's trade in the office of the "Ohio Patriot," of New Lisbon, and after his promotion to the case entered the office of the "Crawford County Democrat," at Bucyrus. Here, the owner of the paper, becoming unable to pay his wages, suggested that he take the material of the office to Upper Sandusky, and there establish a Democratic paper. He reluctantly undertook the task, and was editor, compositor, and pressman all in one. He made a success of the paper and became influential in local and county politics. In 1849 he sold the paper and joined a party bound overland for the California gold mines. After spending a year and a half in mining and trading, he went to Marysville, and established the "California Express." A year later he founded the "Mountain Echo," at Downieville, Cal., and in 1853 returned to Ohio and established the "Wyandotte County Democrat." In 1856 he purchased the "Bulletin," of Freeport, Ill., which he conducted

several years. His restless disposition sent him gold hunting again in 1864, and he spent two years in Montana. Afterward he established "The Bugle," and a German paper at Council Bluffs, Iowa; the "Dakota Herald," at Yankton; the "Lee County Democrat," at Dixon, Ill.; the "Illinois Monitor," at Freeport; "The Democrat," at Freeport; and lastly, the "Daily Gazette," at Monroe, Wis. He retained active connection with his last paper till about a year before his death. Mr. Giles established more newspapers than any other man in the country.

Goodell, Abner Cheney, inventor, born in North Orange, Mass., Feb. 9, 1805, died in Salem, Mass., March 27, 1898. He perfected the first printing press that printed on both sides of a sheet in one operation. His inventions in this line became the foundation of the present Hoe press. He also invented the cracker machine now in use, and perfected the preparation of copper and steel plates for use by engravers. In 1825 he went to Boston, and afterward carried on the steel-plate business in Ipswich for three years, worked in Byfield on the first locomotive for the Boston and Lowell Railroad, and in Salem on the first electric motor ever built, which was run between Washington and Baltimore. About 1840 he engaged in making kegs by wholesale, having invented machinery which would produce ten times the former output. In succeeding years he made many inventions in machinery.

Gray, Mercy Maria, benefactor, born in Mansfield, Mass., Dec. 26, 1818; died in Oakland, Cal., May 20, 1898. Early in life she married J. A. Fay, an inventor of note, and about 1878 married the late Rev. Edgar H. Gray, of Washington, D. C. From her first husband she received a large fortune, out of which she did much while in Washington to promote the welfare of newsboys and fallen women. Two years after her second marriage she went to San Francisco, Cal., with her husband, who had received a call to the First Baptist Church of that city, and in 1888 to Oakland, where he was pastor of the First Baptist Church till his death, in 1894. Mrs. Gray gave to charity more than \$1,000,000. Among her most noteworthy gifts were \$30,000 each to the Pacific Baptist Theological Seminary, in Oakland, the Baptist Home Mission Society, and the American Baptist Publication Society, about \$100,000 to foreign missions, and \$25,000 to California College, Oakland.

Green, Manley C., jurist, born in Sardinia, N. Y., Oct. 5, 1843; died in Buffalo, Oct. 10, 1898. He was educated at Williams College. After studying law he opened an office, later formed a partnership with Goodwin Brown, and in 1886 with William L. Marcy. He was defeated for the Republican nomination for district attorney; elected justice of the Supreme Court in 1891; and in 1894, when the Appellate Division was organized under the new State Constitution, he was assigned to it, and he held the seat till his death.

Gregory, John Milton, clergyman and educator, born in Sand Lake, N. Y., July 16, 1822; died in Washington, D. C., Oct. 20, 1898. He was graduated at Union College in 1846, after which he studied law, but finally was ordained as a clergyman in the Baptist Church. After a short pastorate in the State of New York he began his life work as a teacher in Akron, Ohio, in 1852. Soon afterward he became the head of a classical school in Detroit, Mich., and from 1858 till 1863 he was Superintendent of Public Instruction of the State of Michigan. He was a particular friend of William H. Seward, and as such supported Seward's candidacy for the Republican nomination for President in 1860. In 1854 he established the "Michigan Journal of Education," of which he was sole editor for several years.

In 1863-'67 he was president of Kalamazoo College, and he then became president of the newly organized Industrial University in Champaign, Ill. He was a commissioner from the United States to the Vienna Exposition in 1873, a member of the Board of Judges in the educational department of the Centennial Exhibition at Philadelphia in 1876, and a commissioner from Illinois to the Paris Exposition in 1878. He resigned the presidency of the university in 1890. From 1882 till 1885 he was a member of the Civil-Service Commission of the United States, residing in Washington, D. C., thereafter. In 1886 Dr. Gregory made an extensive trip abroad in search of material for a work on sociology, which was never finished. He published many addresses on educational subjects, together with the following books: "Compend of the School Laws of Michigan"; "Handbook of History" (1866); "Map of Time" (1866); "A New Political Economy" (1882); "Seven Laws of Teaching" (1889); and "Political Economy" (1887). He also lectured on historical, political, and economic subjects. He was for some years president of the Civic Federation.

Gridley, Charles Vernon, naval officer, born in Logansport, Ind., in 1845; died in Kobe, Japan, June 4, 1898. He was appointed an acting midshipman in the United States navy from Michigan in 1860; was promoted midshipman, July 16, 1862; acting ensign, Oct. 1, 1863; master, May 10, 1866; lieutenant, Feb. 21, 1867; lieutenant commander, March 12, 1868; commander, March 10, 1882; and captain, March 14, 1897; and at the time of his death was commander of the cruiser "Olympia," the flagship of Rear-Admiral Dewey's famous squadron in Manila Bay. Capt. Gridley had already distinguished himself as an executive officer, when, in March, 1897, he was ordered to duty with the Asiatic squadron. On arriving at Hong-Kong, China, he was assigned to the "Olympia." On Sunday, May 1, the American fleet of 7 fighting vessels attacked and destroyed the entire Spanish fleet of 13 vessels, in the Bay of Manila. Just before this extraordinary naval battle opened Capt. Gridley took his station in the conning tower of the "Olympia," with Commodore Dewey on the bridge. As the flagship led the fleet into the bay, and when the cruiser drew near to the Spanish vessels, Commodore Dewey gave the order: "You may fire when you are ready, Gridley." Almost instantly the battle opened. Capt. Gridley handled his ship superbly throughout the action and fired the broadside that destroyed the Spanish flagship. At the time of the battle he was very ill, but he insisted on actively commanding his ship. Soon afterward his malady became aggravated and he was "invalided" to his home, and died soon after leaving his ship.

Gross, William Hickley, clergyman, born in Baltimore, Md., June 12, 1837; died there, Nov. 14, 1898. In 1857 he entered the novitiate of the Redemptorists at Annapolis; made his profession of religion in this order April 4, 1858; and was ordained March 21, 1863. He devoted the first year of his work as a priest to ministrations among the sick and wounded soldiers. After the war he was assigned to missionary duty in various places, but was attached to St. Alphonsus's Church till 1871, when he was appointed Superior of the Order of Redemptorists in Boston. He remained there two years, and April 27, 1873, was consecrated Bishop of Savannah. There several churches, hospitals, and orphanages were erected through his energy, and he did much for the education of the freedmen. In 1884 he became Archbishop of Oregon.

Hall, Abraham Oakley, lawyer, born in Albany, N. Y., July 26, 1826; died in New York city, Oct. 7, 1898. He was graduated at New York University in 1844, and his uncle, Samuel W. Oakley, of

New Orleans, offered to pay his expenses as a student of law, whereupon he entered the Harvard Law School. After one term he returned to New York, where he was in a lawyer's office for a brief time. He then went to New Orleans, took up in turn almost every branch of law, and mastered each. While studying he was obliged to earn money to support himself, and reported for several papers. He remained in New Orleans two years, returned to New York, and was admitted to the bar there in 1848, becoming a member of the firm of Brown, Hall & Vanderpool. In 1850 Mr. Hall was appointed assistant district attorney; in 1854 was elected district attorney, and was re-elected twice to the office, declining a fourth term to resume law practice. He again returned to the district attorney's office in 1861, remaining seven years as its chief. While there he argued before the Supreme Court and Court of Appeals more than 200 cases. In 1868 he was nominated by Tammany for the office of Mayor, and was elected. During his term the great Tweed ring frauds were disclosed. The most careful investigation in court and out of it, as to Mr. Hall's criminal relation to the acts committed by the "ring" exonerated him from any such participation. He held the office two terms, and the Tammany overthrow in 1872 ended his political career. On Dec. 18, 1875, he ventured on a short dramatic career, playing Wilmot Keviton in an original piece, "Crucible," at the Park Theater. For a time he returned to his old profession of journalism; was city editor of the "World"; went to London as a newspaper correspondent; from 1883 till 1888 represented the "Herald" there; and again in 1890 went there as correspondent for the "Journal." In 1889 he brought a suit against Prof. James Bryce, author of "The American Commonwealth," claiming damages to the amount of £20,000 for libel in the chapter on the Tammany scandals. The offending chapter was omitted in succeeding editions, but the suit dragged on and was finally dismissed with costs in 1897. In 1891 he returned to New York and re-engaged in his law practice, which he continued till his death. Mr. Hall's political vagaries won for him much criticism; he was first of all a Whig; then a Republican, supported the Know-nothings, and finally became a Democrat. In matters of religion, too, he was of unsettled belief; reared a Presbyterian, he turned in manhood to the faith of Swedenborg, and then, with his wife, became a convert to Roman Catholicism. He published a pamphlet on Horace Greeley and a volume of "Ballads," under the signature of "Hans Yorke" (1880).

Hall, Ephraim B., jurist, born in Martinsburg, Va. (now W. Va.), about 1823; died in Santa Barbara, Cal., Jan. 20, 1898. He was admitted to the bar in 1851. In 1861, as a member of the Richmond Convention, he voted against the ordinance of secession, and later, as a member of the Wheeling Convention, he earnestly advocated the reorganization of the Virginia State Government on the basis of loyalty to the Union. For these acts he was pronounced guilty of treason to his State, and a price was set on his head by the Confederate authorities. Judge Hall was a member of the convention that framed the first Constitution of West Virginia, and one of a committee of five appointed under it to procure the admission of the new State into the Union. He was Attorney-General of West Virginia four years, resigning to accept appointment to the bench of the circuit court. In 1870 he was chosen one of three commissioners to settle the debt question between Virginia and West Virginia, and afterward he held a judgeship till 1872, when he resigned and removed to Santa Barbara, where he engaged in private practice.

Hall, James, geologist, born in Hingham, Mass., Sept. 12, 1811; died in Echo Hill, near Bethlehem, N. H., Aug. 7, 1898. He was the son of James Hall and Susanna Dourdain, natives of Lancashire, England. His early education was received in the public schools of Hingham, and in 1831 he entered the Rensselaer School in Troy (now the Rensselaer Polytechnic Institute), where he came under the influence of Amos Eaton, then in charge of the scientific studies. He was graduated in 1832, but remained at the Institute as Assistant Professor of Chemistry and Natural Science, which chair he then held until 1854, when he was made Professor of Geology, which appointment he retained until 1876, when he was made emeritus professor. The geological survey of New York was organized in 1836, and the State divided into four districts.



Prof. Hall was made an assistant geologist and assigned to the second district, under Ebenezer Emmons. A year later he became State Geologist and took charge of the fourth district. He began his explorations in the western part of the State, and from 1838 till 1841 prepared the second to the fifth annual reports on the work. In 1843 he published his final report of the survey of the fourth geological district as "Geology of New York, Part IV" (Albany, 1843), in which, according to T. Sterry Hunt, "he described in a very complete and exhaustive manner the order and succession of the strata, their mineralogical and lithological characters, and the organic remains which they contain." He retained the title of State Geologist, and in 1843 assumed charge of the palaeontological work of the State survey. His results are contained in 13 volumes of the "Natural History of New York," bearing the subtitle "Palaeontology" (Vols. I to VIII, Albany, 1847-'94). This is considered "the most comprehensive work of the kind which any State or country in the world possesses." The first appropriation (\$15,000) that was made for this work was with the understanding that it should be completed for that sum, but again and again, as the work progressed, Prof. Hall appealed for additional funds for its completion, until in 1894 it was estimated that the entire work had cost the State more than \$1,000,000. The comprehensive studies by Prof. Hall on the palaeontology of New York naturally demanded researches beyond the limits of the State, and these he extended westward to the Rocky Mountains, and it is generally admitted that his investigations have served as the basis of all our knowledge of the geology of the Mississippi basin. In 1855 he was offered the charge of the palaeontology of the Geological Survey of Canada, with the promise of succeeding Sir William E. Logan as director on the retirement of the latter; but as he was about to accept promises of more liberal appropriations from the Legislature and the influence of many American scientists, including Louis Agassiz and James D. Dana, he declined the offer—a decision which, as the promises never were realized, he came to regard as "the great mistake of his life." Subsequently he prepared a monograph on the "Graptolites of the Quebec Group" (Montreal, 1865), which he contributed to the publications of the Canadian survey, and it was accepted as "the most complete work on that class of fossils." In addition to his State appointment in New York he held the office of State Geologist in Iowa in 1855,

and in Wisconsin in 1857. For the former he prepared the geological and palaeontological portions of the two volumes of the "Geological Survey of Iowa" (Albany, 1858-'59), and he wrote the chapters on physical geography, geology, and palaeontology for the "Report on the Geological Survey of the State of Wisconsin" (Madison, 1862). The examination and description of specimens collected for the Government were frequently assigned to him, and he wrote the palaeontological portions of "Frémont's Exploring Expedition; Appendix A" (Washington, 1845); "Expedition to the Great Salt Lake" (Philadelphia, 1852); "United States and Mexican Boundary Survey" (Washington, 1857); and "United States Geological Exploration of the Fortieth Parallel" (Vol. IV, 1877). In 1866, on the reorganization of the New York State Museum, he was appointed its director, which office, in addition to that of State Geologist, he held until 1893, after which he retained only that of State Geologist, which he continued to fill until his death. In connection with the State Museum he made annual reports (Albany, 1866-'92), which were published by the State and contained valuable papers by him on geology and palaeontology. As State Geologist he published 15 reports (Albany, 1884-'95), of which the last 2 are quarto. Prof. Hall devoted much time to crystalline stratified rocks, and he was the first to point out the persistence and significance of mineralogical character as a guide to classification. Concerning this, McGee has said: "It is not too much to say that the method was established by the New York survey, and that it finds its best illustration in the classic fourth district; here it was that American stratigraphic geology was founded." He also laid the foundation for a rational theory of mountains, which is discussed in the third volume of the "Palaeontology of New York," and is accepted as "one of the most important contributions ever made to the doctrine of isostasy. The sixtieth anniversary of the beginning of his service to science as State Geologist of New York was celebrated by a special session of Section E (geology and geography) at the Buffalo meeting of the American Association for the Advancement of Science, at which addresses descriptive and appreciative of his work were made by W. J. McGee, John M. Clarke, Benjamin K. Emerson, Joseph LeConte, George M. Dawson, T. Guilford Smith, and John J. Stevenson. On this occasion he was called the "Founder of American Stratigraphy." He received the degree of A. M. from Union College in 1842, and that of LL. D. from Hamilton in 1863, from McGill in 1884, and from Harvard in 1886. Prof. Hall received the quinquennial Walker grand prize of \$1,000 awarded in 1884 by the Boston Society of Natural History, and in 1889 he was the recipient of the Hayden medal given by the Philadelphia Academy of Natural Sciences. In 1840 he was one of the founders of the American Association of Geologists and Naturalists, and after its development into the American Association for the Advancement of Science was elected president in 1856, delivering his retiring address on "Contributions to the Geological History of the American Continent" at the Montreal meeting in 1857. At the time of his death he was one of the very few surviving original members of the association by which in 1890 he was made one of its six honorary fellows. He was one of the original members of the National Academy of Sciences, named by act of Congress in 1863. He was one of the founders and president of the International Congress of Geologists held in Philadelphia in 1876; one of its vice-presidents at the sessions held in Paris in 1878, in Bologna in 1881, in Berlin in 1885, and president at the session held in Washington in 1891, and in St. Petersburg

in 1897. He was elected one of the 50 foreign members of the Geological Society of London in 1848, and in 1858 was awarded its Wollaston medal. In 1884 he was elected correspondent of the Academy of Sciences in Paris and was a member of many other scientific societies at home and abroad. Besides his larger works, most of which have been mentioned, he was the author of more than 300 separate papers, of which a list from 1836 to 1883 is given in the "Thirty-sixth Annual Report of the New York Museum of Natural History" (Albany, 1884). Says a recent writer: "He is known wherever the language of science is spoken; he is honored in his State, revered in his friendly circle, and esteemed in far countries; he is the founder of stratigraphic geology and applied palaeontology in America."

Hall, John, clergyman, born in County Armagh, Ireland, July 31, 1829; died at Bangor, County Down, Ireland, Sept. 17, 1898. He entered Belfast College at the age of thirteen, and in 1852 became pastor of a Presbyterian church in Armagh, and in 1858 of St. Mary's Abbey, in Dublin. In 1867 he was sent by the Irish Presbyterian Church as a delegate to the Presbyterian churches of the United States, and soon after his return to Ireland he received a call to the pastorate of the Fifth Avenue Presbyterian Church, of New York city. On his acceptance he was installed pastor of this church in November, 1867, and he held this office at the time of his death. He was one of the most prominent clergymen in his denomination, and was widely known as a religious writer. For several years he contributed a weekly column to the "New York Ledger," and his explanations of the International Sunday-school lessons were long a feature of the "Sunday-School World." His published books include "All the Way Across"; "The Chief End of Man"; "Familiar Talks to Boys"; "How to study International Sabbath-School Lessons"; "Minor Characters of the Bible"; "The Only Rule of Faith"; "Sabbath-School Theology"; "The Sower and the Seed"; "Family Prayers for Four Weeks" (edited, 1868); "Care Cast upon the Lord" (1869); "Papers for Home Reading" (1871); "Questions of the Day" (1873); "Preaching: Manner and Matter" (1874); "Thoughts for the Old Year and the New" (1874); "God's Word through Preaching" (1875); "Memorials of Wesleyan Ministers from 1777 to 1840" (1876); "You and your Children" (1877); "Foundation Stones for Young Builders" (1881); "A Christian Home and how to Maintain it" (1884); "Family Prayers for Working People" (edited, 1885). With T. L. Cuyler and H. W. Beecher he published "Successful Preaching" (1881); and with G. H. Stuart, "The American Evangelists" (1875).

Halsey, Harlan Page, author, better known as "Old Sleuth," born in New York city in 1837; died there, Dec. 16, 1898. When a boy he was employed on "Frank Leslie's Magazine." His first book, a novel of 300 pages, published at his own expense, was written when he was sixteen years old. The book that gained him the title of "Old Sleuth" was founded on the celebrated kidnapping case of Charlie Ross (see "Annual Cyclopædia" for 1897, page 617). His books numbered 135, the last one being "Only a Photograph." He was a remarkably rapid writer, and his stories were popular with the uneducated classes. He was a member of the Board of Education in New York city from 1885 to 1895, in which time he was particularly interested in night schools and drawing classes.

Hamilton, John B., surgeon, born in Jersey County, Ill., in 1847; died in Elgin, Ill., Dec. 24, 1898. He was graduated at Rush Medical College, Chicago, in 1869. He was appointed assistant surgeon in the United States army in 1874, but resigned

in 1876 to enter the Marine-Hospital service. In 1879 he became supervising surgeon general of that service. During his administration he fought, with success, two epidemics of yellow fever; brought about the first visual examinations of fresh-water pilots, and the first physical examinations of seamen preliminary to shipment, and drafted the national quarantine acts. In 1891 he resigned his office, because it was not equalized with the offices of the surgeons general of the army and navy. He, however, remained in the ranks till 1896, when he resigned from the service altogether. He was Professor of Surgery in two colleges of Chicago, and possessed the largest surgical library in the West. He was editor of "The Journal of the American Medical Association."

Hamilton, John M., military officer, born in Canada, June 1, 1839; killed near Santiago, Cuba, July 1, 1898. In early life he went to live with relatives in Geneva, N. Y. He enlisted in the 33d New York Infantry, May 1, 1861; was appointed a 2d lieutenant in the 9th United States Colored Infantry, Dec. 24, 1863; was promoted 1st lieutenant, May 15, 1865; and leaving the volunteer service was appointed a captain in the 39th United States Infantry, June 6, 1867. He was transferred to the 5th United States Cavalry, Dec. 30, 1870; promoted major 1st Cavalry, April 2, 1887, and lieutenant colonel 9th Cavalry, Dec. 8, 1896; and from the last date till his death commanded the regiment, owing to the continued illness of Col. Perry. In 1865 he was brevetted captain in the volunteer army for meritorious services during the civil war, and in 1890 major in the regular army for gallant services in action against Tonto Apache Indians in Arizona Jan. 16, 1873. He commanded his regiment in Cuba, and was killed at its head while leading the charge against the fortified blockhouse on San Juan Hill, near Santiago.

Handy, Moses Purnell, journalist, born in Warsaw, Mo., April 14, 1847; died in Augusta, Ga., Jan. 8, 1898. He was educated at the Virginia Collegiate Institute in Portsmouth; served for some time in the Confederate army on the staff of Gen. Stevens, chief of engineers of Gen. Lee's army; and after the war entered journalism in Richmond, first on the "Christian Observer," and later on the "Dispatch." He was the only newspaper correspondent that witnessed the surrender of the captured filibuster steamer "Virginius" to the United States authorities by the Spanish Government in 1873, and his report led to his receiving a call to join the staff of the "New York Tribune." In 1875 he returned to Richmond as editor-in-chief of the "Enquirer." A year later he was appointed commissioner from Virginia to the Centennial Exposition in Philadelphia, and soon after reaching that city he became an assistant editor of the "Times," for which he reported the events in Louisiana growing out of the presidential electoral dispute. In 1890 he was appointed managing editor of the Philadelphia "Press"; in 1884 established the "Daily News" in that city; and in 1892 became chief of the Bureau of Promotion and Publicity of the World's Columbian Exposition. Soon after the close of the exposition he assumed charge of the editorial page of the "Chicago Times-Herald," and in July, 1897, President McKinley appointed him special commissioner of the United States to arrange for the reception and display of American exhibits at the Paris Exposition of 1900. This task he had but recently completed at the time of his death.

Handy, Truman Parmelee, capitalist, born in Paris, N. Y., Jan. 17, 1807; died in Cleveland, Ohio, March 25, 1898. At the age of eighteen he removed to Geneva, N. Y.; and thence, in 1830, to Buffalo, where he assisted in organizing the Bank of Buffalo.

In 1832 he removed to Cleveland and became cashier of the reorganized Commercial Bank of Lake Erie, the charter of which had been purchased by the historian George Bancroft. The bank was so prosperous that the Legislature refused to renew its charter in 1842. In 1843 he organized the private banking house of T. P. Handy & Co. When the State Bank of Ohio was established, in 1845, he organized the Commercial Branch Bank and he was either its cashier or president for the twenty years of its existence. The financial panic of 1857 was caused, in northern Ohio, by the failure of the Ohio Life and Trust Company, and this left the Merchants' Branch of the Ohio State Bank in bad financial condition. Mr. Handy accepted the presidency in 1862, and within three years he had the institution on a solid basis. He was also president of its successor, the Mercantile National Bank, for many years. He was among the most efficient workers for the completion of the Cleveland, Columbus and Cincinnati Railroad, and was its treasurer and chief financial officer till 1860. He was largely interested in iron mining and in various forms of iron manufacture. He was a trustee of Western Reserve College and of Lane Theological Seminary; and, for ten years in its early days, he was a member of the Board of Education in Cleveland, and he did much toward shaping the school system of that city.

Harden, William Dearing, lawyer, born in Athens, Ga., Jan. 15, 1837; died in Savannah, Ga., Jan. 11, 1898. He was graduated at Princeton in 1856; studied law, and was admitted to the bar in Savannah. At the outbreak of the civil war he entered the Confederate army and rose to the rank of chief of ordnance in an army corps. After the war he resumed law practice in Savannah, and for fourteen years was judge of the city court. Subsequently he became counsel for several railroad corporations in Georgia and New York. He was vice-president of the Georgia Historical Society. He wrote much on historical subjects, and published a treatise on dogmatic religion.

Harris, Robert S., clergyman, born in Philadelphia, Pa., in 1816; died in Camden, N. J., March 22, 1898. He began preaching under the authority of the Methodist Episcopal Conference of New Jersey in 1846, and from that time till his retirement from active work, in 1893, he held pastorates in nearly every county in the State. He was known as the founder of Children's Day, which is annually observed in the Methodist Church on the second Sunday in June. His purpose was originally to have a day designated for special services and contributions in behalf of the educational part of the church work, in which the children should have a conspicuous part. The General Conference adopted his idea in 1872, and Children's Day soon became an impressive summer festival, enlivened with floral decorations and services especially adapted to children. Thousands of Methodist Sunday-school children have been educated with the funds collected on these days. Money is loaned to deserving pupils on their personal notes, and when they enter the ministry of the Church the notes are destroyed.

Haskell, Joseph T., soldier, born in Cincinnati, Ohio, Nov. 19, 1838; died in Columbus, Ohio, Sept. 16, 1898. He entered the volunteer army in the civil war; was appointed a captain and commissary of subsistence Feb. 19, 1863; and was brevetted major, March 13, 1866; lieutenant colonel, April 2, 1866; and colonel, Nov. 26, 1866. At the close of the civil war he entered the regular army as captain of the 23d Infantry, July 28, 1866; and was promoted major of the 24th Infantry, June 28, 1892; lieutenant colonel of the 17th Infantry, Aug. 27, 1896; and brigadier general, Sept. 7, 1898. He was in command of the San Juan Islands from

January, 1869, till January, 1872, when they were the subject of contention between the United States and Great Britain; in 1888 he was made a member of the Tactics Board, assisting in the compilation of the military tactics which are now used by the army. From 1891 till 1898 he was a member and president of the Board of Examiners of officers for promotion, and from July, 1893, was instructor in the Infantry and Cavalry School at Fort Leavenworth, Kan. In the Santiago campaign in Cuba he led his regiment through the succession of barbed-wire fences which surrounded the blockhouses at El Caney till he was wounded. First a bullet struck his right foot, soon afterward he was shot in the left shoulder, and in another instant he received a bullet in the knee. Of the five soldiers who volunteered to bring him off the field three were shot. He survived his wounds, was taken to Siboney, and then to Fort Monroe, where he recovered rapidly, and as soon as he was able returned to Columbus, where he received his commission as brigadier general for gallantry on the field. Nine days later he rode at the head of his regiment on its return to Columbus, and in the afternoon of the same day he died of apoplexy.

Haxtun, Milton, naval officer, born in New York city, Oct. 5, 1825; died in Brooklyn, N. Y., May 26, 1898. He was appointed a midshipman in the United States navy, Oct. 19, 1841; was promoted passed midshipman, Aug. 10, 1847; master, Sept. 14, 1855; lieutenant, the day following; lieutenant commander, July 16, 1862; commander, Jan. 12, 1867; and captain, Feb. 2, 1876; and was retired Feb. 7, 1883. He was on sea service twenty-one years and eight months, and on shore or other duty thirteen years and eight months. After a service with the Brazilian squadron he was transferred to the fleet operating against Mexico, and after the war was on mail steamship duty two years. In 1852-'54 he was attached to the "Plymouth," of the East Indian squadron, in which he took part in the capture and destruction of the Chinese forts near Canton; and in 1860-'61, with the "Mystic," he aided in suppressing the slave trade on the coast of Africa. During the civil war he was present at the capture of Fort Macon, and was principally engaged in blockading duty. When the United States declared war against Spain he offered his services to the President, though on the retired list, and after hostilities began he was recalled to service, but was too feeble to be informed of the order.

Hays, John Betts, soldier and journalist, born in Meadville, Pa., March 12, 1839; died there, July 18, 1898. He was graduated at Allegheny College in 1858 and admitted to the bar in 1861. In the latter year he entered the United States army as a 2d lieutenant; served in the Peninsula, Maryland, and Fredericksburg campaigns, and was promoted to 1st lieutenant in 1862. He was transferred in 1863 to the Army of the Cumberland, and was then made commissary of the 1st division, Reserve Army Corps. He also served as mustering and disbursing officer on the staffs of Gens. Baird, Steedman, and Thomas. He took part in the campaigns of Chickamauga and Chattanooga, was specially mentioned for bravery by Gen. Rosecrans, and was promoted to major. He was for four years assessor of Internal Revenue for the 20th District of Pennsylvania. He entered upon active newspaper work in Meadville in 1869. From 1874 till 1886 he held a place in the customhouse in New York city. After 1886 and almost to the day of his death he was connected with the editorial staff of the "New York Tribune," his special work being the political events that took place in and about the City Hall. He was an authority on news from that quarter, and he had an extensive acquaintance among politicians of all parties.

Hazard, Rowland, manufacturer, born in Rhode Island in 1829; died in Watkins, N. Y., Aug. 16, 1898. He was the owner of a large woolen mill in Peacedale, R. I., and president of several large industrial companies. He introduced the manufacture of soda ash in this country and was instrumental in organizing the Spray Process Company, of Syracuse, N. Y. Mr. Hazard was a trustee of Brown University from 1875 till 1889, and a fellow from 1889 till his death. (See GIFTS AND BEQUESTS.)

Hendren, John Newton, jurist, born in Augusta County, Va., in 1823; died near Staunton, Va., March 5, 1898. He was graduated at the University of Virginia, and after being admitted to the bar, served several years as commissioner in chancery and as commonwealth attorney. On the organization of the Confederate States Government he was summoned to Richmond to take the office of Treasurer of the Confederacy. He held this post through the war, and on the evacuation of Richmond he accompanied Mr. Davis in his flight, taking a large amount of Government gold with him. When Mr. Davis realized that the capture of himself and his suite by the National authorities was certain, he directed Mr. Hendren to distribute the money in his possession among the Confederate soldiers, to prevent it falling into the hands of his pursuers. After the war Judge Hendren resumed practice in Staunton, was again appointed commissioner in chancery, and from 1870 till 1880 was the first judge of Augusta County.

Henley, Edward John, actor, born in Gloucestershire, England, Aug. 17, 1861; died in Lake Placid, N. Y., Oct. 16, 1898. He made his first appearance on the stage at Middleborough, Yorkshire, England, in 1879, as a member of a pantomime company. His first London engagement was in the following year, when he played a part at the Gaiety Theater in a burlesque of "Carmen." He was then engaged by John Hare for the St. James Theater. Dissatisfied with London, he came to the United States and made his first New York appearance in a burlesque of "The Corsican Brothers," produced at the Park Theater, corner of Broadway and Thirty-fifth Street. He went thence to Wallack's Theater as a member of the stock company. Mr. Henley returned to England in 1884 and produced a play written by his brother, William Ernest Henley, and Robert Louis Stevenson, called "Deacon Brodie," playing the title rôle. He subsequently brought the play to the United States and produced it through the West for a part of one season. He then became leading man with Mme. Modjeska, and on the conclusion of that engagement remained in New York with the intention of playing only in that city. He participated in many new plays as a leading man, among which were "Money Mad," "The Ugly Duckling," "The Junior Partner," "Gloriana," "The Price of Silence," and "Pud'n-head Wilson." He played Iachimo in the production of "Cymbeline" by Margaret Mather at Wallack's Theater in the autumn of 1897, but his eyes failed during the run of the play, and he was compelled to retire permanently from the stage.

Herrmann, Charles Wilhelm August, mineralogist, born in Silesia, Germany, July 3, 1801; died in New York city, June 20, 1898. He was born on the estates of Baron Richthofen, of which his father was supervisor, and from an early age was deeply interested in the study of mineralogy and conchology. After taking the full course at the University of Breslau, he was appointed Professor of Mineralogy there. He resigned the chair after several years' service, spent some time in advanced study in Mecklenburg, and established himself in Breslau as a collector of minerals and shells for

educational institutions, museums, etc. In 1853 he removed to New York city, where he carried on the mineralogical part of his early business till his death. He brought with him his collection of minerals, which is believed to have been the first imported into the United States. In 1857, at the Crystal Palace Exhibition, he received the competitive medal for the best display of mineral specimens and cabinets of minerals for schools. Prof. Herrmann was also an accomplished linguist.

Herter, Robert Johnson, painter, born in Stuttgart, Germany, in 1874; died in Nesles-la-Vallée, France, April 20, 1898. He was educated in his native city; came to New York in 1888, and, joining the Art Students' League, studied a year with Kenyon Cox; and continued his art studies in Stuttgart with Robert Haug, head of the Royal Academy there. In 1893 he again came to New York, where he established a studio, and produced promising *genre* canvases. Subsequently he opened a studio in Paris. Two days before his death his parents, in New York, received a letter from him saying that his latest painting, a scene in the American civil war, had just been accepted for exhibition in the Paris Salon. He was an enthusiastic worker, and had given evidence of high artistic merit.

Hieronymo, Mother. See O'BRIEN, VERONICA.

Hoagland, Cornelius Nevius, physician, born in Neshanic, Somerset Co., N. J., Nov. 23, 1828; died in Brooklyn, N. Y., April 24, 1898. He removed with the family to Piqua, Ohio, in 1834; was graduated at the medical department of Western Reserve University in 1852; served four years as auditor of Miami County; and was surgeon of the 71st Ohio Infantry from 1861 till 1866. He took part in important engagements, and was wounded in the battle of Nashville. After the war he engaged in business pursuits, removed to Brooklyn in 1868, and retired from active business in 1876. In 1888 he founded the Hoagland Laboratory with a gift of \$150,000. Shortly before his death he gave the laboratory \$24,000; the Brooklyn Eye and Ear Hospital, \$14,000; and the Brooklyn Free Kindergarten Society, \$20,000. One of the 16 kindergartens established by the society was named for him and wholly maintained by him.

Holt, Homer A., jurist, born in Parkersburg, Va. (now W. Va.), April 27, 1831; died in Lewisburg, W. Va., Jan. 7, 1898. He was the son of a pioneer Methodist missionary in the central part of what is now West Virginia, and was educated at Rector College, Pruntytown, and at the University of Virginia, leaving the latter in 1851. He taught in Weston while studying law, was admitted to the bar in 1853, and settled in Braxton Courthouse to practice. In 1854-'56 he was deputy surveyor for Braxton and Nicholas Counties. He was arrested as a Confederate sympathizer early in 1862 and sent to Camp Chase, Ohio; was ordered to be taken to Vicksburg for exchange in 1863; and was afterward held prisoner at Camp Douglas, Chicago, and City Point, Va. After being exchanged at the latter point he joined the Confederate army at Salem, Va., and served to the close of the war. He was on the Judiciary and Land Titles Committees of the State Constitutional Convention in 1872, and the same year was elected judge of the 8th Judicial Circuit of West Virginia for a term of eight years. In 1880 he was elected judge of the newly created 10th Circuit; in 1890 was appointed a justice of the Supreme Court of the State to fill a vacancy; and in 1892 was elected to the same post to fill out the unexpired term that ended Jan. 1, 1897.

Hotto, Henry, comedian, born in New York city, in 1833; died there, Dec. 4, 1898. He was employed as a boy by Goodyear Brothers, and was after-

ward apprenticed to a wood engraver; but he had a stubborn liking for the theater, and became a player in the celebrated company of juvenile actors known as "The Marsh Troupe." After traveling over the country with this organization for a short time, during which he became noted for his performances of old men in the Shakespearean and other standard plays, he returned to New York, and for a time filled subordinate places in different theaters. In 1852-'53 he was engaged for the Albany Theater stock company to play old men. He was associated in this company with the late James Lewis, and they became known as "the two young old men." After two seasons in Albany, Mr. Hotto was engaged for the Pittsburg Theater to play comedy and old men. He remained several years in Pittsburg and was very popular as an actor of amusing and eccentric characters. He attracted the attention of Laura Keane, and was engaged by her as the comedian of her theater in Washington. At the expiration of a season he was engaged by John T. Ford, who maintained stock companies in both Washington and Baltimore, to fill the leading comedy rôles in his Baltimore company. For four years Mr. Hotto popularly sustained this appointment, playing frequently in Washington, where he was as great a favorite as in Baltimore. From Baltimore he moved to the New Bowery Theater, New York, and became a favorite of the metropolis during the years of the civil war. In 1865 he became the comedian of the first stock company organized in New Orleans after the war. When the era of traveling combinations began, Mr. Hotto remained content with a subordinate place in support of more ambitious comedians, and for many years was associated with Frank Chanfrau, Maggie Mitchell, and Minnie Palmer, as a comedian of the first rank. From 1882 to 1891 he played the parts created by James Lewis in the successive tours of the country made by the plays from Augustin Daly's theater. Four years ago, while playing in Boston, he was seriously injured by persons who attempted to rob him. His retirement from acting, and ultimately his death, were caused by this injury. He had amassed and inherited considerable property in New York city, and was little known to the stage during the last six years of his life.

Howard, Blanche Willis (Teuffel), author, born in Bangor, Me., July 21, 1847; died in Munich, Germany, Oct. 7, 1898. Her first book, "One Summer" (Boston, 1875), was a breezy story full of humor and made an immediate success. Very soon after its publication she removed to Stuttgart, Germany, where for several years she edited a magazine printed in English. About 1890 she married Prof. Von Teuffel. Her books include "One Year Abroad" (1877); "Aunt Serena" (1880); "Guenn, a Wave on the Breton Coast" (1882); "Aulnay Tower" (1886); "The Open Door"; "Seven on the Highway"; "No Heroes"; and, with William Sharp, "A Fellowe and his Wife."

Howlett, Thomas Rosling, clergyman, born in Cambridgeshire, England, March 19, 1827; died in Philadelphia, Pa., Feb. 22, 1898. He came to the United States in early youth, and was graduated at Madison University in 1856, and at its seminary in 1858. During his active career he held Baptist pastorates in New Brunswick, N. J., Albany, N. Y., Trenton, N. J., Washington, D. C., Hudson, N. Y., and Plainfield, N. J. Besides many articles in secular and religious periodicals, he was author of "Anglo-Israel and the Jewish Problem, with Supplement," a work that attracted much attention and criticism; "The Bible a Sealed Book; Why?" "Songs of Israel"; and "Baptismal Souvenir."

Hoyt, Charles N., physician and philanthropist, born in Ridgefield, Conn., June 8, 1822; died in

Canandaigua, N. Y., Dec. 13, 1898. He removed with his parents to western New York in 1834, and was graduated at Geneva Medical College in 1847. In 1862 he was appointed assistant surgeon of the 126th New York Regiment, and in 1864 he was promoted to surgeon of the 39th Regiment. While on duty with the 126th Regiment he was taken prisoner at Harper's Ferry, but he was soon exchanged. He was with the 89th Regiment from Gettysburg to Appomattox, and was mustered out of the service at the close of the war. In 1852, and again in 1867, he represented Yates County in the Assembly of New York. During the latter year, as Chairman of the Committee on State Charitable Institutions, he succeeded in having passed a law establishing a State Board of Charities, of which in 1868 he was made secretary, an office that he occupied till, in 1894, he became Superintendent of State and Alien Poor. His most important work while secretary was the execution of the State pauper act of 1873, and the alien poor act of 1880. Owing to his efforts in enforcing the latter act more than 3,500 infirm alien paupers were returned to their native countries between 1880 and 1898, and the whole number of removals to other countries and to other States of the Union under both acts was 27,752 between 1873 and 1898. He gave his personal attention to nearly all such removals, and thus saved the State of New York an expenditure estimated at \$42,628,000. The State Board of Charities in its annual report for 1896 commended his work in the highest terms and declared that no criticism or complaint of his conduct had ever been made. He was an active agent in the opening of the Craig Colony for Epileptics in 1894. He prepared many papers on immigration. In 1874 he was an organizer of the National Conference of Charities and Correction, and he was elected president of it in 1888.

Hunt, Albert Sanford, clergyman, born in Amenia, N. Y., July 8, 1827; died in Brooklyn, N. Y., Sept. 11, 1898. He studied at Amenia Seminary and was graduated at Wesleyan University in 1851, where he served as tutor and Adjunct Professor of Moral Science till 1855. In 1859 he joined the New York East Conference, his first pastorate being the old Nathan Bangs's (now New York Avenue) Church, Brooklyn. He was successively pastor of the South Fifth Street, First Place, Washington Street, Hanson Place, and Pacific Street Churches. In 1872, 1874, and 1884 he was elected to the General Conference of the Methodist Episcopal Church; in 1874 was chairman of the fraternal delegation to the General Conference of the Methodist Episcopal Church, South, at Louisville, Ky., and in 1886 went to England as delegate to the British Wesleyan Conference. In 1878 he was elected corresponding secretary of the American Bible Society, and he held this office till his death. In his official capacity he presented the Bible cause in every State and Territory in the United States. (See GIFTS AND REQUESTS.)

Hurt, Ashley D., educator, born in Petersburg, Va., in 1834; died in New Orleans, La., March 10, 1898. He was graduated at the University of Virginia and the University of Göttingen, Germany; was for some time principal of the high school at Louisville, Ky., the Florida Agricultural College, at Lake City, and Tulane High School, at New Orleans, and since 1894 had been Professor of Greek in Tulane University. Prof. Hurt held high rank as a Greek scholar.

Jackson, Henry Rootes, military officer, born in Athens, Ga., June 24, 1820; died in Savannah, Ga., May 23, 1898. He was a son of Prof. Henry Jackson, of the University of Georgia; was graduated at Yale College in 1839, was admitted to the bar in 1840, and settled in Savannah. In 1843 he

was appointed United States district attorney for Georgia. He served in the Mexican War as colonel of the 1st Georgia Volunteers, and after its close was for a year editor and part owner of "The Georgian," of Savannah. The Legislature in 1849 elected him judge of the Superior Court for the Eastern Circuit for the term of four years, and in May, 1853, he was appointed United States *chargé d'affaires* at the court of Austria. In 1854 the grade of the mission was raised, and he served as minister resident till his resignation, in July, 1858. Soon after his return he was commissioned by the Federal Government to assist the United States district attorney of Georgia in prosecuting notorious slave-trading cases, in which he encountered the opposition of a large popular sentiment. On the secession of his State he was appointed major general in command of the State militia, and in August, 1861, he entered the Confederate army as brigadier general. He was taken prisoner at the battle of Nashville, in December, 1864, and was held till the close of the war. He then resumed law practice in Savannah. From 1875 till 1888 he was a trustee of the Peabody Education fund, and from 1872 till his death was president of the Georgia Historical Society. In March, 1885, he was appointed United States minister to Mexico, but he resigned within a few months, owing to a difference of opinion with the Government relative to the course to be pursued on the seizure of the American vessel "Rebecca" by Mexicans. Gen. Jackson was author of "Tallulah, and Other Poems" (Savannah, 1850), and of several separate poems which have had a large circulation in the South. His most popular poem was "The Old Red Hills of Georgia," which he wrote while serving in the Mexican War.

Jewett, Hugh Judge, railroad president, born in Deer Creek, Harford County, Md., July 1, 1817; died in Augusta, Ga., March 6, 1898. He was educated at Hiram College, Ohio; admitted to the bar at Elkton, Md., in 1838; and engaged in practice at St. Clairsville, Ohio, till 1848. In the last year he removed to Zanesville, and became president of a branch of the State Bank of Ohio. Soon afterward through the influence of his elder brother Thomas, he was elected president of the Central Ohio Railroad Company. Within a short time he became one of the best-known lawyers in Ohio in matters relating to commercial, banking, and railroad affairs. In 1852 he was a Democratic presidential elector, in 1853 was elected to the State Senate, and in 1854 was appointed United States attorney for the Southern District of Ohio. He was credited with the organization of the Pittsburg, Cincinnati and St. Louis Railroad; was one of the organizers of the Pennsylvania Railroad; and undertook the construction of the Kansas Pacific and other Western railroads. In 1871 he was appointed general counsel of the Pennsylvania Railroad, and in 1872 was elected to Congress. In June, 1874, Peter H. Watson, who had been president of the Erie Railway Company for two years, resigned the office. The English holders of the Erie bonds invited Thomas A. Scott, then first vice-president of the Pennsylvania Railroad Company, to accept the office, and he had prepared to do so when the death of President Frank Thompson advanced him to the head of that company. This event complicated the memorable struggle for control of the Erie. The English bondholders appealed to Col. Scott to suggest a suitable man for their president, and he recommended Mr. Jewett. A contract was made with the latter, under which he resigned his seat in Congress and assumed the presidency for a term of ten years at a salary of \$40,000 per annum and on the immediate payment of \$150,000 in a lump sum, or \$15,000 for each year of the contract. This was

said to be the largest salary ever paid to a railroad president anywhere. Mr. Jewett assumed the management of the affairs of the company in July, 1874. About a year afterward the company was obliged to apply for a receiver and President Jewett was appointed to that office. He succeeded in extricating the corporation from its financial embarrassments; became president of its reorganized board of directors, and in 1884 retired from business life to his home in Zanesville.

Johnson, Rachel, actress, born in Louisville, Ky., July 4, 1845; died in New York city, Oct. 10, 1898. At an early age she made her first appearance on the stage as Parthenia in "Ingomar," at the Howard Athenaeum, Boston, while that theater was under the management of Edward L. Davenport. Soon afterward she married Bernard Macauley, an actor and manager of the Louisville Theater. She remained in her native city for many years, occupying the place of leading woman in her husband's theater and aiding him in the management of that house as well as Wood's Theater, Cincinnati, of which he was also manager. From time to time she also played starring engagements in the Southern States, and she became very popular. After her marriage she was professionally known as Rachel Johnson for some years, but finally she assumed her married name on the bills and was generally referred to as Mrs. Barney Macauley. Her last appearance was at Palmer's Theater, New York city, in the title rôle of "Clarisse," her adaptation of Dumas's play "Francillon," May 16, 1890.

Johnston, Richard Malcolm, author, born in Powelson, Hancock County, Ga., March 8, 1822; died in Baltimore, Md., Sept. 23, 1898. He was graduated at Mercer University, Ga., in 1841, and after teaching for a year was admitted to the bar. From 1857 to 1861 he was Professor of Literature in the University of Georgia, and during the civil war he was an officer in the Confederate service. Since 1867 he had lived in Baltimore, engaged in literary work. As a humorist his merits are considerable, and as a careful, faithful delineator of certain phases of Southern life he takes honorable rank. His novels and short stories are mainly concerned with the life of middle Georgia. His various published books include "Georgia Sketches" (Augusta, 1864); "Dukesborough Tales" (Baltimore, 1871); "Historical Sketch of English Literature," with W. H. Browne (Philadelphia, 1872); "Life of Alexander H. Stephens," with W. H. Browne (1878); "Old Mark Langston" (New York, 1884); "Two Gray Tourists" (1885); "Mr. Absalom Billingslea and Other Georgia Folk" (1888); "Ogeechee Cross Firings" (New York, 1889); "Widow Guthrie" (1890); "The Primes and their Neighbors" (1891); "The Chronicles of Mr. Bill Williams"; "Studies: Literary and Social" (Indianapolis, 1891-'92); "Mr. Billy Downs and his Likes" (New York, 1892); "Mr. Fortner's Marital Claims" (1892); "Little Ike Templin" (Boston, 1894); "Old Times in Middle Georgia" (New York, 1897); "Pearse Amerson's Will" (Chicago, 1898).

Josephine, Mother, benefactor, born in Ireland, about 1827; died in Leavenworth, Kan., Feb. 7, 1898. She was in her twentieth year when pestilence and famine in her native land reached their height. She applied herself fearlessly to the work of relief, and when the worst had passed became a Sister of Charity. Coming to the United States, she first settled in Cincinnati. In 1854 she joined Mother Xavier in Nashville, and in 1858 went to Leavenworth, where Bishop Miege placed Sister Josephine in charge of the novices. When St. John's hospital was completed she was appointed to take charge of its management. From superior of the hospital she became procuratrix of the whole com-

munity, assistant mother of the sisters, and mother superior, being elected to the last office three times in succession. She was widely known in the West because of her success in establishing academies, hospitals, and asylums. The last completed work in her long life of benevolence is the orphan asylum at Helena, Mont., which cost more than \$50,000. Under her immediate charge at Leavenworth were more than 300 sisters, who looked after orphan children in asylums, nursed 10,000 patients annually in 10 hospitals, and taught in 15 schools.

Joy, John D. W., merchant, born in Boston, Mass., in 1828; died there, Oct. 4, 1898. He was educated in the common schools, entered business life, and was variously employed till he became a partner in the house of Mason, Lawrence & Co. Later he was a member of the firm of Frothingham & Co., and on the death of Mr. Frothingham he established, about 1870, the firm of Joy, Langdon & Co., dry-goods merchants. He was an active worker in the Universalist Church; was president of the Massachusetts Universalist Convention for thirty-five years, and treasurer of the Universalist publishing house thirty years. He was also president of the Board of Trustees of Tufts College, with which he had been identified from its inception, and to which he had given \$20,000 for the library.

Kahnweiler, David, inventor, born in Rockenhausen, Bavaria, in 1826; died in New York city, Nov. 5, 1898. He emigrated to the United States in 1847; made a fortune in dry goods in Wilmington, N. C., which he lost during the civil war, and came to New York city, where he invented a machine for milling, which brought him a second fortune. He experimented with the floating properties of ground cork, and finally invented the cork-jacket life preserver. Mr. Kahnweiler also constructed a metallic life raft and patented a cash-carrier system.

Kavanagh, John, painter, born in Prescott, Canada, in 1858; died in Cleveland, Ohio, Feb. 8, 1898. He accompanied his parents to Cleveland in early childhood and received his first ideas of art in the studio of a photographer. For three years he spent the autumn and winter months in study at Cooper Institute, New York city, then for nearly three years he was in Munich, for one year at home, and for three years in Paris. In 1889, after visiting the picturesque regions and art centers of England and Scotland, he opened a studio in Cleveland. While in Munich he received honorable mention and a gold medal for his paintings, and in Paris his canvases were accepted for three consecutive exhibitions at the Salon, and at one exhibition he had the rare honor of having three paintings hung, for which he received a gold medal. His last notable exhibition was at the World's Columbian Exposition in Chicago in 1893.

Keely, John Ernest Worrell, impostor, born in Philadelphia, Pa., Sept. 3, 1837; died there, Nov. 18, 1898. His education was meager, and at an early age he was apprenticed to a carpenter, and he worked at his trade till 1872. During this time he became interested in music, and the tuning-fork, so he said, gave him his first hint of a new motive power that he claimed to have discovered. He spent years experimenting with the effect of sound vibrations on metals, and finally he made a machine that appeared to develop an enormous power. It did not need steam, compressed air, or electricity, but started at the sound of a violin bow. He displayed this machine, which became known as "the Keely Motor," before capitalists and scientists in 1874; and a stock company was formed and thousands of dollars were advanced to enable him to perfect his discovery and apply the principle. Between 1874 and 1891 Mr. Keely expended large sums in exper-

imenting, without any practical results. He constructed and discarded 129 different models. In the first of these he employed water as a generator, but later the experiments were made with what he called a "liberator," a machine equipped with a large number of tuning-forks, which, he claimed, disintegrated the air and released a powerful etheric force. In 1881 a wealthy Philadelphia woman built him a new laboratory and provided a weekly salary for him to continue his experiments. He gave exhibitions at various times before scientists and the stockholders of the Keely Motor Company, but at no time did he disclose the means by which he produced many remarkable effects. In 1888 he was for a time confined in jail for contempt of court in refusing to tell his secret, but till his death it was known only to himself. Then it was discovered that his machines were propelled by a compressed-air motor in the cellar, and that his whole scheme was a fraud. See "Annual Cyclopædia" for 1887, page 407, for a detailed description of his machines and his theories.

Keene, Thomas Wallace, actor, born on Staten Island, N. Y., Oct. 26, 1840; died in New York city, May 30, 1898. His real name was Eagleson, and he was a member of an old Staten Island family settled about Castleton Corners, where Mr. Keene made his home. At a very early age he attached himself to the Old Bowery Theater, New York, as a supernumerary. His first regular engagement was in the company of James H. Hackett, from which, after five weeks' service, he entered the stock company then maintained at Newark, N. J. The next season he was at John Brougham's Lyceum, New York city, and he then went to the stock company of the National Theater, in Cincinnati. In 1870 he began a four years' engagement at Wood's Museum, New York city (the same theater on Broadway that is now called Daly's). At this theater he was chiefly engaged in burlesque and melodramatic parts. During an interval between engagements at Wood's, Keene went to England and produced there the play of "Across the Continent." He reappeared at Wood's as Joe Morgan in "Ten Nights in a Bar-room," Jan. 18, 1871. In 1875 he was engaged as leading man of the California Theater, San Francisco, then under the management of John McCullough, who, having resolved to star, selected Mr. Keene to take his place at the head of the stock company. He became a favorite with the very critical audiences of this theater from his first appearance before them. When Edwin Booth visited California in 1876, after an absence of twenty years, he played a brilliant engagement of eight weeks at the California Theater, during which he was supported by Mr. McCullough and Mr. Keene in the principal subordinate rôles. In the alternation of the parts of Mark Antony and Cassius in "Julius Cæsar" Mr. Keene fairly shared the enthusiastic plaudits of the public with his illustrious comrade, and this artistic triumph brought him before the American public as a star. He was engaged in 1879 by Eugene Tompkins, manager of the Boston Theater, for the part of Couplan in "Drink," an adaptation of Zola's "L'Assomoir," and it is said that his representation of the reckless inebriate was vivid and startling. In 1881 he made an engagement with W. R. Hayden for the performance of Shakespearean characters under the business direction of Mr. Hayden for several years. The devices of pictorial advertising liberally resorted to attracted much attention to this venture, and, coupled with the actor's ability, quickly established it as a financial success. Mr. Keene was particularly fortunate in such parts as Richard III, Cassius, Iago, Othello, Louis XI, and Richelieu, and for seventeen years he was generally regarded as one of the best American

actors. In private life he was a genial and affectionate friend, a sympathetic comrade, and a gentle and devoted husband and father. He suffered a stroke of partial paralysis in 1885, which obliged him to retire from the stage for two years; and though he eventually resumed his work, and often played with his old fire and enthusiasm, he never fully recovered his natural buoyancy. His death resulted from the failure of an overworked constitution to resist the shock of an operation for appendicitis. His last appearance was in the character of Richelieu at Hamilton, Ontario, May 23, 1898.

Kirkland, William A., naval officer, born in North Carolina, July 3, 1836; died in Mare Island Navy Yard, Cal., Aug. 12, 1898. He was appointed a midshipman in the United States navy July 2, 1850; was promoted passed midshipman, June 20, 1856; master, Jan. 22, 1858; lieutenant, March 18 following; lieutenant commander, July, 1862; commander, March 2, 1869; captain, April 1, 1880; commodore, June 27, 1893; and rear admiral, March 1, 1895; and was retired July 3, 1898. His early service was in connection with the Pacific and Brazilian squadrons, and in the first years of the civil war he was on duty at the China station and with the East India squadron. In 1864-'65 he commanded the ironclad "Winnibago," of the Western Gulf blockading squadron, and served under Rear-Admiral Thatcher in the combined movements of the military and naval forces against the defenses of Mobile, which resulted in the capture of that place and the surrender of the Confederate fleet. From 1866 till 1882 he commanded several vessels in the South Atlantic squadron, and from 1883 till 1886 was attached to the navy yards at Norfolk and Brooklyn. He was supervisor of the harbor of New York in 1889-'91; then became commandant of the League Island Navy Yard, at Philadelphia; and, after his promotion to rear admiral, commanded the European squadron till October, 1895, when he was detached and ordered home. His sudden recall created a sensation in naval circles. In the preceding January, after M. Félix Faure had been elected President of the republic of France, Admiral Kirkland sent him a letter of congratulation, and this act brought upon him a reprimand by the Secretary of the Navy, who held that the position of Admiral Kirkland precluded him from making any comment on French politics. The admiral resented the reprimand, claiming that his letter was a friendly, personal communication to a gentleman he had long known intimately. He appealed to President Cleveland from the act of Secretary Herbert, but the latter was sustained, and the admiral was recalled. On June 1, 1896, he was appointed commandant of the Mare Island Navy Yard, and after his formal retirement he was asked to retain the command till the close of the war with Spain.

Knapp, Arthur Mason, librarian, born in St. Johnsbury, Vt., Aug. 8, 1839; died in Boston, Mass., Dec. 28, 1898. He was graduated at Harvard in 1863, and after teaching several years in Phillips Andover Academy, in the Boston Latin School, and in the Brookline High School, he entered the service of the Boston Public Library in 1875, and filled the place of custodian of Bates Hall from 1878 until his death. In this capacity the extent and depth of his special knowledge in genealogy and local history, as well as his thorough acquaintance with Elizabethan literature, made him of the greatest service to hosts of readers and students, and the personal interest that he manifested in the hundreds of inquiries which came to him daily was felt as a most helpful stimulus to study and research.

Köhler, John, clergyman, was born in Juniata County, Pa., May 27, 1820; died in New Holland, Pa., April 11, 1898. He was graduated at Pennsyl-

vania College, Gettysburg, in 1842, studied theology there, and was ordained in 1844. He was pastor at Williamsport, Pa., 1845-'49; New Holland, 1850-'64; Trappe, 1864-'73; Stroudsburg, 1873-'82; principal of the academic department of Muhlenberg College, Allentown, 1882-'84; pastor at Mechanicsburg, 1884-'85, and at Leacock, 1885-'93. He was for many years a director of the Theological Seminary at Philadelphia, and a trustee of Muhlenberg College, Allentown. He held many offices in the ministerium of Pennsylvania, and was a regular contributor to the periodicals of the Church. His most important articles, especially those on the subject of the episcopacy in the Lutheran Church, were also published in pamphlet form.

Kramer, John Wesley, an Episcopal clergyman, born in Baltimore, Md., Jan. 5, 1832; died, Dec. 22, 1898. He was graduated at the Baltimore Medical College in 1850, subsequently became a Methodist clergyman, and was chaplain of the 1st Maryland Regiment during the civil war. He entered the Episcopal ministry in 1865, and for the last ten years of his life was rector of the Church of the Holy Spirit, Bath Beach, Brooklyn, N. Y. He was for several years general secretary of the Church Congress, was actively interested in social reforms, and was a coworker with Henry George in several directions. He published "Mindful of Him," "Manual for visiting the Poor," "Commentary on the Church Catechism," "The Right Road," and "Comfortable Thoughts."

Labaree, Elizabeth, missionary, died in New York city, April 15, 1898. In 1860 she went with her husband, Rev. Benjamin Labaree, as a missionary of the Presbyterian Church to Persia, and she remained there till her health failed in 1892. She was stationed at Oroomia, and worked among the Nestorians of western Persia and eastern Turkey. When Sheikh Obdullah, a Kurdish chief, besieged Oroomia, fifteen years ago, Mrs. Labaree, with other missionaries, saved the city from destruction. They had been kind to Obdullah, and easily prevailed upon him to postpone his attack till after the place had been put in condition to resist. She spent some time in Constantinople assisting her husband in translating the Bible into Syriac.

Labberton, Robert Van Hinderlophen, author and lecturer, born in Marseilles, France, April 6, 1813; died in New York city, Oct. 12, 1898. He was the son of Derrick Labberton, an educator, of Holland. In 1833 the late Commodore Conner, of the United States navy, having made the acquaintance of the Labberton family at their home in Gonda, Holland, induced Robert to come with him to Philadelphia and assume the tutorship of his children. Labberton had just been graduated at the University of Groningen, and was devotedly attached to classical and historical studies. He followed for many years in Philadelphia the occupation of tutor, and prepared many youth for college. With several of his charges he traveled extensively in Europe and Asia Minor. During the time of his private teaching he began giving occasional lectures on historical and literary subjects before scholastic and social assemblies in cities of the Eastern and Middle States. He continued his work until he had well passed his sixtieth year. About 1850 he was tendered the position of Professor of Greek in the University of Pennsylvania. He finally accepted this chair, and in great part gave up his private work, devoting himself for more than twenty years to the welfare of the university. While fulfilling the duties of his place he projected and published, in part, a work intended to be a universal history, graphically illustrated with colored charts showing the extent of each epoch of human empire upon the face of the globe. This system, perfected and en-

larged at a later date, is known as "Labberton's Historical Atlas," and is a standard work of reference. While at the University of Pennsylvania Prof. Labberton was employed by the Federal Government on a confidential mission to Russia in connection with the effort to insure the neutrality of European powers in the civil war. After the war he was offered the office of United States consul general in Japan, but declined it in favor of a professorship in Columbia University. His publications included "Outlines of History" (Philadelphia, 1870); "Historical Atlas" (New York, 1884); and "New Historical Atlas and General History" (London, 1887).

Lathrop, George Parsons, author; born near Honolulu, Hawaii, Aug. 25, 1851; died in New York city, April 19, 1898. He was the youngest son of Dr. George A. Lathrop, United States consul at Honolulu, distinguished for courage in the care of the natives during a severe epidemic of smallpox, and he was great-grandson of Major-Gen. S. Holden Lathrop, of Revolutionary fame, who succeeded Gen. Putnam in command. His father's mother was a descendant of Gen. Parsons of the Revolution. On his mother's side he was descended from an old Massachusetts family. He was educated in private schools in New York and in Dresden, Germany. At the age of twenty he began to support himself by writing, to which he applied himself with the energy and thoroughness of genius, without intermission, till the end of his life. His literary activity was ever ready to exert itself for the good of others and the highest objects of effort; his novels were begun with noble motives and finished without a flaw in tone or diction. His poetry is remarkable for liberty in form, with great sensibility for poetic richness of perception and beauty. His critical articles, on both art and literature, were always regarded as authoritative and eagerly sought for; his editorial work in the journalistic field was of the strongest quality, showing keen business acumen and a gift for clear argument that in his youth had led to his being placed in the law office of William M. Evarts. His life and work are characterized by a mingling of fervid gentleness, childlike reticence, and fearless expression of the truth in any question requiring championship. He published "A Study of Hawthorne"; "Afterglow"; "In the Distance"; "Rose and Roof-tree Poems"; "An Echo of Passion"; "Newport"; "Somebody Else"; "Spanish Vistas"; "Would You Kill Him?"; "Dreams and Days: Poems"; "Gold of Pleasure"; "Behind Time," for children; the "Libretto of the Scarlet Letter," a poem; "Columbus, the Christ Bearer, speaks," a poem written for the Columbian Celebration in New York; "A Story of Courage," the annals of the Visitation Order in America; "A Masque of Poets," an anonymous volume of poetry, edited by him, from the pens of well-known authors of the day; and "Gettysburg," a poem written at the request of the Grand Army of the Republic, to be read at the celebration of the battle of Gettysburg. He edited the standard edition of Nathaniel Hawthorne's works, with full introductory notes and a biographical sketch. He lectured upon literature in various parts of the country with eminent success, his charm of refined earnestness, and the intonations of a bell-like sweetness of voice, gaining the enthusiastic attention of his audiences. He was at different times assistant editor of the "Atlantic Monthly," under William D. Howells, editor in chief of the "Boston Courier," and editor of the "Providence Visitor." He was one of the chief workers in the establishment of the Catholic Summer School of Plattsburg, holding places among the trustees, etc.; a mover in the establishment of international copyright, and one of the first support-

ers of the Paulist inauguration of the Apostolate of the Press. His intellect was unceasingly active, even under the heavy pressure of failing health, to which he was often subject, and his conscientious enthusiasm for any undertaking adopted by him for the public good prevented a moment's real rest or the enjoyment of that outdoor life which was his greatest delight. He was a member of the Papyrus Club, in Boston; of the Authors and the Players' Clubs, New York; of the Society of Connecticut Sons of the American Revolution; of the St. John's Literary Society, of New London; and one of the first honorary members of the John Boyle O'Reilly Reading Circle, of Boston. The doctor's degree was conferred upon him by St. John's College, Fordham, N. Y. He died after a brief illness, in the height of his literary power, having but a short time before written superlatively fine prose and poetry. He married the second daughter of Nathaniel Hawthorne, whose wife, meeting him not long before her death, was especially fond of him, and several times uttered his name with great affection in her last hours. He had one child, Francis Hawthorne Lathrop, whom he lost, and to whom he wrote one of his most spiritual and beautiful poems. There was the quality in him of a star shining steadily among dark, moving clouds.

Lee, James Fenner, lawyer, born in Providence, R. I.; died in Baltimore, Md., Jan. 31, 1898. He was educated in Switzerland and graduated at the College of Louis le Grande, Paris. He studied law at Harvard and was admitted to the Baltimore bar. He represented his county as State Senator in 1876 and 1878, in 1885 was appointed *chargé d'affaires* to Austria; and at the close of the Cleveland administration became chief clerk in the State Department. He was commissioned *chargé d'affaires* at Rio when the republic of Brazil was organized. In collaboration with J. I. Cohen he compiled the third volume of a digest of the decisions of the Court of Appeals of Maryland.

Leighton, Scott, painter, born in Auburn, Me.; died in Waverly, Mass., Jan. 17, 1898. He received a public-school education, spent most of his time in drawing pictures of animals, and when only fourteen years old became a dealer in horses. He followed this business three years, and then removed to Portland, determined to make his living by painting portraits of horses and pet animals. Discouraged by the small pecuniary results, he engaged in the fancy-furniture trade in Providence for a while, then became a traveling artist, and ultimately settled in Boston, where he took a course of instruction in drawing and painting and afterward resided. He was a member of the Boston Art Club, the Paint and Clay Club, and other art and social organizations, and was frequently referred to as the Landseer of the United States. Among his best-known productions, many of which have been reproduced in photograph and engraving, are "Here they Come," considered by many his masterpiece; "In the Stable"; "On the Road"; "Three Veterans"; "Smuggler"; "The Pet"; "Waiting"; "Dogs"; and "The Fearnought Stallions."

Lincoln, Frederick W., politician, born in Boston, Mass., in 1817; died there, Sept. 13, 1898. He served in the Legislature of Massachusetts several terms, and was a member of the constitutional convention in 1852. He was engaged in banking and was a trustee of the Institute of Technology. He was Mayor of Boston for three terms, 1858-'60; and again for four terms, 1863-'66. During one of his later terms he prevented a draft riot by the prompt use of the military.

Lintner, Joseph Albert, entomologist, born in Schoharie, N. Y., Feb. 8, 1822; died in Rome, Italy, May 5, 1898. He was engaged in business in New

York city from 1837 till 1848, and in Schoharie from 1848 till 1860; and was then interested in the manufacture of woolen goods in Utica, N. Y., till 1867. From early youth he had been fascinated with the study and collection of insects, and during the greater part of his business life he applied all his leisure to that science. In 1867 he was appointed zoölogical assistant in the New York State Museum of Natural History in Albany, and he held the office for twelve years, when he was called to the presidency of the Department of Natural Science in Albany Institute. In 1880 he was appointed State Entomologist, and in 1881 he was reappointed under an act of the Legislature establishing the office permanently. He was placed on the scientific staff of the State Museum in 1883 and received the honorary degree of Ph. D. from the regents of the University of the State of New York in 1884. Prof. Lintner was president for two years of the Entomological Club of the American Association for the Advancement of Science. A few weeks before his death he received a six months' leave of absence to enable him to make a long-anticipated visit to the Old World. His publications on economic entomology were voluminous and were extensively copied in both American and European scientific journals. They included "Report on the Injurious and Other Insects of the State of New York" (2 vols., 1883-'85) and "Report of the State Entomologist" (1888 *et seq.*). To Prof. Lintner is credited the discovery of the clover midges and the clover beetle, two insects that have wrought great damage in the agricultural regions of the State.

Love, William De Loss, clergyman, born in Barre, N. Y., Sept. 29, 1819; died in St. Paul, Minn., Sept. 6, 1898. He was graduated at Hamilton College in 1843; studied theology at Andover Seminary one year and at Yale two years; and April 5, 1848, was ordained pastor of Howe Street Church, New Haven. In 1852 he was called to the Eastern Congregational Church, New York city; in 1853 was installed pastor of the Second Congregational Church, Berlin, Conn., and four years later was called to the Grand Avenue Church, Milwaukee, Wis. After spending thirteen years there he held the pastorate of the First Congregational Church, East Saginaw, Mich., for five years. The First Congregational Church at South Hadley, Mass., where his service lasted eleven years, was his last charge. He was one of the early abolitionists; served on the United States Christian Commission; and was the author of many articles on the slavery question. He published "The Child's Book of Slavery" and "The History of Wisconsin in the War of the Rebellion" (1867).

Lowe, William Warren, military officer, born in Indiana, Oct. 12, 1831; died in Omaha, Neb., May 18, 1898. He was graduated at the United States Military Academy, and appointed a brevet 2d lieutenant in the 2d Dragoons, in 1853; was promoted 2d lieutenant in the 1st Dragoons, Oct. 22, 1854; transferred to the 2d Cavalry, March 3, 1855; promoted 1st lieutenant, Dec. 1, 1856; captain, May 9, 1861; and major, July 31, 1866; and resigned, June 22, 1869. In the volunteer service he was brevetted major and lieutenant colonel, Oct. 9 and Dec. 15, 1863, respectively, and colonel and brigadier general, March 13, 1865. His early military life was spent in scouting and frontier duty. In the civil war he served through the Manassas campaign; organized and became colonel of the 5th Iowa Cavalry; took part in the Tennessee campaign and the capture of Fort Donelson; commanded at times a brigade and a division in cavalry operations in Tennessee, Alabama, and Georgia; and twice was in command of the 3d Division of cavalry. During the last half of 1864 he was on duty at Nashville, remounting cav-

alry, and then till his resignation was chief mustering and disbursing officer for Kansas, Nebraska, Dakota, and Colorado. On leaving the army he settled in Omaha, and till his death was engaged in smelting and refining ores, mining, and railroad construction.

Ludlow, Benjamin C., military officer, born in Ludlow Station, Ohio, in 1831; died in Los Angeles, Cal., Jan. 10, 1898. He was graduated at the medical department of the University of Pennsylvania in 1854, and practiced till the beginning of the civil war. In 1861 he raised a company of cavalry, and tendered its services to Gen. Scott, who declined it on the ground that no cavalry would be required in the war, and that the four regular regiments would be sufficient for any emergency. Soon afterward Ludlow went to St. Louis, and was appointed a captain in Frémont's Hussars. In this command he distinguished himself in important and dangerous duty. Subsequently he was ordered East, where he served on the staff of Gen. Hooker in the battle of Chancellorsville, and as inspector of artillery on that of Gen. Meade, taking part in the battles of Gettysburg, Mine Run, and Rappahannock. He was promoted major in 1862, and lieutenant colonel in 1863; in February, 1864, was appointed chief of cavalry under Gen. Butler; and later was placed in charge of the construction of the Dutch Gap Canal. In October, 1864, he was brevetted brigadier general for services at Dutch Gap and Spring Hill, and was detailed to command the defenses of James and York rivers. He resigned his commission in 1865.

MacArthur, Charles L., journalist, born in Fremont, N. H., Jan. 7, 1824; died in Troy, N. Y., Oct. 12, 1898. Early in life he learned the trade of a printer in Watertown, N. Y., and he was graduated at the Black River Institute of that place. About 1840 he established the "Carthaginian," in Carthage, N. Y. In 1843 he was sent with an expedition to the head waters of the Platte, to make a treaty with the Sioux Indians. Later in the same year he established the Milwaukee "Sentinel," the first daily paper in Wisconsin. In 1846 he became city editor of the New York "Sun." In 1847 he purchased the Troy "Budget." It was a Democratic organ, representing the Free-Soil wing of the party. When Lewis Cass was nominated for the presidency by the Democratic National Convention in 1848 the "Budget" was delayed in going to press till the news had been received, and when the news came Mr. MacArthur told the foreman to insert the name of John A. Dix for President. This action was the beginning of a widespread bolt from Cass. In 1859 he retired from the "Budget" to establish the "Arena," which he sold two years later in order to serve with the 2d Regiment of New York volunteers in the civil war. In 1864 he founded the "Sunday News," the first Sunday newspaper in the State outside of New York city. In the meantime the "Budget" had died as the result of its opposition to the war. He revived that paper in 1867, and published it till the day of his death. In 1882 he absorbed the Troy "Telegram" into the "Budget." He was a member of the State Senate in 1882-'83.

McCormick, Thomas Francis, jurist, born in Elizabeth, N. J., July 31, 1844; died there, Sept. 13, 1898. He was graduated in 1864 at St. John's College, Fordham, and later at Seton Hall College. In 1871 he was admitted to the bar; in 1878 was appointed law judge in the Union County courts, and in such capacity he served four successive terms of five years each.

McGovern, Thomas, clergyman, born in Swanliber, Cavan County, Ireland, in 1832; died in Harrisburg, Pa., July 25, 1898. He was brought to the United States in infancy by his parents; was graduated at Mount St. Mary's College, Emmittsburg,

Md., in 1859; completed his theological course at the seminary of St. Charles Borromeo, Overbrook; and was ordained to the priesthood of the Roman Catholic Church, Dec. 12, 1861. For more than twenty years he was rector of St. Joseph's Church, Danville, Pa. On Jan. 15, 1888, he was chosen bishop of Harrisburg, and he retained the office till his death. He was noted for his zealous labors, scholarly habits, and literary accomplishments.

McKean, Thomas, benefactor, born in Philadelphia, Pa., Nov. 28, 1842; died there, March 16, 1898. He was a son of Henry Pratt McKean and a great-grandson of Thomas McKean, one of the signers of the Declaration of Independence. He was graduated at the University of Pennsylvania in 1862, entered at once on a business career, and became an officer in numerous railroad and financial corporations. He had a fortune of several million dollars, was exceedingly liberal to educational and benevolent institutions, and was ever ready to promote worthy enterprises. His gifts to the University of Pennsylvania aggregated about \$300,000, the last of them being \$100,000, given in November, 1897, to aid in the erection of the new law school building.

McLane, Robert Milligan, diplomatist, born in Wilmington, Del., June 23, 1815; died in Paris, France, April 16, 1898. He was a son of Louis McLane, United States Senator and minister to England. Robert was educated at St. Mary's College, Baltimore, the College Bourbon, Paris, and the United States Military Academy, where he was graduated and assigned to the 1st Artillery in 1837. He served under Gen. Jesup in the Everglades of Florida in 1837-'38, under Gen. Scott in the Cherokee country of Georgia in 1838, and under Gen. Taylor in Florida; was engaged in the military survey of the Great Lakes, under a transfer to the corps of topographical engineers, in 1839-'40; and was sent to Europe to study the dike and drainage systems of Italy and Holland in 1841. Two years later he returned, resigned his commission in the army, and, having been admitted to the bar before going to Europe, began practicing law in Maryland. He was a conspicuous speaker in the presidential campaign of 1844, and was elected to Congress as a Democrat in 1844, 1846, and 1848, having been in the meantime an earnest supporter of President Polk's Mexican War policy. After the expiration of his third term in Congress he spent a year in practice in California. In 1852 he was one of the presidential electors of Maryland, and in the following year he was appointed by President Pierce United States commissioner to China with plenipotentiary functions, and at the same time was accredited to Japan, Siam, Korea, and Cochin-China. He reached Hong-Kong in the spring of 1854, had a strong naval force subject to his authority, and, accomplishing the object of his mission, was recalled at his own request, and arrived home early in 1856. Soon afterward he was a delegate to the National Democratic Convention that nominated James Buchanan. In 1859 he was appointed United States minister to Mexico, and while there he negotiated a treaty for the protection of American citizens. He resigned the mission directly after the secession of the cotton States and became a member of the legislative committee to confer with President Lincoln on some State grievances against



the Federal authorities. During the civil war he was counsel for the Western Pacific Railroad Company, and spent much time in New York, San Francisco, and Paris. In 1876 he was a delegate to the National Democratic Convention that nominated Samuel J. Tilden, and also a State Senator; in 1878 and 1880 he was again elected to Congress; in 1883 was elected Governor of Maryland; and in 1885-'89 was United States minister to France.

McReynolds, Andrew Thomas, soldier, born in Dungannon, Ireland, Dec. 25, 1806; died in Muskegon, Mich., Nov. 25, 1898. He came to the United States in 1830; lived for a time in Pittsburg, and, in 1833, removed to Detroit. In 1834 he served as major on the staff of Gen. Williams in the Toledo war, and was one of the organizers of the Brady Guards of Detroit. In 1838 he was elected alderman of Detroit; in 1839 was a delegate to the Whig National Convention at Harrisburg; and in 1840 was a representative in the Michigan Legislature. In the same year he was chosen the first captain of the Montgomery Guards, and he was also colonel of the 1st Michigan Militia from 1840 till 1851. From 1842 till 1845 he was Indian agent for Michigan, and in 1846-'47 was State Senator from Detroit. He was commissioned a captain in the 1st United States Dragoons in March, 1847, and served in the Mexican War under Gen. Scott. He was first president of the Detroit Board of Education in 1852; prosecuting attorney of Wayne County in 1853-'55; and candidate for circuit judge in 1857. He organized the first regiment of cavalry in the civil war (the Lincoln Cavalry), and was commissioned its colonel June 14, 1861. Subsequently he was in command of a brigade for two years, and of a division six months, and was honorably discharged Aug. 22, 1864. He removed to Grand Rapids in 1866, served as United States district attorney for western Michigan from 1866 till 1868, and was prosecuting attorney of Muskegon County from 1874 till 1876. Gen. McReynolds was for years president of the Michigan Mexican Veteran Association, and at one time was department commander, Department of Michigan, G. A. R.

Mallon, Isabel Allerdice (known as Bab and Ruth Ashmore), author, born in Baltimore, Md., July 13, 1857; died in New York city, Dec. 27, 1898. She was a member of the Sloan family of Harford County, Md., and at the age of sixteen married William T. Mallon, of Baltimore. With her husband she spent some years abroad, and at his death, obliged to support herself, she became a newspaper correspondent. In 1888 she began writing the "Bab" letters, which were widely copied and later were syndicated to various papers. She continued writing them till a few weeks before her final illness. Under the name of Ruth Ashmore she wrote a series of letters, entitled "Side Talks with Girls," for the "Ladies' Home Journal." A collection of these letters was published in book form in 1895. Just before her last illness she finished another book, "The Business Girl in Every Phase of Life" (1898).

Marcon, Jules, geologist, born in Salins, Jura, France, April 20, 1824; died in Cambridge, Mass., April 17, 1898. He was educated at the College of Besançon and that of St. Louis in Paris, and acquired a fondness for natural science while traveling in Switzerland for his health. Here he became acquainted with Jules Thurmann, whom later he assisted in the geological survey of the Jura mountains, and while engaged in this work he met the late Louis Agassiz. In 1846 he was appointed assistant in the mineralogical department of the Sorbonne, and also made a classification of fossils, and in 1847 was made traveling geologist for the Jardin des Plantes in Paris. Under the last commission

he first came to the United States, and accompanied Prof. Agassiz on his trip to the Lake Superior region in 1848. After six months of exploration he went to Cambridge, Mass., where he classified and sent to Paris a valuable collection of minerals. The year 1849 he spent in studying the geology of New Jersey, Pennsylvania, and Virginia, the Mammoth Cave, and the provinces of Canada. He returned to Europe in 1850, but was soon again settled in Cambridge. Entering the service of the United States in 1853, he was the first geologist that crossed the country, and made a section map of the thirty-fifth parallel from the Mississippi river to the Pacific Ocean. Impaired health led him to revisit Europe, and during 1855-'59 he was Professor of Geology in the Zurich Polytechnic School. In 1861 he returned to Cambridge, where he was associated with Prof. Agassiz in founding the Museum of Comparative Zoölogy, in which he took charge of the division of palæontology for three years. From 1864 till 1875, when he re-entered the service of the Government, he applied himself closely to scientific research. He remained in the Government service till within a few years of his death. Besides many scientific memoirs and papers on the Taconic system of New York, he published "Recherches géologiques sur la Jura Salinoise" (Paris, 1848); "Geological Map of the United States and British Provinces of North America" (2 vols., Boston, 1853); "Geology of North America" (Zurich, 1858); "Geological Map of the World" (Winterthur, 1861; 2d ed., Zurich, 1875); "Origin of the Name America" (Boston, 1875; Paris, 1887); "First Discoveries of California, and the Origin of its Name" (Washington, 1878); and "A Catalogue of Geological Maps of America" (Washington, 1884).

Marsland, Edward, engineer, born in New Castle, Westchester County, N. Y., Oct. 5, 1829; died in Sing Sing, N. Y., June 25, 1898. He entered the Allaire Iron Works, in New York city, as an apprentice in 1847, and four years afterward engaged with the Collins line of steamships, rising to the rank of first assistant engineer in a service of six and a half years. Early in 1858 he was selected as second engineer to go out on the Russian steam corvette "Japanese," which had been built by William H. Webb in New York. On arriving with the vessel at Nikolaefsk, on the Amoor river, he was asked to enter the service of the Russian Government, and was commissioned chief engineer of the "Japanese." Subsequently he was placed in charge of some complicated machinery at Nikolaefsk, and was promoted to the rank of fleet engineer of the Russian squadron in Chinese waters. In August, 1860, he resigned his Russian commission and was given hearty testimonials of his professional skill and personal character. On returning to New York he was appointed chief engineer of the Pacific Mail Steamship Company. In August, 1861, he offered his services to the United States Government, and was appointed first assistant engineer in the navy. He was assigned to the "Unadilla," the first gunboat placed in commission for the war. Impaired health caused his retirement from the navy after a service of three years, and he resumed connection with the Pacific Mail Steamship Company. Later he took the Italian frigate "Redon Luigi de Poetigallo" to Italy and the ironclad ram "Dunderberg," which the United States had sold to France, to Cherbourg. He then entered the United States Engineer Corps, prepared the plans and specifications of the dredge boat "General McAllister," superintended her construction in New York, and took her to New Orleans, where he spent two years in Mississippi jetty work. He resigned from the Engineer Corps to become superintending engineer of the Roach shipyard at Chester, Pa., where he

remained three years. After this service he was employed professionally in New York city.

Mason, Edwin C., military officer, born in Ohio, May 31, 1831; died in St. Paul, Minn., April 20, 1898. He was appointed a captain in the 17th United States Infantry from civil life, May 14, 1861; was transferred to the 35th Infantry, Sept. 21, 1866; and to the 20th Infantry, Oct. 14, 1869; was promoted major, 21st Infantry, Sept. 5, 1871; lieutenant colonel, 4th Infantry, May 19, 1881; and colonel, 3d Infantry, April 24, 1888; and was retired May 31, 1895. In the volunteer service he was appointed a captain in the 2d Ohio Infantry, April 29, 1861, and was commissioned colonel of the 7th Maine Infantry, Aug. 22, 1861, and of the 176th Ohio Infantry, Sept. 23, 1864. He was brevetted major, Dec. 13, 1862, for gallantry at Fredericksburg; lieutenant colonel, May 6, 1864, for the battle of the Wilderness; colonel, May 10 following, for Spottsylvania; brigadier general of volunteers, June 3, 1865, for faithful services during the war; and brigadier general United States army, Feb. 27, 1890, for services in action against the Indians in the lava beds, Cal., April 17, 1873, and at Clearwater, Idaho, July 11, 12, 1877.

Massett, Stephen, author and actor, born in London, England, in 1820; died in New York city, Aug. 23, 1898. He came to America in 1837 on a sailing vessel, and made his *début* as an actor in Buffalo, N. Y. In 1841 he was engaged for singing parts in the drama by the manager of the Charleston, S. C., Theater, where he quickly won popularity both as an actor and as a good ballad singer. His singing of "The Light of Other Days" and "Oh, would I were a Boy again" were especially admired. After one season in Charleston, where he had played under the name of Stephens, he was engaged for Mitchell's Olympic Theater, and made his first appearance, under the name of Mr. Raymond, as the count in the opera of "Amalie," Oct. 2, 1842. In the summer of 1843 he made a voyage to the Mediterranean, returning to Boston in 1844. The discovery of gold in California attracted him to that country, and in June, 1849, he arrived in San Francisco. Here he inaugurated his career as an entertainer by giving a concert in a schoolhouse, June 22, 1849, the first public entertainment ever given in the city. He had for sometime been engaged in writing humorous sketches for the press under the name of Jeems Pipes. He continued this work on the Pacific coast, and, having acquired some lots among the sand hills on the outskirts of the town, he built himself a shanty and gave his estate the name of Pipesville. He remained for several years on the Pacific coast, and made a small fortune by his amusing musical and humorous concerts. From California he made a tour of the world, going to Australia, India, and the Cape of Good Hope. He was well received in England, and made a great many friends in London. His wit and vivacious conversation made him a desirable acquisition to the best circles of literary and artistic life. He returned to the United States in the early '70's, and thenceforward made his home in New York, where he lived quietly in retirement. Even to his last days he continued his favorite work of song composition. He published his autobiography under the title "Drifting About" (New York, 1863).

Mather, Margaret, actress, born near Toronto, Canada, Oct. 21, 1859; died in Charlestown, W. Va., April 7, 1898. She was the daughter of a Scotch ship carpenter named John Finlayson, and took the name of her mother's family for professional use. Her childhood was passed in great poverty in Detroit, Mich., where her father and mother kept a sailor's boarding house, and where even as a

child she contributed to the meager income of the family by selling newspapers in the street. When twelve years old she attended a public school in New York city for a few months from the house of an elder sister. In 1877 she began to study for the stage, and filled an engagement with a traveling company under the name of Miss Bloomer. In 1878 she was engaged in the company supporting George Edgar, and made her first appearance therewith as Cordelia in "King Lear," in Providence, R. I., under the name of Margaret Mather. In June, 1881, she made the acquaintance of J. M. Hill, an enterprising manager, who, after witnessing her work, engaged her on a six-year contract, one of the conditions of which was that she was to retire from the stage and devote herself to study for a year at her manager's direction and expense. She spent that year in reading and preparation at the house of John Habberton, the author, near New York. On Aug. 28, 1882, Miss Mather made her *début* as a star under Mr. Hill's management as Juliet at McVicker's Theater, Chicago. Her success was rather the result of general curiosity than the effect of personal talents; it was some time before the crudeness of her methods became toned to smoothness of expression. After two seasons of touring, during which Miss Mather added Pauline in "The Lady of Lyons," Leah in "Leah the Forsaken," Juliana in "The Honeymoon," and Rosalind in "As You Like It," to her *repertoire*, Mr. Hill leased the Union Square Theater in New York city for the season of 1885-'86, and opened it on Oct. 13, 1885, with a sumptuous revival of "Romeo and Juliet," with Miss Mather as Juliet. The play was kept on the stage there seventeen weeks, at a loss of \$22,532.95 (according to Mr. Hill's subsequent testimony in court); but the investment was good, as the country for several seasons paid liberally to see what had infatuated New York—according to the advertisements. In January, 1886, Miss Mather played Leah at the Union Square, closing her engagement at that house in February with Juliana in "The Honeymoon." She then began a very profitable succession of engagements "on the road." On Feb. 15, 1887, in Buffalo, N. Y., she married Emil Haberkorn, a musician, leader of the orchestra at the Union Square Theater, in New York. She then continued her tours, sometimes under her husband's management, and again under that of others. On Jan. 1, 1889, she made her first appearance as Peg Woffington at Niblo's Garden, New York. The Columbus Theater, One Hundred and Twenty-fifth Street, New York, was opened by her Oct. 11, 1890, with a performance of "Romeo and Juliet." On Nov. 24, 1890, she first played Imogen in "Cymbeline" at the same house. An adaptation of Jules Barbier's "Jeanne d'Arc," which Bernhardt was then playing in Paris, was produced by her at the Fifth Avenue Theater, Dec. 8, 1890. Her performance of the heroic Joan did not satisfy the metropolitan taste, but she kept the play in her "road" *repertoire*. She married, on July 26, 1892, Gustave Pabst, son of a wealthy Milwaukee brewer, and on Dec. 10 of the same year retired from the stage to reside with her husband and his family in Milwaukee. She was divorced from Mr. Pabst in October, 1896, and in January, 1897, returned to the stage as Imogen in a fine production of "Cymbeline" at Wallack's Theater, New York. While playing that part, on the stage of the theater, she was stricken with her fatal illness.

Matthews, Claude, politician, born in Bethel, Ky., Dec. 14, 1845; died in Indianapolis, Ind., Aug. 28, 1898. He was graduated at Center College, Danville, Ky., in 1867, and in 1869 went to Vermilion County, Ind., where he devoted his time to farming and cattle raising. He organized the first

breeders' live-stock association formed in the United States. In 1876 he was elected to the Indiana Legislature on the Democratic ticket in a strong Republican county; in 1882 was a candidate for State Senator, but was defeated. In 1890, when the Farmers' Alliance was at the height of its prosperity, he was elected Secretary of State as the representative of the farming interest. In 1892 he was chosen Governor of Indiana. The coal miners struck soon after his inauguration, but he called out the State militia and subdued the rioting in a few days. A question arising as to the payment of the troops, he pledged his personal credit with the banks for \$41,000 in order to secure the money for the soldiers. He had a bitter fight with a corporation organized for the purpose of conducting winter races in Lake County, and won. Mr. Matthews was a Free-Silver Democrat, and had a large following when mentioned as a possible candidate for the presidency in 1896.

Maynard, John Parker, physician, born in Boston, Mass., in 1826; died in Dedham, Mass., Feb. 26, 1898. He was educated in the Boston Latin School and Yale College and was graduated at Harvard Medical School in 1848. After practicing for four years at Newton Lower Falls, he settled permanently in Dedham. Dr. Maynard claimed to have been the discoverer of collodion, a distinction likewise claimed by Josiah Curtis, M. D. Without going into the controversy, it may be said that in a communication addressed to Dr. John D. Fisher, of Boston, under date of March 18, 1848, which communication was read before the Boston Society for Medical Improvement nine days later, Dr. Maynard narrated the history of what he termed his discovery. He also detailed his method of applying liquid adhesive plasters, or ethereal solutions of prepared cotton, in dressing wounds and in surgical operations. The preparation afterward received the name of collodion. The discovery was regarded in medical circles as one of superior importance.

Meredith, Henry Clay, actor, born in Philadelphia, Pa., in 1830; died in New York, Feb. 28, 1898. He began life as a seaman in the United States navy. He enlisted at the outbreak of the civil war and continued in active service until its close with the exception of nine months, during which he was imprisoned at Andersonville. He first appeared on the stage as a supernumerary at the Boston Museum, and gave such evidence of ability that he was soon advanced to the playing of responsible parts. In 1880 he was leading man in support of Adèle Belgarde. He was the first dramatic representative of Copeau in "L'Asso-moir" in the United States when that play was produced at the Olympic Theater, New York city, in the autumn of 1880. His next triumph was in the part of Malvolio in an elaborate production of "Twelfth Night" made by Robson and Crane at the Fifth Avenue Theater, New York, in the autumn of 1881. He was thenceforth esteemed an excellent character actor. During the season of 1881-'82 he played the principal male rôles with Mme. Fanny Janauschek in "Brunhilde," "Medea," "Mother and Son," "Macbeth," "Mary Stuart," "Bleak House," and "Deborah." In the seasons that followed until 1889 Mr. Meredith traveled as a star, with his own company, playing a melodrama called "Ranch 10." After the popularity of this play was worn out he returned to the place of a leading man.

Merrill, Joseph, historian, born in Amesbury, Mass., in 1814; died there, Feb. 9, 1898. He was town clerk from 1844 till 1880. In 1844 he was the Democratic candidate for the Legislature in the three-cornered contest in which John Greenleaf

Whittier was the nominee on the Abolitionist ticket. He published "A History of Amesbury" (1881).

Mills, Sebastian Bach, pianist, born in Cirencester, England, March 13, 1838; died in Wiesbaden, Germany, Dec. 21, 1898. At the age of seven he appeared before Queen Victoria. He afterward attended the Leipsic Conservatory, where he received his musical education. He also was a pupil on the pianoforte of Bennett, Moscheles, and Liszt, and in harmony and composition of Hauptmann and Richter. In 1855 he was organist of the Roman Catholic cathedral at Sheffield. About 1857 he came to New York city. Since 1859 he had appeared as a concert pianist throughout the United States, and in 1859, 1867, and 1878 he made successful tours through Germany. In May, 1897, he went to Wiesbaden, and there established himself in his profession. He was a popular, though not prolific composer. Some of his best-known compositions are "Barcarolle vénétienne," op. 12; "Murmuring Fountain," op. 22; "Recollections of Home," op. 23; "Fairy Fingers," op. 24; "Toujours gai," polka, op. 25; "Rosebud Mazurka"; and "Fair Lillian."

Mitchell, Mrs. Zerviah Gould, Indian princess, born in Massachusetts in 1807; died in North Abington, Mass., March 6, 1898. She was a lineal descendant of Massasoit, representing the seventh generation, and was the sixth generation removed from King Philip. She was educated in Abington and Boston, was married when seventeen years old, and taught a private school in Boston for many years. When seventy-one years old she assisted Ebenezer W. Pierce in the compilation of a work on Indian history.

Mizner, John Kemp, soldier, born in Geneva, N. Y., March 2, 1837; died in Washington, D. C., Sept. 8, 1898. He was graduated at the United States Military Academy and entered the army as brevet 2d lieutenant in the 2d Dragoons, July 1, 1856; was promoted 2d lieutenant, Feb. 28, 1857; 1st lieutenant in the 2d Cavalry, May 9, 1861; captain, Nov. 12, 1861; major in the 4th Cavalry, Jan. 26th, 1869; lieutenant colonel in the 8th Cavalry, Jan. 9, 1886; colonel in the 10th Cavalry, April 15, 1890; brigadier general, May 26, 1897; and was retired June 7 following. In the volunteer service he was commissioned a colonel in the 3d Cavalry of Michigan, March 7, 1862; brevetted brigadier general of volunteers, March 13, 1865; and was mustered out of the service, Feb. 12, 1866. During the civil war he was assigned first to the defenses at Washington; later on he was engaged in the Mississippi campaign and in the siege of Corinth as chief of cavalry of the Army of the Mississippi under Gen. Rosecrans. He joined the army of Gen. Grant, took part in the campaign against Pemberton's troops, and was placed in command of the left wing of the 16th Army Corps under Gen. Oglesby. In the latter part of 1863 his brigade again served at Corinth. In 1864 his command became part of the 7th Army Corps, serving in Arkansas under Gen. Steele. Early in 1865 he was sent with his brigade to New Orleans to take part in the operations against Mobile. After the fall of Mobile the 3d Michigan Cavalry with other troops went under Gen. Merritt to San Antonio, Texas, where it took part in the demonstration along the border; Col. Mizner succeeded Gen. Custer in command of the central district of Texas, where he remained till his regiment was mustered out. In 1867, as captain in the 2d Cavalry, he served on the frontier, accompanying Gen. Dodge, chief engineer of the Union Pacific Railway. In 1888, as lieutenant colonel of the 8th Cavalry, he marched with his regiment from Fort Concho, Texas, to Fort Meade, Dak., a distance of 1,500 miles.

Moebius, Bernard, metallurgist, born in Hartha, Saxony, in 1852; died at sea in May, 1898. He studied chemistry and metallurgy under the best German teachers, and was engaged in mining in Germany, Austria, Spain, and Mexico before settling in the United States, of which he became a citizen. In 1884 he discovered a method of extracting gold and silver from their ores by electricity, which he perfected in 1895. The electrolytic process of parting and refining the precious metals, which bears his name, is now in use in the United States, Mexico, and Europe.

Morrill, Justin Smith, Senator, born in Strafford, Vt., April 14, 1810; died in Washington, D. C., Dec. 28, 1898. His early life was spent on his father's farm, and he was educated in the common schools and academies near his home. He engaged in mercantile pursuits till 1848, when he turned his attention to agriculture. Without seeking a nomination, he was unanimously named for the national House of Representatives in 1854, and on Dec. 3, 1855, began his long career in Congress. He was re-elected for the five succeeding terms, and was then transferred to the Senate as a Republican, taking his seat March 4, 1867. From that time his service was continuous, and he had the longest unbroken term in the history of the Senate. For this reason he was known as "the Father of the Senate." In 1855 he delivered a speech in the House of Representatives in opposition to the admission of Kansas as a slave State. He opposed the tariff bill pending in 1857 because it failed to care properly for the agricultural interests; and in 1861 he came into national prominence through the Morrill tariff, a measure prepared largely by his own labors. At that time he was the leading working member of the Committee on Ways and Means and chairman of the Sub-Committee on Tariff and Taxation. When he became Senator, in 1867, he was almost immediately made a member of the Committee on Finance, and a few years later its chairman, which place he held until his death. He also served on the Committee on Public Buildings and Grounds, Education and Labor, Census, and Revolutionary Claims, and on the Select Committee on Additional Accommodations for the Library of Congress. He took part in every important controversy over either tariffs or coinage, and his speeches against the re-monetization of silver are noted. His literary labors were confined almost entirely to the preparation of bills and reports to be submitted to Congress. He published one book, however, "The Self-consciousness of Noted Persons" (1898). Senator Morrill was for years a trustee of the University of Vermont and the Vermont State Agricultural Society, and he received the degree of LL. D. in 1874. He also received the degree of M. A. from Dartmouth College in 1857, and LL. D. from the University of Pennsylvania in 1884.

Morse, Elijah Adams, manufacturer, born in South Bend, Ind., May 25, 1841; died in Canton, Mass., June 5, 1898. He was of New England ancestry, and when eleven years old accompanied his father to Massachusetts. He was educated in the public schools of Massachusetts and at Onondaga (N. Y.) Academy, and engaged in manufacturing in Canton. In 1860 he enlisted in the 4th Massachusetts Volunteers as a private. He served three months under Gen. Butler in Virginia and a year under Gen. Banks in Louisiana, and was taken prisoner at the capture of Brashear City, La. On returning home he resumed manufacturing. In 1876 he was elected to the State House of Representatives; in 1877 to the Governor's Council; in 1886 and 1887 to the State Senate; and in 1888, 1890, 1892, and 1894 to Congress as a Republican. Both in the Legislature and in Congress he earnestly

advocated the cause of free public schools, restriction of immigration, additional naturalization requirements, and safeguards for the ballot. (See GIFTS AND BEQUESTS.)

Mueller, Louis, clergyman, born in Bavaria, Germany, March 23, 1819; died in Charleston, S. C., April 14, 1898. His father was a royal forester. The son received his preparatory training in the gymnasium of Zweibruecken, Bavaria, and in the University of Utrecht, Holland, where he became distinguished as a scholar. In 1842 he emigrated to New York and was licensed as a minister in the Lutheran Church. After serving congregations in New York and Brooklyn for six years, he was constrained by failing health to seek a milder climate and in February, 1848, he removed to Charleston, S. C., where he entered on his duties as pastor of the congregation which he served to the end of his life. He received the degree of D. D. from Newberry College, South Carolina. Dr. Mueller was a distinguished scholar, a critical master of the principles of music and art, and an eloquent speaker.

Mundweiler, Fenton, clergyman, born in Germany about 1828; died in St. Meinrad, Ind., Feb. 14, 1898. He was educated and became a Roman Catholic priest in his native country, came to the United States soon after his ordination, and was first assigned to missionary work among the Germans of Kentucky and Indiana. When the late Bishop Martin Marty (see "Annual Cyclopædia" for 1896) erected St. Meinrad's priory in Spencer County, Ind., in 1865, and was made its first superior. Father Mundweiler was one of several German and Swiss priests whom he gathered there. In 1870 St. Meinrad's was raised to the rank of an abbey, the priests connected with it were organized into the Helveto-American congregation, and Dr. Marty was appointed a mitred abbot. A few years later Dr. Marty resigned his office to engage in missionary work among the Sioux Indians, and Father Mundweiler was appointed his successor as abbot. The work that Dr. Marty had projected both for the abbey and for the theological seminary he had established in connection with it was earnestly taken up by his successor, and was carried forward till his death with large results.

Munger, Albert A., manufacturer, born in Chicago, Ill., in 1845; died in Mackinac, Mich., Aug. 27, 1898. The system of elevators known as the Munger-Wheeler system was begun by his father, and he himself continued to operate them till 1890. He was a patron of the Art Institute of Chicago, and his pictures, which were on exhibition there at the time of his death, were valued at \$300,000. One of them, "The Bathers," by Bougereau, which was Mr. Munger's favorite, cost \$28,000. Another well-known painting is "The Vidette," by Meissonier, which cost \$36,000. Munkacsy's "The Wrestler's Challenge" and Gérôme's "The Grief of the Pasha" are also in the collection, which by Mr. Munger's will was bequeathed to the Art Institute. (See GIFTS AND BEQUESTS.)

Nash, Stephen Payn, lawyer, born in Albany, N. Y., Aug. 26, 1821; died in Bernardsville, N. J., June 4, 1898. He was a descendant of Thomas Nash, one of the original settlers of New Haven, Conn., and was educated at the Albany Academy and the French College at Chambly, Canada. He studied law in Saratoga, and assisted Judge Cowen and Nicholas Hill in their work in the voluminous "Cowen and Hills Notes to Phillips's Evidence." He was admitted to the bar in January, 1843, and returned to Albany to become a partner of Mr. Hill, then State reporter, whom he assisted in the later volumes of his reports. Two years afterward he settled in New York city. During his long profes-

sional career he particularly distinguished himself in equity cases. He also became an expert on laws affecting religious corporations. Mr. Nash was a trustee of Columbia University and of the General Theological Seminary of the Protestant Episcopal Church, a former president of the New York Law Institute and of the Association of the Bar of New York city.

Neafie, Jacob G., manufacturer, born in Monmouth County, N. J., Dec. 25, 1815; died in Philadelphia, Pa., Jan. 16, 1898. In early life he went to New York city, where he acquired his education and business training. At the time of his death he was president of the Neafie and Levy Ship and Engine Building Company. Despite his age he continued to direct his extensive business till within a few days of his death. The firm operates a large plant on Delaware river, in Philadelphia, which was established in 1844 as the Penn Iron Works. During the Mexican War the firm built vessels for the Government, and during the civil war it constructed the engines for 120 naval vessels, some of them the largest in the service. (See GIFTS AND BEQUESTS.)

Newton, George Baxter, benefactor, born in West Hartford, Vt., Sept. 10, 1833; died in Tarrytown, N. Y., Feb. 11, 1898. In his infancy he was taken by his parents to Norwich, Vt., where he acquired his early education and began working. In 1851 he settled in Mauch Chunk, Pa., and engaged in coal mining. Two years afterward he removed to Philadelphia, and he continued in the anthracite coal business for thirty-six years, a large part of the time in association with the late Asa Packer. After retiring from business he established an elegant estate in Tarrytown. Among all the charitable and philanthropic objects of his aid his largest interest was in the Tarrytown Public Hospital, which he founded several years ago, and of which he was president. Every day he went to the hospital, visited each ward, and personally looked after the comfort of the inmates.

Northrop, Birdsey Grant, educator, born in Kent, Conn., July 18, 1817; died in Clinton, Conn., April 27, 1898. He was graduated at Yale in 1841, and at its divinity school four years later, and was ordained in the Congregational Church in Saxonville, Mass., in 1847. In 1857 he became agent of the Massachusetts State Board of Education, and in 1866 secretary of the Board of Education of Connecticut. While holding the last office he was intimately connected with the movement for furnishing an American education to Chinese and Japanese youth who were sent to the United States. When seventy-eight years old he went to Japan, where he was received with special honor and witnessed the outgrowth of his efforts. During the last years of his secretaryship he gave much time to village improvement and ornamental tree planting, and after his retirement from the office in 1882 he applied himself with enthusiasm to the promotion of these interests throughout the country. He originated and introduced the observance of Arbor Day in the schools, and was widely known as the "Father of Village Improvement Societies." In 1863-'64 he was a member of the Board of Visitors to the United States Military Academy; in 1864-'66 was president of the American Institute of Instruction; in 1866, president of the National Association of School Superintendents; and in 1873, president of the National Educational Association. It was also through his efforts that the late Daniel Hand, of Guilford, Conn., gave the American Missionary Association \$1,500,000 for the benefit of the freedmen. Williams College gave him the degree of LL. D. in 1872.

O'Brien, Veronica (Mother Hieronymo), born in Washington, D. C., April 19, 1819; died in Roches-

ter, N. Y., Jan. 30, 1898. She entered the order of the Sisters of Charity at Emmittsburg, Md., at the age of twenty-two. In 1843 she began mission work in Pittsburg, was later sent on a mission to Norfolk, W. Va., and went to Buffalo, N. Y., to care for victims of the ship fever in 1856. She went to Rochester, N. Y., in 1857 and opened a hospital in a two-room cottage, caring for many cases of typhoid fever. When the civil war began the quarters were enlarged, and 700 soldiers were there at a time, thousands in all receiving her care. From this grew the present St. Mary's Hospital, which was completed in 1865. Mother Hieronymo was sent on a mission to New Orleans in 1870, in 1871 returned to Rochester to Nazareth Convent, and soon afterward became Superior of St. Patrick's Orphan Girl's Asylum, where she remained till June, 1873. With the help of generous friends she established in that city a Home of Industry for young girls, where they might learn housework and receive a good Catholic education, and through her efforts a well-appointed building was erected for this purpose in 1888. Here she established an employment bureau, where no fee was charged those applying for situations, and all who were sent out had received careful training. Many young women working in the city whose homes were out of town boarded at the home, where their welfare and their pleasures were alike looked after. Mother Hieronymo was widely known and beloved by those of every creed. It was said that her only fault was that she gave credence to any who told of misery or want. A large company of those who had received benefits or admired her disinterested philanthropy assembled at her funeral.

Osborn, Thomas A., diplomatist, born in Meadville, Pa., Oct. 26, 1836; died there, Feb. 4, 1893. He received a common-school education, learned the printer's trade, studied law, and was admitted to the bar at Pontiac, Mich., in 1857. Removing to Topeka, Kan., to practice, he was elected attorney of Doniphan County in 1858, State Senator in 1859, President of the Senate and Lieutenant Governor of the State in 1862, and Governor in 1872 and 1874. He was also United States Marshal in 1864-'66. In May, 1877, he was appointed United States minister to Chili, where he served four years and conducted important negotiations between various South American governments. On the expiration of his term he was appointed minister to Brazil, and he served there another four years. For special services to the empire, he received from the Emperor the highest honor that could be conferred on a foreigner, the Grand Cross of the Order of the Rose.

Packard, Silas Sadler, educator, born in Cummington, Mass., April 28, 1826; died in New York city, Oct. 10, 1898. In 1838 he removed with his father to Ohio, and at the age of twelve he began to teach, first in Ohio and then in Kentucky. A part of his work was the painting of portraits. In 1848-'51 he was a teacher of penmanship in Cincinnati. He taught writing, bookkeeping, and drawing in Lockport, N. Y., in 1851-'53. In the latter year he founded the "Niagara River Pilot," in Tonawanda, N. Y., and conducted it till 1856, when he became associated with the business college of Bryant & Stratton in Buffalo. After a brief engagement in Chicago he began his work in New York city in 1858, by establishing a business college in connection with Bryant & Stratton. In 1859-'60 he prepared a series of text-books on bookkeeping, which were considered standard works. More recently he published "The Packard Manual of Bookkeeping and Correspondence" and "The Packard Arithmetic." His scheme of instruction was copied by the business schools in Paris, Rouen, and Antwerp.

In 1868-'70 he published "Packard's Monthly," in which appeared the famous article entitled "The Wickedest Man in New York." In 1893 he was president of the Congress of Business Education at the World's Fair in Chicago. Mr. Packard was a ready and entertaining public speaker.

Parker, Jennie (Mrs. MARY JANE PARKER CHAMPNEY) actress, born in Athens, N. Y., in 1836; died in Philadelphia, Pa., Dec. 2, 1898. She was one of the most versatile actresses of the United States during a long career—as a member of stock companies and as a star. Equally admirable in tragedy and comedy, she was for many years a great favorite in the Western States and in California. Her first appearance on the stage was at the old Eagle Street Theater in Buffalo, as Duke of York in "Richard III." with the elder Booth as Gloster, in 1845. She then became a member of the Eagle Street Theater stock company, and for five years served an arduous apprenticeship, during which she rose to a leading place. She married in 1853 Frederick M. Kent, a popular actor, with whom she went to California and engaged successfully in joint starring performances for several years in San Francisco, Sacramento, and the mining towns of the Sierras. Mr. Kent died on Dec. 24, 1857, and his widow continued to play as a leading representative of the full round of standard dramatic heroines until 1863, when she married Mr. Champney and retired from the stage. Her last marriage was unfortunate, and, a modest fortune acquired by her ability as an actress having been dissipated, she separated from her husband and endeavored to resume her calling. After playing for a few years as leading woman in Boston, Albany, and Philadelphia, she retired to the Forrest Home near Philadelphia, where she remained until her death.

Parsloe, Charles Thomas, actor, born in New York city, Oct. 1, 1836; died there, Jan. 22, 1898. He was the son of an elder Charles Thomas Parsloe, an English actor, who came to the United States in 1829. The youngest Parsloe became a call boy at Burton's Chambers Street Theater in 1850. After a time he was intrusted with small parts and acquired a reputation as an actor of ability. He went in 1857 to Wallack's Theater, in Broadway near Broome Street, and here he became popular as a comic dancer and pantomimist as well as an eccentric comedian. After some years of service in the stock companies at Wallack's and the Union Square Theaters he shared the honors of the success of Bartley Campbell's play "My Partner" at the latter playhouse, Sept. 16, 1879. His representation of a good-natured California Chinaman, "Wing Lee," a character strange to metropolitan audiences, was a positive element in the favor with which the play was accepted. A business association between Louis Aldrich and Mr. Parsloe resulted, and "My Partner" was played by them for many years in the principal theaters of the United States and Canada with great financial and artistic profit. Mr. Parsloe and Mr. Aldridge always played their original parts in the drama, the former the Chinaman and the latter Joe Saunders, the heroic miner. Mr. Parsloe retired from the stage about six years before his death.

Parvin, Theophilus, physician, born in Buenos Ayres, Argentine Republic, Jan. 9, 1829; died in Philadelphia, Pa., Jan. 29, 1898. He was graduated at the University of Indiana in 1847, and at the medical department of the University of Pennsylvania in 1852, and settled in Indianapolis, Ind., to practice. In 1864-'69 he held a professorship in the Ohio Medical College; in 1869-'72 in the medical department of the University of Louisville; and in 1872-'83 that of Obstetrics and Diseases of Women and Children in the Indiana Medical College.

From 1888 till his death he held the chair similar to the last in Jefferson Medical College, Philadelphia. He was president of the Indiana State Medical Society in 1861, and of the American Medical Association in 1879. Dr. Parvin was a high authority on his specialties and his technical works. An original treatise on "The Science and Art of Obstetrics" (Philadelphia, 1886) and an edition of "Winchel on Diseases of Women" (1887) were cordially received.

Peet, Isaac Lewis, educator, born in Hartford, Conn., Dec. 4, 1824; died in New York city, Dec. 27, 1898. He was graduated at Yale in 1845, and at once entered upon his life work as an instructor of the deaf and dumb. In 1867 his father retired from the principalship of the New York Institute after a service of thirty-six years, and the son, succeeding him, served for twenty-five years, when he was retired with the title of principal emeritus. He was graduated at Union Theological Seminary in 1849, but was never ordained. Columbia College conferred the degree of LL. D. upon him in 1872. He was a member of, and held office in, many societies connected with his work. In 1886 his inaugural address as president of the Medico-Legal Society of New York on "The Psychical Status and Criminal Responsibility of the Uneducated Deaf and Dumb" attracted much attention. He was a prolific writer on subjects relating to his special work. His chief works were "A Monograph on Decimal Fractions"; "Language Lessons for the Deaf and Dumb"; and "A Manual of Vegetable Physiology."

Pepper, William, physician, born in Philadelphia, Pa., Aug. 21, 1843; died in Pleasanton, Cal., July 28, 1898. He was the second son of William Pepper, M. D., for several years professor in the University of Pennsylvania, and was graduated at the collegiate department of that institution in 1862, and at the medical in 1864. In 1868 he was chosen lecturer on morbid anatomy in the university, and in 1870 lecturer on clinical medicine. From 1876 till 1887 he was Professor of Clinical Medicine, and he then succeeded Dr. Alfred Stillé as Professor of the Theory and Practice of Medicine. In 1881 he was elected provost of the university, and he held the office till 1894, when, on resigning, he presented the university with \$50,000. During his administration as provost the number of professors and instructors increased from 88 to 268, and of students from 981 to 2,180; the amount of land belonging to the institution, from 15 to 52 acres; and the value of grounds, buildings, and endowments, from \$1,600,000 to more than \$5,000,000. The Wharton School of Finance and Economy, the School of Philosophy, the School of Biology, the School of American History, and the departments of veterinary medicine, archaeology and palæontology, and hygiene were added during this period. Dr. Pepper was also chiefly instrumental in securing the establishment of the University Hospital, on a site given by the city at his solicitation. His most important work in the development of the university was in the line of higher medical education. The extension of the course of study to four years was a result of his appeals to the trustees and friends of the institution and his personal pledge to give \$50,000 toward a permanent endowment of \$250,000 for the medical department and \$1,000 annually for five years toward a guarantee fund of \$20,000 per annum during that time. Dr. Pepper was medical director of the Centennial Exposition of 1876; was the founder of the "Philadelphia Medical Times," and its editor in 1870-'71; was largely instrumental in the founding of the Pennsylvania Museum and School of Industrial Art; was for many years a member of the Assay Commission of the United

States mint; and was president of the Association of American Physicians in 1891, and of the first Pan-American Medical Congress in Washington in 1893. He had an exceptionally large private practice, but found time to perform a large amount of literary and editorial work, the most important of which was the editing of the "Systems of Medicine by American Authors" (5 vols., Philadelphia, 1885-'86). His publications include "Trephining in Cerebral Disease" (1871); "Local Treatment of Pulmonary Cavities" (1874); "Sanitary Relations of Hospitals" (1875); "Higher Medical Education: The True Interest of the Public and the Profession" (1877); "Report of the Medical Department of the Centennial Exposition" (1877); "Catarrhal Irritation" (1881); "Epilepsy" (1883); "Phthisis in Pennsylvania" (1886); and "A Text-book of the Theory and Practice of Medicine" (1893).

Perry, William Stevens, clergyman, born in Providence, R. I., Jan. 22, 1832; died in Dubuque, Iowa, May 13, 1898. He was a nephew of Bishop Stevens of Pennsylvania and was graduated at Harvard in 1854. He took deacon's orders in the Episcopal Church in 1857 and priest's orders in 1858, and after serving as assistant in St. Paul's Church, Boston, from May to October, 1858, became rector of St. Luke's Church, Nashua, N. H., where he remained until April, 1861. He then assumed the rectorship of St. Stephen's Church, Portland, Me., which he held until November, 1863, and after serving for a year as an editor of the "Church Monthly" became rector of St. Michael's Church, Litchfield, Conn., remaining there until April, 1869. From 1869 to 1876 he was rector of Trinity Church, Geneva, N. Y., and while there was for two years Professor of History in Hobart College, and from April to September, 1876, president of that institution. On Sept. 10, 1876, he was consecrated Bishop of Iowa. He was widely known throughout the Anglican communion, and was the recipient of more honorary degrees than any bishop of the American Episcopal Church. He was much given to literary pursuits, and the number of his published works, edited and original, is very large. The principal ones include "Journals of the General Conventions of the Protestant Episcopal Church," with illustrative notes, with F. L. Hawks (Philadelphia, 1861); "Documentary History of the Protestant Episcopal Church," with F. L. Hawks (New York, 1863-'64); "Historical Collections of the American Colonial Church" (1871-'78); "Life Lessons from the Book of Proverbs" (New York, 1872); "Some Summer Days abroad" (Davenport, 1880); "The Church's Year" (Davenport, 1881); "The History of the American Episcopal Church, 1587-1883" (Boston, 1885); "General Ecclesiastical Constitution of the American Church" (1890); "The American Church and the American Constitution" (1895); "The Episcopate in America" (New York, 1895). Bishop Perry was secretary to the House of Deputies at the General Convention of 1868, and also at those of 1871 and 1874, and was historiographer of the American Church from 1868 until his death.

Peters, Augustus W., politician, born in St. John, N. B., in 1844; died in New York city, Dec. 29, 1898. He studied law in St. John till 1867, when he removed to New York and became a stock broker. In 1878 he was made chairman of the Consolidated Stock and Petroleum Exchange, which office he held till he was elected president of the Borough of Manhattan in 1897. He had served but one year out of the four at the time of his death. He was a prominent figure in Tammany Hall in the days of John Kelly, and for many years he was chairman of the General Committee of that organization.

Pillsbury, George Alfred, manufacturer, born in Concord, N. H., in 1816; died in Minneapolis,

Minn., July 17, 1898. His early life was passed in Concord and Warren, N. H. His son Charles first went to Minneapolis and engaged in milling. The success of the venture induced the father and two other sons to join Charles, and in 1872 the firm of Charles A. Pillsbury & Co. was formed. This in 1889 was merged into the Pillsbury-Washburn Flour Mills Company. The development of the business of the Pillsburys was coextensive with that of the industry that has made Minneapolis one of the largest markets for grain in the world. One of the mills of the firm is the largest of its kind in existence, having a capacity of 10,500 barrels a day, and the entire plant can turn out 17,500 barrels a day. Mr. Pillsbury was one of the most widely known men in the Northwest, and had extensive lumber and financial interests. All the family were noted for their public spirit and generosity, and the father's benefactions in his lifetime aggregated more than \$500,000. (See GIFTS AND BEQUESTS.)

Pillsbury, Parker, abolitionist, born in Hamilton, Mass., Sept. 22, 1809; died in Concord, N. H., July 7, 1898. When five years old he was taken to Henniker, N. H., where he grew up on his father's farm with only such education as the common schools afforded. After reaching his majority he worked for three years in Lynn, Mass., then returned to farm work, and in 1835 entered Gilman-ton Theological Seminary, where he was graduated three years later. He continued his studies for a year at Andover, and was then settled over the Congregational Church in New London, N. H. Within a year he was so stirred by the pleas of William Lloyd Garrison in advocacy of the abolition of slavery that he abandoned the ministry and joined the band of antislavery lecturers who traveled over New England and the West. Mr. Pillsbury was one of the most zealous and effective of the abolition orators, and represented the New Hampshire, Massachusetts, and American Antislavery Societies. He was sent to England in 1854 and delivered addresses in the principal cities. He was at times editor of the "Herald of Freedom," in Concord, and of the "National Antislavery Standard," New York. After the legal extinction of slavery he urged the continuance of the American Antislavery Society in behalf of the political elevation of the freedmen, and when this course was deemed inexpedient he engaged in the cause of woman suffrage. In 1868-'70 he was associated with Elizabeth Cady Stanton and Susan B. Anthony in editing "The Revolution" in New York, and when that publication was discontinued he became a preacher to free religious societies in several Western cities till advanced years forced him into retirement. His reminiscences of the antislavery cause and its leaders were published under the title of "Acts of the Antislavery Apostles" (Rochester, 1883).

Plaisted, Harris Merrill, lawyer, born in Jefferson, N. H., Nov. 2, 1828; died in Bangor, Me., Jan. 31, 1898. He was brought up on a farm, was graduated at Waterville College (now Colby University) in 1853, and in 1855 at the Albany Law School. The following year he was admitted to the bar and settled in Bangor to practice. On Oct. 30, 1861, he was commissioned lieutenant colonel of the 11th Maine Volunteers. He was promoted colonel May 12, 1862; took part in McClellan's Peninsula campaign; commanded a brigade before Charleston; served under Grant in the movements against Richmond and Petersburg, leading the "Iron Brigade"; and was brevetted brigadier general and major general of volunteers in February and March, 1865. After the war he returned to his practice in Bangor. In 1867-'68 he served in the Maine Legislature, in 1868 was a delegate to the National Re

publican Convention, and in 1873-'75 was Attorney-General of the State. While holding the last office he was elected to Congress as a Republican, to fill a vacancy. In 1878 he joined the national Greenback party, and in 1880 was elected Governor of Maine, through a fusion of the Greenback and Democratic parties, after a close and bitter fight. For several years after his retirement he was editor of "The New Age," in Augusta, Me.

Poland, John Scroggs, military officer, born in Princeton, Ind., Oct. 14, 1836; died in Asheville, N. C., Aug. 8, 1898. He was graduated at the United States Military Academy and appointed a 2d lieutenant in the 2d Infantry in May, 1861; was promoted 1st lieutenant the following month; captain, June 27, 1862; assigned to the 6th Infantry, July 14, 1869; major, 18th Infantry, Dec. 15, 1880; lieutenant colonel, 21st Infantry, March 1, 1886; colonel, 17th Infantry, Aug. 1, 1891; and brigadier general in May, 1898. He was brevetted major, Dec. 13, 1862, for gallant services in the battles of Antietam, Shepherdstown Ford, and Fredericksburg, and lieutenant colonel, May 3, 1863, for the battle of Chancellorsville. Gen. Poland served with the Army of the Potomac till after the battle of Gettysburg, and was then assigned to the defenses of Washington. In 1865-'69 he was Assistant Professor of Geography, History, Ethics, and Drawing at the United States Military Academy, and during the next ten years was principally employed on frontier duty. He was chief of the department of law at the United States Infantry and Cavalry School, in Leavenworth, Kan., in 1881-'86. At the beginning of the war with Spain he was commissioned a brigadier general, and at the time of his death was in command of the 2d division, 1st Army Corps, at Chickamauga Park, Ga. He contracted typhoid fever in the camp, and went to Asheville a few days before his death with the hope of recovery. Gen. Poland was author of "Digest of the Military Laws of the United States from 1861 to 1868" (Boston, 1868) and "The Conventions of Geneva of 1864 and 1868 and St. Petersburg International Commission" (Leavenworth, 1886).

Pool, Maria Louise, author, born in East Abington (now Rockland), Mass., in August, 1841; died there, May 19, 1898. She was educated in the public schools of her native town and prepared herself for teaching, but after a year of that employment she was obliged to give it up on account of her health. She spent several seasons in the South and among the Carolina mountains, where she found her inspiration for literary work. Her first writings comprised the "Ransome" letters in the "New York Tribune." Subsequently she made a specialty of depicting the life and character of New England, where almost all her life was passed. Her best-known works are "Dolly" and "Against Human Nature," both relating to life in the Carolina mountains, "A Vacation in a Buggy," Roweny in Boston, "Mrs. Keats Bradford," "The Two Salomes," "Katharine North," "Out of Step," "In the First Person," "In a Dyke Shanty," "Mrs. Gerald," and "Friendship and Folly" (1898).

Potts, Stacy Gardner, organist, born in Trenton, N. J., in 1858; died in Brooklyn, N. Y., April 11, 1898. He was graduated at the Columbia law school in 1879. After admission to the bar he practiced with his father till the latter's death, and then abandoned his profession for literature and music. From 1881 till his death he was continuously employed as organist and choir master in churches in New York and New Jersey, his last engagement being with the Church of the Epiphany, in Brooklyn. For several years before his death he was one of the editors and the musical critic of "The Churchman," the American correspondent of

"The London Musical Times," and a musical writer for "The Living Church" and other publications. He was a skillful director and performer, and composed several popular hymns.

Purvis, Robert, abolitionist, born in Charleston, S. C., Aug. 4, 1810; died in Philadelphia, Pa., April 15, 1898. He was a son of William Purvis, a successful cotton merchant of English birth in Charleston, by a free-born woman of Moorish descent. In 1817 the father, who had retired from business, sent the mother and their three sons to Philadelphia, expecting to settle permanently in England. On his own arrival, finding there was no school of a high grade for colored children, he established one on Spruce Street, and paid the teacher's salary for a year. The elder Purvis, who was a practical abolitionist even at that early day, died before completing arrangements to return to England, and Robert was educated in various schools in Pennsylvania and New England, finishing at Amherst College. He made his permanent home in Philadelphia. He first became interested in antislavery work in 1830 by making the acquaintance of Benjamin Lundy and William Lloyd Garrison, the latter having just been released from a Baltimore prison. In 1833 he was one of sixty persons who organized the American Antislavery Society in Philadelphia, of which he was vice-president for many years, and of which also he was the last survivor. He was also for a long time president of the Pennsylvania Antislavery Society, and was an organizer of the famous "underground railroad." His house was one of the best-known stations on this "road," and his horses, carriages, and personal attendance were always at the service of fugitive slaves. During the period 1833-'61 his life was frequently in peril, and on one occasion he and the gentle Whittier were mobbed together in Pennsylvania Hall. After the proclamation of emancipation he became first vice-president of the Woman's Suffrage Society, and in recent years he was active in the local movement for better municipal government.

Putnam, Mrs. Mary Traill Spence (Lowell), author, born in Boston, Dec. 3, 1810; died there in June, 1898. She was the daughter of the Rev. Charles Lowell and the elder sister of Hon. James Russell Lowell, and married Samuel R. Putnam, a Boston merchant, in 1832. She contributed occasionally to periodicals, and translated from the Swedish Fredrika Bremer's "The Handmaid" (1844). She was also the author of "Records of an Obscure Man" (1861); "The Tragedy of Errors" (1862); "The Tragedy of Success" (1862), the two last-named works being the two parts of a dramatic poem; "Memoir of William Lowell Putnam" (1863); "Fifteen Days" (1866); and "Memoir of Charles Lowell" (1885).

Quintard, Charles Todd, clergyman, born in Stamford, Conn., Dec. 22, 1824; died in Meridian, Ga., Feb. 15, 1898. He was a medical graduate of the University of the City of New York in 1847, and for a time practiced his profession in Athens, Ga. He was subsequently professor for several years in a medical college at Memphis, Tenn. He took deacon's orders in the Episcopal Church in 1855, and was admitted to the priesthood the next year. During 1857 he was rector of Calvary Church,



Memphis, and from 1858 to 1862 of the Church of the Advent at Nashville. From 1862 to 1865 he served as chaplain of the 18th Tennessee Regiment in the Confederate army, and on Oct. 11 of the latter year was consecrated Bishop of Tennessee, the ceremony being held in St. Luke's Church, Philadelphia. In 1866 he began the restoration of the University of the South at Sewanee, Tenn., which had been ruined by the civil war, and he was able by his untiring efforts to put it in a more flourishing condition than ever before. He was an "advanced" Churchman, but was not unduly aggressive, and under his care the Episcopal Church in Tennessee has grown and prospered.

Rains, George Washington, military officer, born in Craven County, N. C., in 1817; died in Newburg, N. Y., March 21, 1898. He was a brother of Gen. Gabriel J. Rains of the Confederate army, and was graduated at the United States Military Academy in 1842. He entered the army as a second lieutenant of engineers, but in the following year was transferred to the 4th United States Artillery. In 1844-'46 he was on duty at the Military Academy as Assistant Professor of Chemistry, Mineralogy, and Geology. During the Mexican War he served on the staffs of Gens. Scott and Pillow, and won the brevets of captain and major for gallantry at Contreras, Churubusco, and Chapultepec. In 1849-'50 he took part in the Seminole Indian War in Florida, and in 1856 he resigned his commission and engaged in the manufacture of iron at Newburg, N. Y. When the civil war broke out he offered his services to the Confederacy, and was commissioned a colonel in the Confederate army and assigned to the building and equipment of a powder mill at Augusta, Ga. He was in charge of these works through the war, and was promoted to brigadier general for his services there. Two years after the war he became Professor of Chemistry and Pharmacy in the medical department of the University of Georgia, and for many years was also dean of the faculty. Gen. Rains was interested in the construction of portable steam engines, and had obtained several patents for improvements thereon. Besides numerous essays, he published "Steam Portable Engines" (Newburg, 1860); "Rudimentary Course of Analytical and Applied Chemistry" (Augusta, 1872); "Chemical Qualitative Analysis" (New York, 1879); and "History of the Confederate Powder Works" (Augusta, 1882). In accordance with his wish, the Confederate flag which he took from the Augusta arsenal when he was about to evacuate that post, and which was the last garrison flag of the Confederacy, was buried with him.

Rasmussen, Peder A., clergyman, born in Stavanger, Norway, Jan. 9, 1829; died in Lanesboro, Minn., Aug. 15, 1898. He emigrated to America in 1850, and in 1851 settled in Lisbon, Ill. He taught school for a few years, and in 1853 the Norwegians who had settled in and around Lisbon called him as their pastor. He studied theology in the seminary at Fort Wayne, Ind., and in 1854 was ordained as a minister of the Lutheran Church. He was pastor at Lisbon forty-four years, was one of the founders of the Norwegian Theological Seminary at Northfield, Minn., and one of the leaders in the United Norwegian Church in America.

Rector, John Benjamin, jurist, born in Jackson County, Ala., Nov. 24, 1837; died in Austin, Texas, April 9, 1898. He accompanied his parents to Texas in 1847, was graduated at Yale in 1859, studied law, and settled in Austin. In the civil war he enlisted in Terry's Texas Rangers, with which he served till the close of the war. Resuming law practice at Bastrop, he was elected district attorney of the 2d Judicial District of Texas in 1866, but lost the office in the following year under the re-

construction Government. From 1871 till 1876 he was a judge of the State court in the same district, and from 1876 till 1892 engaged in private practice in Austin. In March, 1892, he was appointed judge of the United States Court for the Northern District of Texas, which office he held till his death.

Reeder, Howard J., jurist, born in Easton, Pa., in December, 1843; died there, Dec. 28, 1898. He was a son of Andrew H. Reeder, one of the Governors of Kansas during the antislavery struggle there, and was educated at Princeton College. While in the senior year he was appointed a lieutenant in the 1st Regular Infantry, and he served at Island No. 10, where he was wounded and obliged to give up the service. He recovered and became a captain in the 153d Pennsylvania Volunteers, taking part in the battles of Chancellorsville and Gettysburg. After the war he studied law at Harvard, and was admitted to the bar in 1867, taking up his practice in Easton. In 1881 he was appointed judge, and in 1884 was chosen judge of the Northampton Common Pleas. He was commissioned, under appointment by the Governor, judge of the Superior Court, June 28, 1895, and elected in the autumn for the term beginning Dec. 19, 1895.

Remenyi, Édonard, violinist, born in Heves, Hungary, in 1830; died in San Francisco, Cal., May 15, 1898. He was a pupil of Bohn at the Vienna Conservatory, began giving violin recitals in 1849, and traveled to all the principal cities in Europe and America. He was so successful in England that he was appointed solo violin to the Queen. In 1860 he was appointed court violin master to the Emperor of Austria. For several years before his death he was a resident of New York city. He died on the stage of the Orpheum Theater, in San Francisco, when about to begin a response to a recall after an enthusiastic reception given to the first number which he had played on his first appearance in a *vaudeville* performance.

Renier, Monsignor, Antonio, Count, bishop, born in Chioggia, Italy, Aug. 29, 1825; died in New York city, Dec. 11, 1898. He was educated at the University of Padua, where he received the degree of doctor of theology and philosophy. For a time he taught law and edited a newspaper in Florence. He was made secretary to Pope Pius IX, serving in that capacity nearly fifteen years, and received the title of bishop, but never was appointed to a see. After the death of Pope Pius IX he met with reverses, and in 1890 he came to the United States, very poor. He officiated nearly a year in a small church in the southern part of Texas with little success, and then came to New York, where he settled in the Italian quarter, and was beloved because of his modest labors and charities.

Richards, Dexter, benefactor, born in Newport, N. H., in 1810; died there, Aug. 7, 1898. He received a common-school education, and engaged in business with his father till 1853, when he acquired an interest in a flannel mill. He accumulated a large fortune in manufacturing and in financial and railroad enterprises. After holding nearly all the offices in the gift of the town, he served three terms in the lower house of the Legislature and two in the upper. He was a man of large benevolence, and among his gifts to the town were a handsome public library and a high-school building.

Richards, Matthias Henry, educator and author, born in Germantown, Pa., June 17, 1841; died in Allentown Pa., Dec. 12, 1898. His father was a distinguished theologian of the Lutheran Church. The son was graduated at Pennsylvania College, Gettysburg, Pa., in 1860, and became a teacher and a student of theology. On the invasion of Pennsylvania by Lee's army, 1863, he en-

listed "for the existing emergency" in the 26th Pennsylvania Militia, and shared all its campaign experiences until mustered out. He was ordained in 1864, and supplied various pulpits. In 1865 he became pastor of a congregation at South Easton, Pa., and in January, 1866, he took charge of a congregation at Greenwich, N. J., where he remained until November, 1867. In 1868 he was elected Professor of English and Latin in Muhlenberg College, and removed to Allentown. He held this chair until the spring of 1874, when he became pastor of a Lutheran congregation in Indianapolis, Ind., where he remained until January, 1877, when he was recalled to his former chair in Muhlenberg College. As professor, while nominally of the English language and literature, he taught, at one time or another, everything in the college course except the natural sciences. His place in college he retained until his death. Besides his college work he was connected with the schools of Allentown from 1879 as director, member of the Board of Control, and secretary of the board. He was editor of the "Church Lesson Leaves" and "The Helper," 1880-'96; editorial writer for "The Lutheran," 1884-'98; editor of the "Church Messenger" for several years; a regular contributor to the "Gettysburg Quarterly" and the "Lutheran Church Review"; and from 1896 was associate editor of "The Lutheran" and a contributor to the General Council's new series of Sunday-school publications. He was in demand as a lecturer, preacher, and teacher, especially at the Pennsylvania Chautauqua. In June, 1880, he received the degree of D. D. from Pennsylvania College.

Richmond, George Borden, inventor, born in Chardon, Ohio, in 1849; died in Lansing, Mich., Aug. 3, 1898. He was left an orphan in early life, and went to live with relatives in Watertown, Mich., where he worked on a farm till eighteen years old. Then he studied dentistry, and settled in North Lansing to practice. He was an earnest student, an accomplished chemist, and a genius in mechanics. His undisputed inventions included an electric motor. He claimed the invention of the telephone, and old residents of Lansing testified to his experiments and to the successful working of his device. On applying for a patent he was informed that one had just been granted to Alexander Graham Bell. He accumulated much evidence to substantiate his claims, but allowed them to go by default.

Roberts, Charles W., military officer, born in Oldtown, Me., in 1829; died in Bangor, Me., March 23, 1898. At the outbreak of the civil war he entered the national army as lieutenant colonel of the 2d Maine Volunteers, and was promoted to the command of the regiment. Subsequently he was brevetted brigadier general for meritorious conduct on the field. After the battle of Antietam, in September, 1862, he was forced by illness to take a furlough, but he retained command of his regiment till January, 1863, when his condition led him to resign. He was for a short time collector of the port of Bangor by appointment of President Johnson, but failed of confirmation by the Senate, and he held the office under confirmation from 1887 till 1891. In 1870 and 1875 he was the unsuccessful Democratic candidate for Governor of Maine.

Roberts, Joseph, soldier, born near Middletown, Del., Dec. 30, 1814; died in Philadelphia, Oct. 19, 1898. He was graduated at the United States Military Academy and entered the army as brevet 2d lieutenant in the 4th Artillery, July 1, 1835; promoted 2d lieutenant, June 10, 1836; 1st lieutenant, July 7, 1838; captain, Aug. 20, 1848; major, Sept. 3, 1861; lieutenant colonel, Aug. 11, 1863; colonel, Jan. 10, 1877; and was retired July 2, 1877. In the volunteer service he was commis-

sioned a colonel in the 3d Artillery of Pennsylvania, March 19, 1863; was brevetted brigadier general of volunteers, April 9, 1865; and mustered out of the service Nov. 13, 1865. He served at Fort Hamilton, N. Y., in 1835-'36; took part in the operations against the Creek Indians; and served in the Florida war of 1836-'37 as captain of a regiment of mounted volunteers. In 1838-'39 he was Assistant Professor of Natural and Experimental Philosophy at the Military Academy. He was again sent to Florida, and took part in the Indian war of 1849. In 1853 he commanded Fort Mifflin, in 1857 was transferred to Fort Leavenworth, Kan., and later assumed charge of Fort Monroe. He served through the civil war, was in command of Fort Monroe in 1861, in October of that year was made chief of artillery in the 7th Army Corps, and in 1863 was in charge of the 4th Artillery Corps. After the war he held the office of assistant inspector general of the department in Washington and superintendent of the Artillery School, at Fort Monroe. At the time of his retirement, in 1877, he was on duty at the Presidio, in San Francisco. He published "A Handbook of Artillery" (1860).

Robertson, William H., lawyer and politician, born in Bedford, N. Y., Oct. 10, 1823; died in Katonah, N. Y., Dec. 6, 1898. After preliminary studies in Union Academy, Bedford, he was admitted to the bar in 1847. He practiced in New York city a few years, beginning with 1861; but his life practice was in the adjoining county of Westchester, of which he served as county judge twelve years. Beginning life as a Whig, he afterward became a Republican, and was a delegate to numerous conventions of that party. Between 1848 and 1891 he was three times a member of the State Assembly and eight times a member of the State Senate, of which he was uniformly the chairman of the Judiciary Committee and often the president *pro tem*. He was chairman of the Military Committee of his senatorial district in 1862. In 1876 he was sent to Florida by President Grant to witness the count of the electoral vote. He was a Representative in the 40th Congress. Williams College conferred upon him the degree of LL. D. in 1876. Three incidents in his later life made him a most important factor in the politics of the United States. The first was in May, 1880, when, two months before the Republican National Convention, to which he was a delegate, he announced himself for Blaine as against Grant, thus breaking over the time-honored custom of the "unit rule" that required the votes of all the delegates from a State to be cast for one candidate. He thus became the leader in the movement that resulted in nominating Garfield. The second was in March, 1881, when President Garfield had nominated him for collector of customs of the port of New York. The State Senate, of which he was a member at the time, approved his nomination, but it was not approved by Roscoe Conkling and Thomas C. Platt, who were the United States Senators from New York, and who claimed the privilege of nominating appointees to Federal offices in that State. They thereupon resigned and appealed to the Legislature for a re-election. During the long struggle that followed President Garfield was assassinated. The Legislature refused to return the two Senators, and elected others in their places. Judge Robertson, in the meantime, had been confirmed by the United States Senate, and he held his office four years, ending in 1885. Upon his retirement his conduct of the office was commended even by men of other political parties. The third and most far-reaching incident arose out of a trivial proxy in the Republican State Convention of 1882. The delegates were

evenly balanced between the two candidates for Governor, Alonzo B. Cornell (for re-election) and Charles J. Folger, who was then Secretary of the Treasury under President Arthur. The Blaine men were for Cornell, the Arthur men for Folger, both sides looking to the presidential nomination in 1894. Robertson, who was a delegate to the convention, was for Cornell and Blaine. He was unable to attend, and an alleged proxy from him was voted upon and turned the scale in favor of Folger. After the convention had adjourned it was discovered that the proxy was a forgery. This so incensed the Cornell-Blaine voters that they stayed away from the polls in large numbers, and the election for that reason went to Grover Cleveland by the unprecedented majority of 193,000. When Mr. Blaine was a candidate for the presidency in 1884 he was opposed by enough of the Folger-Arthur men of 1882 to compass his defeat.

Robinson, Frank Torrey, art critic, born in Salem, Mass., July 16, 1845; died in Roxbury, Mass., June 3, 1898. He was educated in Harvard and Warren schools, Charlestown. In his sixteenth year he enlisted in the 5th Massachusetts Volunteers and he served in the North Carolina and Virginia campaigns. On his return from the war he followed various occupations, finally taking up news correspondence. He was local reporter for the Boston "Journal," Boston "Advertiser," and "Bunker Hill Times"; in 1875 began art criticisms; and from 1879 till 1883 was editor of the Boston "Sunday Times." For three years he was art director of the New England Manufacturers' Institute. Subsequently he became art critic for the Boston "Traveler," and later of the Boston "Post." He was editor of a periodical, "American Art," published in Boston between 1886 and 1888; contributed many articles to the "Art Interchange," of New York, under the pseudonym Torrey; and for years acted as literary curator of the Metropolitan Museum of Art, New York, where he edited catalogues and handbooks. He wrote "The History of the 5th Regiment, Massachusetts Volunteers." He also published "Quaint New England"; "Living New England Artists" (1806); "Christmas Morning" (1890); and "Winds of the Seasons" (1890).

Roche, John Alexander, clergyman, born in Stillpond, Md., Aug. 30, 1813; died in New York city, Feb. 15, 1898. He was ordained in the Methodist Episcopal Church in 1834, joining the Philadelphia Conference. Immediately after ordination he took the regular course in the Philadelphia College of Medicine, and afterward practiced for many years, but only to help the poor. His active ministry covered a period of more than sixty years, and extended over charges in Pennsylvania, Maryland, Virginia, Delaware, and New York. He was widely known in his denomination as a preacher, debater, and author, and, besides much work in biography and on themes connected with the doctrine, discipline, or usages of his denomination, he published "Life of the Rev. John Price Durbin, D. D." (New York, 1889) and "Life of Mrs. Sarah A. Lankford Palmer" (1898).

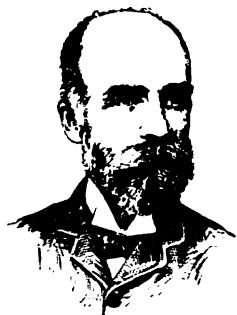
Rogers, William Augustus, physicist, born in Waterford, Conn., Nov. 13, 1832; died in Waterville, Me., March 1, 1898. He was graduated at Brown University with the degree of A. M. in 1857. A call to the mathematical department of Alfred University was promptly accepted, and in 1859 he was made full professor of that subject. In 1864 he enlisted in the United States navy, in which he remained until the autumn of 1865, when he resumed his duties at Alfred and engaged in the building and equipping of the university observatory. In 1866 he was appointed first professor in charge of the department of industrial mechanics.

In 1866-'67 he spent some time in the Sheffield Scientific School of Yale University, specially devoting his attention to those subjects that would fit him for the new appointment. Four years later he resigned his chair at Alfred and became assistant in the observatory of Harvard University, receiving in 1875 further recognition by his promotion to the assistant professorship in astronomy. In 1886 he was called to the chair of Physics and Astronomy in Colby University, Waterville, Me., where he continued until his death, although he had accepted the appointment of Professor of Physics at Alfred, to take effect from April 1. The physical laboratory of which he was to take charge was planned by him, and when the corner stone was laid, June 23, 1897, he delivered the dedicatory address. At Harvard University his special work consisted in observing and mapping all the stars, down to the ninth magnitude, in a narrow belt, a little north of our zenith. The observations on this work extended over a period of eleven years and required fifteen years for their reduction. His results were published in the "Annals of Harvard Observatory, as follow: "Observations made with Meridian Circle, 1871-1872"; "Observations of Fundamental Stars made with Meridian Circle, 1870-1886"; "Catalogue of 8,627 stars between 49° 50' and 50° 10' of North Declination, 1875"; "Discussion of Proper Motions of Zone Stars, 1879-1883"; "Journal of Zone Observations during the Years 1870-1875"; "Journal of Zone Observations during the Years 1875-1883." One of the earliest difficulties that he met with in his researches was the finding of micrometer spider webs that were suitable for his work. After numerous experiments he succeeded in etching glass with the moist fumes of hydrofluoric acid so satisfactorily that he received from the United States Government the order for the plates that were used by the expeditions sent out by this country to observe the transits of Venus. His study of this subject, extending over a quarter of a century, made him an authority in all that pertains to micrometrical work. The articles on "Measuring Machines" and "Ruling Machines" in "Johnson's Universal Cyclopædia" were written by him. He made a specialty of construction of comparators for the determination of differences in length, thus establishing useful working standards of measurement for practical mechanical work, which resulted in the Rogers-Bond Universal Comparator, built by the Pratt & Whitney Company, of Hartford, Conn., who were thus enabled to establish their system of standard gauges. In 1880 he visited Europe and obtained authorized copies of the English and French standards of length, which were used by him as the basis of comparison for bars which he constructed and ruled, and these are now the chief standards in the most important laboratories in the United States. His micrometer rulings, both on metal and on glass, are known to microscopists for their accuracy and for the character and beauty of the lines. Subsequent to his acceptance of a chair in Colby he began the study of certain mercurial thermometers, and by comparison with these he secured a standard for the measurement of very low temperatures. In connection with Prof. Edward W. Morley, he applied optical methods to the determination of minute changes of length, and later determined the coefficient of linear expansion of Jessop steel with a degree of precision never before attained. The degree of A. M. was conferred on him by Yale in 1880, that of Ph. D. by Alfred in 1886, and that of LL. D. by Brown in 1892. In 1873 he was elected a fellow of the American Academy of Arts and Sciences, and in 1880 he was elected a fellow of the Royal Microscopical Society of London, becoming

an honorary fellow a year later, and he was president of the American Microscopical Society in 1887. He was a vice-president of the American Association for the Advancement of Science in 1882-'83, presiding over the section on mathematics and astronomy, and delivered a retiring address in 1883 "On the German Survey of the Northern Heavens," and in 1894 he presided over the section on physics, delivering an address on "Obscure Heat as an Agent in the Expansion of Metals." He invented and manufactured various forms of apparatus, and was the author of nearly 70 published papers that related principally to his specialties.

Romero, Don Matias, diplomatist, born in Oaxaca, Mexico, Feb. 24, 1837; died in Washington, D. C., Dec. 30, 1898. He was educated at the Institute of Arts and Sciences in his native city. In 1853 he went to Mexico city, and entered the

Foreign Office. While employed there he studied law, and was admitted to the bar in 1857. When President Juarez was forced to leave Mexico, in 1857, Señor Romero accompanied him to Vera Cruz, where he continued in the service of the Department of Foreign Relations. In December, 1859, he was sent to Washington as secretary of the Mexican legation, and in August, 1860, was made *chargé*



d'affaires, remaining such till 1863. In that year he returned to Mexico and took part in the war against the French as colonel and chief of staff to Gen. Diaz. Soon after this he was sent to Washington as envoy extraordinary and minister plenipotentiary, remaining at this post from October, 1863, till January, 1868. From 1868 till 1872 he was Secretary of the Treasury in the Cabinet of President Juarez, retiring on account of failing health to devote himself to agriculture in Soconusco. In 1876 he became a Senator, from 1877 till 1878 he again served as Secretary of the Treasury under President Diaz, and in 1880 he was appointed Postmaster-General. In March, 1882, he was again sent as minister to the United States, and remained in that capacity till his death, with an interruption of ten months in 1892, when, for the third time, he was called to serve as Secretary of the Treasury. Señor Romero was a member of the International American Conference, and one of its two vice-presidents; in the conference he voted for the establishment of the Bureau of American Republics, and he was a member of the Executive Committee of the bureau when it was organized. He published more than fifty volumes, chiefly official reports. Some of his more important works are "Circulars and Other Publications made by the Mexican Legation at Washington during the French Intervention" (2 vols., Mexico, 1868); "Coffee Culture on the Southern Coast of Chiapas" (1875); "Correspondence of the Mexican Legation at Washington during the French Intervention" (9 vols., 1870-'85); "Historical Sketch of the Annexation of Chiapas and Soconusco to Mexico" (1877); "The State of Oaxaca" (Barcelona, 1886); "Coffee and India-Rubber Culture in Mexico" (1898); "Geographical and Statistical Notes on Mexico" (1898); and "Mexico and the United States" (1898).—His wife, **Lucretia Allen**, was born in Philadelphia, Pa., in 1851, and died in Atlantic City, N. J., July 29, 1898. She was the daughter of W. E. Allen, of Virginia, and was edu-

cated at the Convent of the Sacred Heart, Manhattanville, N. Y., and at the Chegory Institute, Philadelphia. In 1868 she married Señor Romero, whom she accompanied to Mexico, where she became proficient in the Spanish and French languages. She returned with her husband to Washington in 1882.

Rooker, Myron Holley, journalist, born in Lyons, N. Y., April 17, 1824; died in Albany, N. Y., July 19, 1898. He removed to Albany at an early age, and learned the trade of a printer. For two years he was editor of the "Evening Transcript." In 1839 he became night editor of the "New York Tribune," which place he held until the last year of the civil war. In 1864 he was made manager of the New York State Associated Press. Resigning this office in 1869, he was manager of the New York City Associated Press in Albany till 1881. In 1866 he went to San Francisco in the vain endeavor to combine all the newspapers into one association for collecting and distributing news. In 1870 he became part proprietor and associate editor of the Albany "Sunday Press," and his relations continued after the absorption of the "Knickerbocker" and throughout his life. He was a brother of Thomas N. Rooker.

Rooker, Thomas Newberry, journalist, born in Hudson, N. Y., Dec. 1, 1815; died in New York city, June 6, 1898. He moved, with his father, to Lyons, N. Y., at an early age, and for a short time he was a driver on the Erie Canal. He learned the trade of a printer in Albany and Troy. In 1841 he set type on the first number of the "New York Tribune," and three years later he became foreman, a place that he retained till 1877. He was secretary of the Tribune Association for many years, beginning with 1868. In 1897 he retired from active work, but so great was the appreciation of his services that the association voted to him half pay for the remainder of his life.

Roosevelt, Blanche (Marquise D'ALLIGRI), author and opera singer, born in Sandusky, Ohio, in 1856; died in London, England, Sept. 10, 1898. She was a daughter of W. A. Tucker, first United States Senator from Wisconsin, was educated in music in Italy, and made her *début* at Covent Garden, London, in the rôle of Violetta in "Traviata," under the name of Blanche Roosevelt, in 1876. In 1877 she was engaged for concerts in Milan, where she met and married Signor Macchetta, who subsequently became Marquis d'Alligri. In 1877, after a short engagement in Holland and Belgium, she retired from the stage and devoted herself to literary work. On Sept. 23, 1879, she reappeared as Josephine, in "Pinafore," at the Opéra Comique, London, and subsequently she came to the United States, where she sang the same rôle, as well as that of Mabel, in "The Pirates of Penzance." She wrote a libretto from Longfellow's "Masque of Pandora," and produced it, with music by Alfred Cellier, in Boston, in 1882. She then permanently relinquished the stage and became correspondent in London for several European and American journals. Her books are "Home Life of Henry Wadsworth Longfellow" (New York, 1882); "Marked 'In Haste'" (New York, 1883); "Stage Struck; or, She would be an Opera Singer" (New York, 1884); "Life and Reminiscences of Gustave Doré" (New York, 1885); "The Copper Queen," a novel (London, 1886); and "Verdi, Milan, and Otello" (London, 1887).

Rosecrans, William Starke, soldier, born in Kingston, Ohio, Sept. 6, 1819; died near Redondo, Cal., March 11, 1898. He was graduated at the United States Military Academy, and commissioned brevet 2d lieutenant in the Engineer Corps, July 1, 1842; promoted 2d lieutenant, April 3, 1843; resigned, April 1, 1854; appointed brigadier general,

May 16, 1861; resigned, March 28, 1867; reappointed brigadier general, Feb. 27, 1869; and was retired from the service March 2, 1889. In the volunteer service he was commissioned colonel of the 23d Ohio Infantry, June 12, 1861; honorably mustered out, June 16, 1861; appointed major general, March 21, 1862; and honorably mustered out of the service Jan. 15, 1866. After his graduation in 1842, he was employed in engineering work at Hampton



Roads for a year; returned to the Military Academy as instructor in engineering for a year, and as Assistant Professor of Natural and Experimental Philosophy for another year. For seven years he served as engineer in harbor and river improvements and at the Washington Navy Yard. He resigned in 1854, and established himself as an architect and civil engineer in Cincinnati; also becoming superintendent and president of the Cannel Coal Company, and later took charge of the Preston Coal Oil Company. He began his career in the civil war by organizing and drilling the home guard in Ohio; and in June, 1861, was placed in charge of Camp Chase. He was appointed colonel of the 23d Ohio volunteers, and soon afterward was promoted to brigadier general in the regular army. He was second in command to Gen. McClellan in the operations in West Virginia, and fought and won the action at Rich Mountain, July 11, 1861. He commanded the National forces at Carnifex Ferry, W. Va., Sept. 10, 1861, and then went into winter quarters at Wheeling. During the winter of 1861-62 Gen. Rosecrans was much in Washington. Having plans and opinions of his own for the prosecution of the war, he succeeded in obtaining hearings from both President Lincoln and Gen. McClellan, but his suggestions were not acted upon. In May, 1862, he commanded the right wing of the Army of the Mississippi under Gen. Halleck during the siege of Corinth; June 11, 1862, he was put in command of the Army of the Mississippi; and Sept. 19, 1862, fought the battle of Iuka. On Oct. 3, 1862, he successfully defended Corinth; defeated the Confederates under his classmate Gen. Van Dorn, and repelled them after two days of hard fighting. On Oct. 26, 1862, Gen. Rosecrans relieved Gen. Buell of the command of the Army of the Cumberland. He established bases and lines of communication, and organized inspector general's and topographical departments, and engineer and pioneer corps. On Oct. 30 he began his memorable march to Nashville, and Nov. 5 defeated a Confederate attack on that city; and on Dec. 31 the two days' fight at Stone River or Murfreesboro began, which resulted in the defeat of the Confederates under Gen. Bragg. By this time Fort Henry, Fort Donelson, and Clarksville had been added to Gen. Rosecrans's department, and he was in command of three army corps. During the spring of 1863 the army was busy with the advance on Tullahoma, which consisted of a series of intricate flank movements to dislodge the Confederates from the mountain passes; and the capture of Tullahoma, July 1, resulted from these operations. During the delay at Nashville and the subsequent movements Gen. Rosecrans had been steadily losing favor at Washington. He was urged forward daily, but protested that he was acting for the best, and stoutly defended his course. Eight months after he had received the thanks of Con-

gress military misfortune overtook him. On Sept. 19 and 20 the right wing of the army which he commanded was defeated at Chickamauga and forced back to Chattanooga, where it was besieged by Gen. Bragg. On Oct. 23, 1863, Rosecrans was superseded in command by Gen. Thomas, and three months later was assigned to the Department of Missouri, succeeding Gen. Schofield. He was deprived of his command without explanation, Dec. 9, 1864, and, retiring to Cincinnati, remained inactive till the close of the war. In 1865 he was offered and refused the Union nomination for Governor of Ohio; and he declined a similar Democratic nomination in 1869. He was appointed minister to Mexico July 27, 1868, and served nine months. From 1869 till 1881 he devoted himself to railway and industrial enterprises, mainly in Mexico. In 1871 he was made president of the San José Mining Company, and in 1878 became president of the Safety Powder Company of San Francisco. He was elected as a Democrat to the House of Representatives in 1880, re-elected in 1882, and served as chairman of the Committee on Military Affairs. In June, 1885, he was appointed Register of the Treasury, and he held the office till May 31, 1893. An act was passed in February, 1889, restoring him to the rank and pay of a brigadier general and placing him on the retired list of the army.

Ross, Lawrence Sullivan, military officer, born in Bentonsport, Iowa, Sept. 27, 1838; died in College Station, Texas, Jan. 4, 1898. His father was a noted Indian fighter, who removed his family to Waco, Texas, a few months after the son's birth. Lawrence was graduated at the University of Northern Alabama in 1858, and returned home just as a United States military force under Major Earl Van Dorn was about to set out on an expedition against the Comanche Indians. He hurriedly raised a company of friendly Indians, reported to Major Van Dorn for service, and in October of that year greatly distinguished himself in the battle of Wichita and also rescued a little white girl who had been an Indian captive from infancy. In 1859 he was commissioned by Gov. Houston a major in the State militia, and placed in command of the Texas Frontier Battalion, with which he did much toward breaking up the Comanche confederation. At the beginning of the civil war Major Ross resigned his commission and entered the Confederate army as a private, soon becoming major of the 6th Texas Cavalry, and in May, 1862, its colonel. For his skill in covering the retreat of Gen. Earl Van Dorn from Corinth, Miss., Col. Ross was promoted to brigadier general. He commanded the Texas cavalry in the Army of the West, and was credited with having participated in 135 actions of all kinds and having 7 horses killed under him, without receiving a scratch. His only wounds were received in his fights with Indians. After the war he engaged in farming, but soon became interested in politics. He was elected sheriff of McLennan County in 1873, member of the State Constitutional Convention in 1875, State Senator in 1881, and Governor of Texas in 1886 and 1888. At the time of his death he was president of the Texas Agricultural and Mechanical College.

Sage, George B., jurist, born in Erie, Pa., in 1828; died in Lebanon, Ohio, Nov. 19, 1898. He was graduated at Granville College (now Denison University) in 1849, and admitted to practice law at Frankfort, Ky., in 1852. In 1852 he was admitted in Ohio; in 1853 became a member of the law firm of King, Anderson & Sage, and so continued till 1857, when he entered into partnership with Thomas Corwin. The firm removed to Lebanon, Ohio, in 1858, where he practiced till Gov. Corwin's death, in December, 1865. He went back to Cincinnati in January, 1866, and, as a member of

the firm of Sage & Hinkle, practiced his profession till 1883, when he was appointed by President Arthur United States Judge for the Southern District of Ohio. He retired from the bench in August, 1898.

Salpointe, Jean Baptiste, clergyman, born in St. Maurice, Puy-du-Dome, France, Feb. 21, 1825; died in Tucson, Arizona, July 16, 1898. He studied the classics in the College of Clermont, and theology and philosophy in the Seminary of Clermont-Ferrand, and was ordained a Roman Catholic priest in 1851. After a service of eight years as curate and teacher he was sent to the missionary field in New Mexico. For seven years he was parish priest at Mora, and was then appointed vicar-general of Arizona. In 1869 he was promoted to the vicariate apostolic of Arizona, and consecrated as bishop of Doryla *in partibus*. The territory under his jurisdiction was both sparsely settled and extensive, comprising Arizona, New Mexico, and the contiguous part of Texas, but he undertook its management with much ardor. He organized many new congregations, founded schools and hospitals, and in less than sixteen years increased the number of church buildings from fewer than half a dozen to 23, and he had also built 15 chapels. In 1885 he was appointed coadjutor to Archbishop Lamy, of Santa Fé, whom he succeeded in 1888.

Scanlan, William James, author, actor, and singer, born in Springfield, Mass., Feb. 14, 1856; died in White Plains, N. Y., Feb. 19, 1898. In his earliest youth he was noted for a sweet voice and natural musical ability. From his thirteenth year he was known in New England as "the Boy Temperance Singer," accompanying and assisting lecturers on temperance. He began to compose and sing Irish songs when about fifteen years of age. In 1876 he became associated with William Cronin in minstrelsy. The sketches and songs in which this well-remembered "team" appeared were generally written by Scanlan. He subsequently became the leading support of Miss Minnie Palmer in a musical comedy, in the performance of which he remained associated with her for two years. He was then engaged by W. H. Power to head a company in a play called "Friend and Foe," which had been adapted for Scanlan by Bartley Campbell. In this play Scanlan first sang his famous song "Peekaboo!" He also played "The Irish Minstrel" for the first time while under Power's management. In 1881 he was engaged by Augustus Pitou to star in Irish comedy in parts that were to be especially adapted to his powers as a singer. "Shane na Lawn," by James Connor Roach, was the first of this series of popular plays to be produced. To this were added in succession "The Irish Minstrel," "Myles Aroon!" and "Mavourneen," the last from the pen of George H. Jessop. In these plays he sang for the first time his sweet songs "My Nelly's Blue Eyes," "What's in a Kiss?" and "Plain Molly, O!" While playing in the hundredth performance of "Mavourneen" at the Fourteenth Street Theater, New York, on Christmas Eve, 1891, he became insane from the effects of paresis and was removed, first to his hotel, and two weeks afterward to Bloomingdale Asylum, where he remained in helpless imbecility until his death. He was not brilliant as an actor, but his rare gift of minstrelsy gave him the affectionate liking of theater goers. It is said that he wrote and composed music for more than 100 songs.

Schaeffer, Charles A., educator, born in Pennsylvania in 1843; died in Iowa City, Iowa, Sept. 25, 1898. He was graduated at the University of Pennsylvania in 1861, and afterward studied in Germany. He was Professor of Chemistry and Mineralogy at Cornell University from 1869 till 1887, dean of the Cornell Faculty in 1866-'67,

and had been president of the University of Iowa since 1887.

Seguin, Edward Constant, neurologist, born in Paris, France, in 1843; died in New York city, Feb. 19, 1898. He was a son of Dr. Edouard Onesimus Seguin, who came to the United States soon after the revolution of 1848. The younger Seguin was graduated at the College of Physicians and Surgeons, New York, in 1864, and spent two years in the medical department of the National army while a student. A pulmonary trouble contracted in the army unfitted him for professional work in New York city, and, re-entering the army, he spent several years in New Mexico, where his health was completely restored. On the establishment of the Connecticut Hospital for the Insane he was appointed pathologist to it, and he held that post ten years. In 1869-'70 he made a special study of nervous diseases with the best French specialists, and on his return settled in New York for general practice. He became a member of the faculty of the College of Physicians and Surgeons in 1871; was lecturer there on diseases of the spinal cord, and on insanity from 1871 till 1885; and founded a clinic for nervous diseases in 1873. Despite the shock of a terrible domestic tragedy, he continued his professional work till 1896. Dr. Seguin was one of the founders of the American Neurological Association and of the New York Neurological Society. He bequeathed to the Academy of Medicine his special collection of monographs and pamphlets on the nervous system, which he was thirty years in gathering. To the Pathological Laboratory of the College of Physicians and Surgeons he gave all his instruments and appliances for study of the nervous system: his microscopes, objectives, microtomes, knives, models, and charts, his collection of pathological specimens, and all the books in his library relating to the anatomy and physiology of the nervous system.

Seidl, Anton, composer and musical conductor, born in Buda-Pesth, Hungary, May 6, 1850; died in New York city, March 28, 1898. He entered the Leipsic Conservatory in 1870, from which he became in 1872 a pupil of Hans Richter, director of the Opera House at Buda-Pesth. Wagner at this time was preparing the Nibelung music dramas for production at Baireuth, and asked Richter to recommend a young musician for the post of assistant, and Seidl was sent to assume that post. He was a member of Wagner's household, and was the great composer's chief assistant during all the time of the rehearsal and production of the great works that resulted in the musical festival of 1876. In 1878, on the completion of his engagement at Baireuth, Seidl became musical stage manager of the Royal Opera House, Vienna, and in 1879 conductor at Leipsic. In 1882 he was engaged to conduct the performances of Wagner's ring dramas at her Majesty's Theater in London. In 1883 and 1884 he was the conductor of a traveling company that produced the Wagner operas throughout Germany, Austria, Hungary, Italy, Holland, and Belgium. In 1885 he became conductor of the Bremen Opera House. On the death of Dr. Leopold Damrosch Seidl was invited to the conductor's chair of the Metropolitan Opera House, New York city. Although not retained in the place of conductor by Abbey, Schoefer & Grau, he was, under the insistence of Jean de Reszke, engaged to conduct the Wagner operas during the seasons of 1895-'96 and 1896-'97. When Theodore Thomas went to Chicago Seidl was selected as the musical conductor of the New York Philharmonic Society, beginning his duties in that place Nov. 20, 1890. He was also chosen leader of the permanent orchestra. The summer concerts conducted by him were a constant

feature at Brighton Beach. In the summer of 1897 he went to Baireuth, and on July 20 conducted the ninety-third performance of "Parsifal" given there. During the winter of 1897-'98 he conducted a series of Sunday-night concerts at the Metropolitan Opera House, and another series at the Waldorf-Astoria, New York city. His death was sudden and was supposed to have resulted from accidental ptomaine poisoning.

Seuter, De Witt Clinton, politician, born in Harriman, Roane County, Tenn., in 1831; died near Morristown, Tenn., in June, 1898. In early manhood he became active in public affairs, and locally was prominent in the Whig party prior to the formation of the Republican. Before the civil war opened he had served in the lower house of the State Legislature. In 1861 he espoused the cause of the Union and was a delegate to the Union convention held in Knoxville and in Greenville. He made many speeches in the presidential canvass of 1868, when he was a candidate for elector on the Grant and Colfax ticket. The same year he was elected to the State Senate, of which he became president. On the election of Gov. William G. Brownlow to the United States Senate by the Legislature of 1868-'69, President Seuter became Governor by virtue of his office. He succeeded to the office at a time when the extremely radical policy of Gov. Brownlow had provoked much bitterness throughout the State. By pursuing a more conservative course Gov. Seuter did much to restore harmony and peace, and because of this he was elected to the office for the succeeding term by a large majority.

Sexton, William, billiard player, born in Burlington, Vt., April 8, 1854; died in New York city, April 25, 1898. He was virtually reared in a billiard room. In 1872 he came to New York city, and two years later defeated Charles E. Effler, the Albany champion. In 1875 he encountered A. P. Rudolphe, of France, and defeated him in 33 out of 35 games. He won a match for \$1,000 with George F. Slosson in 1876; went to France the same year and lost to Maurice Vignaux. On his return he set out to tour the United States with Slosson. He twice defeated Joseph Dion in 1877, and in 1879 defeated Slosson for the championship of the world. The honor was wrested from him the next year by Schaeffer, whom he in turn defeated in 1881 in a match for \$2,500 a side.

Shallenberger, Oliver Blackburn, electrician, born in Rochester, Pa., in 1860; died in Colorado Springs, Col., Jan. 23, 1898. He was graduated at the United States Naval Academy in 1881, was present at the bombardment of Alexandria, and was honorably discharged from the navy in 1883. Entering the employment of the Westinghouse Company at Pittsburg, he there rose to the post of chief electrician, which he retained till failing health compelled him to resign in 1891. After his retirement he applied himself as closely as his health would permit to electrical experiments in his own laboratory at his birthplace. While he was in the employment of the Westinghouse Company Mr. Shallenberger invented several electrical devices. The most noteworthy of these was the electric meter, known the world over and adopted by the Government Board of Trade of Great Britain as the standard instrument for accurate measurement of electric currents. In co-operation with George Westinghouse he was the first to demonstrate in the United States the efficiency and safety of the alternating current. He also originated many of the devices in use in central lighting stations.

Sharpe, Frieda Stevenson, author, born in Reykjavik, Iceland, Jan. 8, 1861; died in Chicago, Ill., Nov. 4, 1898. She was educated in her native

town. About 1878 she went to Chicago, where she soon learned the English language. She became a frequent contributor to magazines, her work consisting of short stories and poems, as well as translations of Scandinavian and Icelandic stories. She wrote an Icelandic play, "Jon," and at the time of her death had just finished a translation of Kieland's novel, "Jakob."

Sheldon, Charles H., farmer, born in Johnson, Vt., in 1840; died in Deadwood, S. Dak., Oct. 20, 1898. His boyhood was spent mainly on a farm in Lamoille County. At the outbreak of the civil war he enlisted as a private in the 7th Vermont Infantry; and he was mustered out with the rank of captain, March 14, 1866. After the war he went to Illinois, where he lived eleven years. He then went to Kentucky, and in 1881 settled on a farm near Pierpont, S. Dak. He was elected to the Territorial Council, made permanent chairman of the Republican State Convention in 1890, elected Governor of South Dakota in 1892, and re-elected in 1894.

Sheldon, Isaac Esleeck, publisher, born in Albany, N. Y., Dec. 20, 1835; died in Rye, N. Y., June 30, 1898. He was a son of the late Smith Sheldon, founder of the New York publishing house of Sheldon & Co., and was graduated at the University of Rochester in 1857. He was brought up in the publishing house, and for many years had been at its head both as a firm and as a corporation. At the time of the historic sea fight between the "Monitor" and the "Merrimack" he was within the lines at Fort Monroe, and witnessed the encounter. While he was on his way to New York the late George W. Childs insisted that he should leave his train and write an account of the battle, and the Philadelphia "Ledger" thus obtained the first report.

Shipman, William D., jurist, born in Chester, Conn., Dec. 29, 1818; died in Astoria, N. Y., Sept. 24, 1898. He worked on a farm at his home from his fourteenth till his twenty-fourth year, when he went to Springfield, N. J., where he taught a school. In 1842 he removed to East Haddam, Conn., studied law, and in 1850 was admitted to the bar. He was elected judge of the Probate Court in 1852; member of the State Assembly in 1853; and in July, 1853, was appointed United States Attorney for the district of Connecticut, and reappointed in 1856. In 1860 he was made United States district judge for Connecticut, which office he held thirteen years. Judge Shipman retired from the bench in 1873, came to New York city, and took up the practice of law, becoming senior member of the firm of Shipman, Barlow, Larocque & Macfarlane. He withdrew from the firm in 1895. He received the honorary degrees of M. A. and LL. D. from Trinity College, Hartford.

Showalter, John William, jurist, born in Mason County, Kentucky, Feb. 8, 1844; died in Chicago, Ill., Dec. 10, 1898. He was graduated at Yale in 1867, and studied law. He went to Chicago in 1869, and was admitted to practice in 1871. He joined the law firm of Abbott & Oliver, which, on the death of Mr. Abbott, in 1890, became known as Oliver & Showalter. He was the Democratic candidate for judge of the Superior Court in 1893, but was defeated by Judge Gary. On Feb. 25, 1895, he was appointed Judge of the 7th Judicial District of the United States circuit court, and he held the office till his death.

Singerly, William Miskey, capitalist, born in Philadelphia, Pa., Dec. 27, 1832; died there, Feb. 27, 1898. He was graduated at the high school of Philadelphia in 1850; spent ten years as clerk in a produce commission house, and then became associated with his father in the management of street-railway lines. In 1868 he went to Chicago, and built up a successful business, which was ruined by

the fire of 1871. He returned to Philadelphia, became manager of the Germantown Passenger Railway Company, and on his father's death, in 1878, came into possession of stock of that company, which he sold for \$1,500,000. Mr. Singerly in 1877 purchased "The Public Record," changed its name to "The Philadelphia Record," introduced new methods, and soon made it one of the best-known newspapers of the country. He purchased and operated a large paper mill at Elkton, Md. He also purchased large tracts of real estate in the northwest section of Philadelphia, erected hundreds of houses, and practically created a new residence portion of the city. At one time he owned the Empire Theater, which was burned in 1886. In 1887 he took an active part in establishing the Chestnut Street National Bank, of which he was the second president. He was also president of the Chestnut Street Savings Fund Company. In 1894 he was the Democratic candidate for Governor of Pennsylvania, but was defeated by Gen. Hastings. Financial misfortune overtook Mr. Singerly in 1897; the extreme shrinkage in the price of paper and the resulting depreciation in the value of his paper mills at Elkton were the primary causes of his embarrassment, and of the suspension of the bank and trust company with which he was identified. Mr. Singerly turned over all his personal assets, including his interest in "The Record," and the assignees were engaged on a plan of rehabilitating the institutions at the time of his death. Mr. Singerly owned a celebrated stock farm at Elkton, Md.

Smith, Joseph Patterson, journalist, born in West Union, Adams County, Ohio, Aug. 7, 1856; died in Miami, Fla., Feb. 5, 1898. His ancestors emigrated from Argyleshire, Scotland, to the north of Ireland, and thence to America, and settled in New Hampshire as early as 1730. His grandfather, Judge David Campbell Smith, went to Ohio in 1813, and settled at Franklinton (now Columbus). His father, Judge John M. Smith, settled in West Union in 1840. Joseph received his early education in the public schools and in his father's printing office, and then went to work in a nail factory at Bellaire, Ohio. He removed to Greencastle, Ind., and obtained work on a newspaper, working at night and attending college during the day. He taught several country schools in Ohio and Illinois, studied law, and was admitted to the bar, but never practiced. In 1876 he took charge of the political department of the Cincinnati "Commercial." He was successively editor of the West Union "New Era," Clermont "Courier," Lebanon "Star," Urbana "Citizen," and Toledo "Commercial." He was also Columbus correspondent for several winters of several dailies, and was journal clerk in the Ohio Senate. He was always an ardent supporter of Gov. McKinley, serving more than four years as State Librarian under him, resigning in May, 1896, to take an active part in the presidential campaign. He was appointed by President McKinley, on March 29, 1897, director of the Bureau of American Republics, and he prepared a comprehensive handbook on Hawaii and Alaska, and the Commercial Directory, also articles on trade relations in America in the monthly bulletin. He compiled and edited the speeches made by Gov. McKinley while Congressman and Governor, and also wrote the sketch of McKinley in the "Annual Cyclopædia" for 1896. A few weeks before his death he finished a "History of the Republican Party in Ohio." His widow died Sept. 13.

Smith, Richard, journalist, born in County Wexford, Ireland, Jan. 30, 1823; died in Cincinnati, Ohio, April 22, 1898. He received a common-school education, and in 1841, after the death of his father, came to the United States with his

mother, and went to Cincinnati, where an elder brother had settled. The mother bought a farm and removed to it with her seven other children, leaving Richard in Cincinnati. Unable to procure mercantile employment, Richard learned the carpenter's trade. About the time his apprenticeship expired he secured a place as reporter in the commercial department of the "Chronicle." In 1845 he was appointed assistant superintendent of the newly established Chamber of Commerce, and four years afterward superintendent. At this time he also bought the "Price Current." On the extension of the telegraph to Cincinnati, in 1846, he became agent for the newspapers of the city, and was the first to secure the news of the New York Associated Press. During his connection with the Chamber of Commerce he wrote all the daily and weekly market reports for the Cincinnati papers, for which they paid the Chamber; wrote financial articles for the "Gazette"; and built up a high reputation for his "Price Current" by collecting and publishing statistics of the Western hog crop. In 1854 he purchased an interest in the "Gazette," and two years afterward applied himself wholly to supervising the business department and the financial and commercial columns of that paper. Subsequently he was made its managing editor. In 1881 the "Gazette" and the "Commercial" were consolidated under the title of the "Commercial-Gazette," of which Mr. Smith became business manager and Murat Halstead editor. On Mr. Halstead's removal to New York, Mr. Smith assumed general control, and a reorganization in 1891 left the latter free to resume editorial work, which he kept up till within a few years of his death.

Spencer, Jesse Ames, clergyman, born in Hyde Park, N. Y., June 17, 1813; died in Passaic, N. J., Sept. 2, 1898. He was graduated at Columbia College in 1837 and at the General Theological Seminary in 1840. In the latter year he was ordained deacon, and in 1841 was advanced to the priesthood. His earliest rectorship was at Goshen, N. Y., 1840-42, and from 1863 to 1865 he was rector of St. Paul's Church, Flushing. But it was as author and classical scholar that he was best known. He was Greek Professor at the College of the City of New York from 1869 to 1879, and emeritus professor two years longer. His published books comprise "The Christian instructed in the Ways of the Gospel and the Church" (New York, 1844); "History of the English Reformation" (1846); "The New Testament in Greek with English Notes," edited (New York, 1874); "Calvin's Commentaries, with English Notes," edited (1848); "The East: Sketches of Travel in Egypt and the Holy Land" (New York, 1850); "History of the United States to the Death of Lincoln" (1856-'69); "Pycroft's Course of English Reading," edited; "Greek Praxis" (1870); "The Young Ruler who had Great Possessions" (1871); "Sketch of the History of the Protestant Episcopal Church in the United States" (1878); "The Five Last Things: Studies in Eschatology" (1887); and "Recollections of Sixty Years." In 1883 he was appointed by the House of Bishops custodian of the Standard Bible.

Stark, Sarah (Mrs. JAMES STARK), actress, born in New York city in 1823; died in San Francisco, Cal., Dec. 9, 1898. She was first known on the stage in New York city, where she made her appearance as the wife of John Hudson Kirby, the favorite actor, who was the subject of the saying "Wake me up when Kirby dies!" After a long term of service in the Bowery Theater Mrs. Kirby went with her husband to England, where she supported him in a very successful starring tour. On Mr. Kirby's sudden death in England, in 1848, Mrs. Kirby returned to New York, where she resumed

her place as a stock actress. In 1849 she married a New York politician named Wingart, with whom, on the news of the discovery of gold in California, she joined the members of the Argonauts. Upon her arrival in San Francisco she was immediately engaged by Thomas Maguire, the pioneer California manager, as leading lady of the Jenny Lind Theater, the first permanent playhouse of San Francisco. While waiting for the completion of the theater in San Francisco she played a short engagement at the Eagle Theater, in Sacramento, and on Nov. 4, 1850, began at the Jenny Lind Theater a prosperous career as the principal actress of "Early Days in California." There were many New Yorkers in San Francisco and Sacramento who had known and admired her as an actress at home, and from the opening night her place as a favorite was assured. On Nov. 17, 1850, Mr. Wingart was killed by an accident, and on June 4, 1851, the actress married James Stark, an actor of high reputation, the leading man of Maguire's company. On her marriage to Mr. Stark she ceased to use the name of her first husband (Kirby), by which she had been professionally known up to that time, and was always known thereafter as Mrs. James Stark. In 1852-'53 Mr. and Mrs. Stark, who had gained great favor in the theaters of San Francisco and Sacramento, began to play as stars. They traveled to all the interior towns and mining camps of the State, taking with them a company of capable actors and playing the Shakespearian and standard plays in the public halls, courthouses, and hotel dining-rooms. In the summer of 1854 Mr. and Mrs. Stark went to Australia, where they were so successful as tragic stars that they remained in that country three years and returned to California with a comfortable fortune, most of which was invested in real estate in San Francisco and carefully improved. On April 5, 1858, Mrs. Stark and her husband began an engagement at Wallack's Theater, New York city, which lasted several weeks with great success. The opening play was "The Gamster," and this was followed with "The Lady of Lyons," "Richelieu," "Othello," "Hamlet," and "The Stranger." After a few short engagements in other cities they returned to the Pacific coast, and for about ten years occupied the theaters of its new cities. Mr. Stark died in San Francisco, Oct. 12, 1875, both he and his wife having been for some years retired and living in that city. Mrs. Stark was again married, Sept. 18, 1883, to the well-known actor Charles Thorne, Sr.

Stockton, Robert Field, lawyer, born in Princeton, N. J., Jan. 22, 1832; died in Trenton, N. J., May 5, 1898. He was the great-grandson of Richard Stockton, a signer of the Declaration of Independence, and a son of Commodore Robert F. Stockton. He was graduated in 1851, and admitted to the bar in 1854. He was made brigadier general, Jan. 30, 1858, and became adjutant general of New Jersey, which office he held during the civil war. In 1867 he resigned, and was brevetted major general. He was elected Comptroller of New Jersey in 1877, and held the office three years. He was president of the Delaware and Raritan Canal Company from 1866 till 1872, when it was merged into the United New Jersey Railroad and Canal Company, of which he was president till his death. He was an incorporator of the Mercer and Somerset Railway Company.

Stranahan, James Samuel Thomas, "first citizen of Brooklyn," born in Peterborough, N. Y., April 25, 1808; died in Saratoga, N. Y., Sept. 3, 1898. He spent his early years on his father's farm, studied in winter, and at the age of seventeen taught in the village school, at the same time studying civil engineering. In 1827-'28 he visited the upper lake

region of the Northwest, with a view of opening trade with the Indians. Unable to enlist others in his scheme, he abandoned it, to embark in the wool business in Albany. In 1832 he was induced to take charge of a township of land in Oneida County for the purpose of founding a manufacturing village; and developed the town of Florence, which he represented in the State Assembly in 1838-'40. He removed in 1840 to Newark, N. J., where he engaged in the building of railroads, and in February, 1845, went to Brooklyn, where he remained the rest of his life. At first he undertook the business of a railroad contractor, and later began a scheme for developing the water front of Brooklyn, and succeeded in making one of the most perfect and systematic basins in the world, the Atlantic dock. He was elected alderman in 1848, defeated for mayor in 1851, and elected to Congress in 1854. He was appointed a member of the newly organized Metropolitan Police Board in 1857, and was reappointed in 1858. He became a Republican in 1860, was a delegate to the national conventions of 1860 and 1864, and was president of the War Fund Committee of Brooklyn during the civil war. He was president of the Park Board from 1860 till 1882, during which time Prospect Park was developed into the second in size in the country. A bronze statue of Mr. Stranahan was erected in Prospect Park, and unveiled June 6, 1891. Mr. Stranahan was at the head of a company of capitalists organized in 1869 to build the New York and Brooklyn Bridge, and presided at its opening ceremonies May 24, 1883. He was one of the earliest advocates of the Greater New York, his first public utterance in favor of it being made at a dinner of the Chamber of Commerce May 8, 1883, and he was a member of the original commission appointed to bring about the consolidation. He was at different times a member of the Board of Directors of the Polytechnic Institute, the Academy of Music, and the Brooklyn Institute.

Sturtevant, Edward Lewis, agriculturist, born in Boston, Mass., Jan. 23, 1842; died in Framingham, Mass., July 30, 1898. He was graduated at Bowdoin College in 1863, and at the medical department of Harvard in 1866, spending one of the intervening years as captain in the 24th Maine Volunteers. On leaving Harvard he engaged in scientific agriculture and the breeding of choice dairy cattle at South Framingham. During 1881-'87 he was director of the New York State Agricultural Experiment Station at Geneva. He was once president of the Society for the Promotion of Agricultural Science, and a fellow of the American Association for the Advancement of Science. Dr. Sturtevant was a frequent contributor to the periodical press and a lecturer on subjects relating to his life work. He edited the "Scientific Farmer" in 1876-'79; the "North American Ayrshire Register"; and the annual "Reports of the New York Agricultural Experiment Station" (1882-'87); and, with Joseph N. Sturtevant, published a monograph on the Ayrshire breed of cattle under the title "The Dairy Cow" (Boston, 1875).

Sutro, Adolph Heinrich Joseph, mining engineer, born in Aix-la-Chapelle, Prussia, April 29, 1830; died in San Francisco, Cal., Aug. 8, 1898. He came with his mother, six brothers, and four sisters to New York city in 1850; went to Baltimore; and, having established the family in that place, went to San Francisco, arriving there Nov. 21, 1850. For nine years he conducted a small business there, till in 1860 he saw his great opportunity in the condition of the Comstock and other mines. He visited Nevada, learned of the unfavorable state of the mines, and conceived the plan of the great Sutro Tunnel, through the mountains where lay the

Comstock lode. He interested capitalists in the project, and obtained a charter from the Nevada Legislature, Feb. 4, 1865, and the authorization of Congress, July 25, 1866. Actual work was begun on the tunnel, Oct. 19, 1869; it proceeded rapidly, and by 1871 four vertical shafts had been opened along its line; and when it was completed, in 1879, it had cost nearly \$4,000,000. The main tunnel is 1,650 feet below the surface, is 20,000 feet long, and has lateral branches amounting to nearly 4,000 feet. It is 12 feet wide and 10 feet high. Mr. Sutro's contract with the mine owners called for \$2 royalty on every ton taken from the mines, and when the work was completed he had about \$5,000,000. He sold out his interest in the tunnel, went to San Francisco, invested largely in real estate in all sections of the city, and was soon numbered among the richest men of the Pacific slope. He created and opened to the public a beautiful park, which was a sand waste in 1880; gave to the city statues and fountains; and built an aquarium and salt-water baths. He formed a collection of books, known as the Sutro Library, containing more than 200,000 volumes, particularly rich in early Americana, and documents relating to the Pacific coast. It also contains many Japanese and Sanskrit manuscripts. He was elected Mayor of San Francisco in 1894 on the Populist ticket. In February, 1894, he was adjudged incompetent, and a guardian of his person and estate was appointed. (See GIFTS AND BEQUESTS.)

Taliaferro, William Booth, military officer, born in Belleville, Gloucester County, Va., Dec. 28, 1822; died in the same house in which he was born, Feb. 27, 1898. He was educated at Harvard and at William and Mary Colleges, being graduated at the latter in 1841, and afterward studied law. In April, 1847, he entered the army as captain in the 11th United States Infantry; in August following he was promoted to major of the 9th Infantry; and in August, 1848, after a creditable service, he was mustered out and engaged in law practice. At the beginning of the civil war he was commissioned a colonel in the Provisional Army of Virginia and placed in command of the forces at Gloucester Point. On the organization of the Confederate army he was transferred to it and became a brigadier general on March 4, 1862, and a major general on Jan. 1, 1865. He was engaged in most of the battles of the Army of Northwestern Virginia till March, 1863, when he assumed command of the district of Savannah, Ga. In July following he commanded the defenses on Morris Island, S. C., and in August the forces on James Island. During the first half of 1864 he was in command of a division in Florida and of the 7th Military District of South Carolina, and toward the close of the year his command was extended over the entire State. His most distinguished service was his defense of Fort Wagner from July 10 to Sept. 6, 1863, against the assaults of Gen. Gillmore by land and Admiral Dahlgren by water. After the war he resumed law practice, but was soon elected to the House of Delegates, where he served till the days of readjustment. He became judge of Gloucester County in 1892, and held the place till within a few months of his death.

Thayer, William Makepeace, author, born in Franklin, Mass., Feb. 23, 1820; died there, April 7, 1898. He was graduated at Brown University in 1843 and began the study of theology. From 1849 till 1857 he was in charge of the Orthodox Congregational Church of Ashland, Mass., but in consequence of a throat trouble he gave up the ministry and devoted himself to literary work. He went back to Franklin in 1858, and served two terms in the Legislature, in 1857 and in 1863. He was secretary of the Massachusetts Temperance Alliance from 1860 till 1876. Mr. Thayer was a prolific

writer. His published works include "Hints for the Household" (1853); "Life at the Fireside" (1854); "Spots in our Feasts of Charity" (1854); "Pastor's Wedding Gift" (1854); "The Morning Star" (1856); "The Poor Boy and the Merchant Prince" (1857); "Doing and Not Doing"; "From Poorhouse to Pulpit" (1858); "The Poor Girl and True Woman" (1858); "The Bobbin Boy" (1860); "Tales from the Bible for the Young" (1867); "The Printer Boy" (1860); "Working and Winning" (1862); "The Pioneer Boy and how he became President" (1863); "The Old Horseshoe" (1863); "Tales from Genesis for the Young" (1863); "The Farmer Boy and how he became Commander in Chief" (1863); "Soldiers of the Bible, for the Young" (1864); "Character and Public Service of Abraham Lincoln" (1864); "Youth's History of the Rebellion" (1864-'66); "Communion Wine and Bible Temperance" (1869); "Nelson" (1878); "Charles Jewett" (1879); "Tact, Push, and Principle" (1880); "From the Log Cabin to the White House" (1881); "In the Meshes" (1881); "Our French Visitors" (1882); "From Pioneer Home to the White House" (1882); "From the Tannery to the White House" (1885); "From Farmhouse to White House" (1890); "Success and its Achievers" (1891); "Ethics of Success" (1893); "Aim High" (1895); "Around the Hearthstone" (1896); "Men who Win" (1896); and "Women who Win" (1896).

Todd, Sereno Edwards, journalist, born in Lansingville, Tompkins County, N. Y., June 8, 1820; died in Orange, N. J., Dec. 26, 1898. For several years he was a scientific and practical farmer and he was subsequently agricultural editor of the New York "Times." His writings include "The Young Farmer's Manual" (1860); "The American Wheat Culturist" (1868); "Todd's Country Homes and how to save Money" (1868); "The Apple Culturist" (1871)—works which enjoyed a wide sale. He left unpublished "Rural Poetry and Country Lyrics." He was a lineal descendant of Jonathan Edwards.

Tome, Jacob, philanthropist, born in Manheim Township, York County, Pa., Aug. 18, 1810; died in Port Deposit, Md., March 16, 1898. His parents, who were German Lutherans, instilled into their son's mind the cardinal principles of honesty, industry, economy, and self-reliance. The struggles in which his early life abounded tended to develop his strong character. Farming, fishing, merchandise, one year's teaching, were the stepping-stones that led to his rich business experience. In 1833 he went to Port Deposit and began the dealings in lumber and grain which were the foundation of his wealth. His operations soon extended to the manipulation of banks, railways, and steamboat lines. To his enterprise and generosity Port Deposit owes much of its present success. The Methodist Episcopal church in the town, erected at a cost of \$80,000, stands as a memorial to him. In 1864 Mr. Tome, as chairman of the Finance Committee of the Maryland Senate, relieved the seemingly hopeless financial condition of the State and reduced its indebtedness to less than \$1,000,000. Public offices—among them the secretaryship of the Treasury under President Grant—were declined by him. Presidents Lincoln, Grant, Hayes, Arthur, Garfield, placed high estimates upon his judgment and often solicited his counsel. His lack of early educational advantages led him to covet such advantages for others, and throughout life his interest in the establishment of schools was great. In 1884 he presented to Dickinson College, of which institution he was a trustee, a handsome building for scientific uses. The Jacob Tome Institute, at Port Deposit, Md., is the recipient of the largest share of his

munificence, its trustees having received prior to his death \$1,600,000, which has been increased by his will to more than \$3,500,000. This school, opened in the autumn of 1894, is coeducational and comprises a whole school system in miniature. Its courses extend from the kindergarten through the high school, and, in addition to the usual branches, include instruction in art and several kinds of manual work, as well as science and modern and ancient languages.

Toucey, John M., railroad manager, born in Newtown, Conn., in 1828; died in Fishkill Landing, N. Y., Sept. 23, 1898. He began his career as a railroad man in Connecticut. In 1855 he entered the employ of the Hudson River Railroad, and in 1862 he was appointed assistant superintendent. From 1867 to 1881 he was superintendent of the Hudson River division of the New York Central and Hudson River Railroad. From 1881 to 1890 he was general superintendent of the whole system, and from 1890 to 1898 he was general manager. He retired in May of the latter year, with the unusual honor of a pension. He was considered one of the ablest railroad operators in the United States.

Townsend, Franklin, soldier, born in Albany, N. Y., in 1820; died there, Sept. 11, 1898. He was adjutant general of the State of New York for three terms, the terms beginning respectively in 1867, 1875, and 1877. Under his last administration the labor riots were successfully ended without a resort to arms. During his several administrations the State recovered large sums of money from the United States in the way of war claims, the system of rifle practice was instituted, the service was supplied with a book of regulations, the military code was formulated, and the first steps were taken in uniforming and equipping the National Guard, which resulted in the adoption of the present service uniform. So great were his services in this line that he was universally known as "the Father of the National Guard." He served a term in the State Assembly, and he was mayor of Albany in 1850.

Trescott, William Henry, diplomatist, born in Charleston, S. C., Nov. 10, 1822; died in Pendleton, S. C., May 4, 1898. He was graduated at Charleston College in 1840, studied at Harvard, and was admitted to the bar in 1843. He was appointed secretary of the United States legation at London in December, 1852, and Assistant Secretary of State in June, 1860, which office he held till South Carolina seceded. He served in the Legislature of that State from 1862 till 1866, and also on the staff of Gen. Roswell S. Ripley. At the close of the war he was sent to Washington in behalf of South Carolina to adjust differences growing out of the reconstruction acts. He removed to Washington in 1875 and resumed his law practice. In June, 1877, he was counsel for the United States before the Fishery Commission at Halifax; in April, 1880, he was one of the commissioners appointed to revise the treaty with China; in February, 1881, was appointed to represent the United States in the negotiations with reference to its rights on the Isthmus of Panama; and in the same year was special envoy to the belligerents in Peru, Chili, and Bolivia. He was also a commissioner in 1882 with Gen. Grant to negotiate a commercial treaty with Mexico. He published works on diplomatic topics, including "A Few Thoughts on the Foreign Policy of the United States" (1849); "The Diplomacy of the Revolution" (1852); "Diplomatic System of the United States" (1853); "An American View of the Eastern Question" (1854); "The Diplomatic History of the Administrations of Washington and Adams" (1857); and "Address before the South Carolina Historical Society" (1859); and orations and political pamphlets.

Tripp, Seth D., inventor, born in Rochester, Mass., in 1826; died in Lynn, Mass., Jan. 7, 1898. When about twenty years old he invented a machine for pegging shoes, which was a pronounced success and found its way into many factories. He next invented a counter skiver, and later secured patents on rolling machines, sole molders, shank cutters, heel polishers, sole dyers, and welt-cutting and beating-out machines.

Trotter, Newbold Hough, artist, born in Philadelphia, Pa., Jan. 4, 1827; died in Atlantic City, N. J., Feb. 21, 1898. He was graduated at Haverford College in 1845, entered a wholesale dry-goods house, and withdrew in 1858 to devote himself to art. He joined the Germantown Home Guards in 1861, and took part in the battle of Antietam. He resumed his profession in 1867. Later he was engaged by the United States Government to paint all the mammals of North America for a publication to be issued under its auspices. He had completed about 40 of these pictures when the appropriation for the work was exhausted. His chief works are "After the Combat," "Grizzly Bears," "Wounded Buffaloes," "The Last Stand," "Indian Encampment," and others painted for the War Department. Three pieces, representing the progress of travel in Pennsylvania during fifty years, are his most notable historic paintings. He was a member of the Pennsylvania Academy of Fine Arts, the Philadelphia Society of Artists, the Art Club of Philadelphia, and the Artists' Fund Society.

Tyng, Stephen Higginson, clergyman, born in Philadelphia, June 28, 1839; died in Paris, France, Nov. 17, 1898. He was a son of Rev. Stephen Higginson Tyng, long prominent in New York city as rector of St. George's Church, and was educated for the ministry at the Theological Seminary in Alexandria, Va. After taking deacon's orders in 1861, he assisted his father at St. George's for more than two years, until his admission to the priesthood, in 1863. From 1863 to 1865 he was rector of the Church of the Mediator in New York city, and in the latter year he organized the Church of the Holy Trinity in New York and was its only rector until his resignation, in 1881. Soon after this he went to Paris and engaged in life insurance and at the time of his death he was president of the American Chamber of Commerce in Paris and director general of the Mutual Reserve Fund Life Association for the Continent of Europe. In 1867 he created a sensation by preaching in a Methodist church in New Brunswick, N. J., and was brought to trial for so doing by Bishop Potter. In 1872 he received the degree of D. D. from Williams College. He was the author of "The Square of Life," "He Will Come," and "Our Church Work."

Underhill, Edward Fitch, stenographer, born in Wolcott, N. Y., in 1830; died in New York city, June 18, 1898. He received a common-school education, studied stenography in 1847, and became a reporter on the St. Louis "Republican" in 1849. He was a member of the Phonetic Council in 1850, came to New York city in 1853, and was connected with the "Times" and later with the "Tribune." He acted as war correspondent for the "Times," was captured, taken to Harper's Ferry, tried as a spy, and acquitted. He left the "Times" in 1862, became a law reporter, studied law, and was admitted to the New York bar. He was at various times official stenographer of the New York Supreme Court, the Legislature, the Constitutional Convention of 1867-68, and at the impeachment trial of Gov. Holden of North Carolina. For thirty years previous to his death he was chief stenographer of the Surrogate Court.

Upham, John J., soldier, born in Delaware, July 25, 1837; died in Milwaukee, Wis., Oct. 21,

1898. He was graduated at West Point in 1859; was assigned to the 9th Infantry, and took part in the Indian wars till the civil war broke out. In 1861-'62 he served in the defense of Washington as a captain in the 6th Infantry. He participated in the Peninsula campaign and the battle of Gettysburg. For gallant and meritorious conduct he was brevetted major in 1863. He was appointed executive officer of the infantry and cavalry school in Leavenworth, Kan., and then was put in command of Fort Gibson, Indian Territory. In 1876 he was ordered into the field in the Department of the Platte. He was with the Little Big Horn and Yellowstone expeditions. After the Indian campaigns he served at several Northwestern posts, and then was sent by the United States to witness the war between Russia and Turkey. In 1887 he witnessed the manoeuvres of the French army. After being made a colonel in 1892, he was retired at his own request, having served in the army for more than thirty years.

Van Horn, James J., soldier, born in Mount Gilead, Ohio, Feb. 6, 1835; died in Fort Russell, Wyo., Aug. 30, 1898. He was graduated at the United States Military Academy in 1858, and joined the 1st Infantry in garrison at Fort Columbus, N. Y., as 2d lieutenant. When the civil war broke out he was on duty at San Antonio, where he was detained as a prisoner for a year. He then became aid-de-camp in the Army of the Potomac, and was engaged in the battles of South Mountain, Antietam, and Bethesda Church. He was brevetted major in 1864 for gallant services at Cold Harbor. From 1865 to 1867 he was recorder of the Board of Tactics at West Point, after which he served with his regiment in several posts at the South till 1870. After that date he commanded posts in Arizona, New Mexico, Montana, and Wyoming. He was with the Yellowstone expeditions of 1872-'73. He was promoted major of the 13th Infantry, 1879; lieutenant colonel, 25th Infantry, 1885; and colonel, 8th Infantry, 1891. He commanded the latter regiment before Santiago, Cuba, in 1898.

Van Ingen, Henry, art educator, born in Holland, Nov. 12, 1833; died in Poughkeepsie, N. Y., Nov. 17, 1898. He was educated at the Academy of Design at the Hague, and studied under J. B. Tom and Van de Lande Backhuysen. He came to the United States about 1861, and for a time taught in Rochester, N. Y. At the opening of Vassar College, in 1865, he became the head of its art department and he was continuously identified with its growth. Mr. Van Ingen was a member of the Tulchri Studio, the Hague, and of the American Water-Color Society, to whose exhibits, as well as others, he often contributed.

Veazey, Wheelock Graves, lawyer and soldier, born in Brentwood, N. H., Dec. 5, 1835; died in Washington, D. C., March 22, 1898. He was graduated at Dartmouth College in 1859, and at the Albany Law School in 1860, and admitted to the bar of Vermont in December, 1860. He began practice in Springfield, Vt., but when the civil war broke out he enlisted as a private in Company A, 3d Vermont Volunteers. He was elected captain of the company in May, 1861; promoted major, August, 1861; shortly afterward was made lieutenant colonel; and in October, 1862, was promoted colonel of the 16th Vermont Volunteers. His regiment formed a part of Stannard's brigade in the famous flank attack upon Pickett's division at Gettysburg. He was mustered out with the regiment in August, 1863, and returned to his law practice. He was reporter of the Supreme Court of Vermont from 1864 till 1872, publishing 9 volumes of decisions; served as register in bankruptcy a short time; was elected State Senator in 1872; appointed a member of a commission to revise the laws

of Vermont in 1878; and was made a judge of the Supreme Court of the State in 1879, serving till 1889. In 1889 he was appointed a member of the Interstate Commerce Commission, but he resigned the office in 1897, because of failing health. He was one of the founders of the Grand Army of the Republic in Vermont; was department commander, 1871-'73; on the staff of the commander in chief in 1877 and 1888; and in 1890 was elected commander in chief of the national organization. He was a trustee of Dartmouth College for many years, and received the degree of LL. D. from it.

Verbeck, Guido F., missionary, born in Zeist, Holland, in 1830; died in Tokio, Japan, March 9, 1898. He was educated at the Moravian Seminary, Zeist, came to the United States in 1852, and was graduated at Auburn Theological Seminary in 1859. He was sent as a missionary to Nagasaki, Japan, remained till 1868, and then went to Tokio. He spent eleven years of work for the Japanese Government in connection with education, and as translator of judicial works. He rejoined the mission in 1879, took part in the translation of the Bible into Japanese, and taught in the theological department of the Meiji Gakuin. He received the decoration of the Rising Sun from the Japanese Government in 1877, and a special passport in 1891.

Wagner, Jacob, artist, born in Bavaria, Jan. 27, 1852; died in New York city, Nov. 5, 1898. He came to the United States when four years of age, worked from the age of twelve at picture-frame making, and learned the art of restoring pictures. In 1874 he began to study art in the evening classes at Lowell Institute; later went to work in the art store of J. Eastman Chase, taking charge of the manufacturing department and the restoring of paintings; and in 1883 devoted himself to art, first painting landscapes and later portraits. He exhibited three pictures at the World's Columbian Exposition. He was a member of the Boston Art Club and the Boston Water-Color Society.

Walcutt, Charles Carroll, soldier, born in Columbus, Ohio, Feb. 12, 1838; died in Omaha, Neb., May 2, 1898. He was graduated at the Kentucky Military Institute in 1858, and became a civil engineer. When the war broke out he raised a company; was made major in June, 1861; became colonel in 1862; and promoted brigadier general July 30, 1864, for gallantry at Atlanta. He took part in the march to the sea. He was wounded at Shiloh, at Kenesaw Mountain, and again at Griswoldville. For bravery at the last place he was brevetted major general. He was mustered out of the service in February, 1866; became warden of the Ohio Penitentiary; was a presidential elector in 1868; and was appointed internal-revenue collector in May, 1869, serving three years. He was elected mayor of Columbus in April, 1883, and re-elected in 1885. He served as a member of the School Board of Columbus several years, and as its president seven years.

Walthall, Edward Cary, lawyer, born in Richmond, Va., April 4, 1831; died in Washington, D. C., April 21, 1898. He studied law in Holly Springs, Miss.; was admitted to the bar in 1852, and began to practice in Coffeeville, Miss. He was elected district attorney in 1856, and re-elected in 1869. He resigned to enter the Confederate army as lieutenant in the 15th Mississippi Regiment. He was promoted brigadier general Dec. 13, 1862, and major general June 6, 1864, serving through the war. He resumed his law practice in Coffeeville, and in 1871 removed to Grenada. Mr. Walthall was a delegate at large to the Democratic National Conventions of 1868, 1876, 1880, and 1884. He was appointed United States Senator in 1885 to succeed Senator L. Q. C. Lamar.

resigned; took his seat March 12, 1885; and, in January, 1886, was elected to fill the unexpired term. He was re-elected in 1888, and again in 1892, more than three years before the expiration of his term. He resigned in January, 1894, for the rest of that term, but returned and took his seat at the beginning of his next term, March, 1895. He served as chairman of the Committee on Military Affairs, and was a member of the Committees on Public Lands and on Improvement of the Mississippi River.

Ward, Hamilton, jurist, born in Salisbury, N. Y., July 3, 1829; died in Belmont, N. Y., Dec. 28, 1898. He was admitted to the bar in 1851, and from 1857 to 1863 was district attorney of Allegany County, N. Y. He was a member of the 39th, 40th, and 41st Congresses, and during his service therein he was a member of the committee on the assassination of President Lincoln, and also of the committee charged with preparing articles of impeachment against President Johnson. In 1879 he was elected Attorney-General of the State of New York, on the Republican ticket. While in that office, for but one term of two years, he broke up the system of private sales of land in the Adirondack mountains, whereby the State had been a heavy loser. In 1890 he was one of a commission to propose amendments to the State Constitution. Early in 1891 he was appointed a justice of the Supreme Court in the 8th District to fill a vacancy, and in November of that year he was elected to that office on the Republican ticket. In 1895, under the new Constitution, he was designated to serve in the appellate division of that court, in Rochester.

Wardrop, David W., soldier, born in Philadelphia, Pa., in 1824; died in Boston, Mass., July 12, 1898. At the beginning of the civil war he was commissioned colonel of the 3d Massachusetts Volunteers. He was mustered out July 22, 1861; re-entered the service, Aug. 21, 1861, as colonel of the 99th New York Infantry, Naval Brigade; and was finally mustered out of the service Jan. 17, 1865, with the rank of brevet brigadier general, having served as military governor of Roanoke island. He was department commander of the Veteran Union of Massachusetts at the time of his death.

Waring, George Edwin, sanitary engineer, born in Poundridge, N. Y., July 4, 1833; died in New York city, Oct. 29, 1898. He was educated



in the public and private schools of Stamford, Conn.; studied in Bartlett's School, Poughkeepsie, from 1847 till 1849; and in 1853 took a course in agriculture and agricultural chemistry under Prof. Mapes. He lectured during the winters of 1853-'55, before farmers' clubs, on improved methods of farming, and attracted the attention of

Horace Greeley, who made him manager of the Greeley experimental farm at Chappaqua, N. Y. In 1857 he was appointed agricultural and drainage engineer of Central Park. He planned the present system of drainage there, and held the office till the civil war began. He was commissioned major of 39th New York Volunteers (Garibaldi Hussars) in May, 1861, and served three months in the Army of

the Potomac. In August following he was transferred to the Department of the Southwest as a major of cavalry under Gen. Frémont. He was detailed for recruiting in St. Louis; raised six troops of cavalry called the Frémont Hussars, which, with the Benton Hussars, were formed into the 4th Missouri Cavalry, and was made colonel of the regiment, and served with it till the end of the war. He was mustered out of the service in March, 1865. From 1867 till 1877 he was manager of the Ogden Farm, at Newport, R. I. He gave up this post to devote his entire time to sanitary engineering. At the time of the outbreak of yellow fever at Memphis, in 1878, he changed the sewerage system of that city, separating house drainage from surface drainage, and this system was adopted in a large number of cities of the United States. In 1882 Col. Waring was appointed a member of the National Board of Health, which post he held several years. For a time, in 1894, he was assistant engineer of New Orleans. On Dec. 30, 1894, he was selected by Mayor Strong as commissioner of street-cleaning for New York city. He took charge Jan. 15, 1895, and remained in office till Jan. 1, 1898. He systematized the work of the department, and not only cleaned the streets of the city, but kept them clean. A novel innovation made by him was the uniforming of the street sweepers in white canvas suits. In 1898, when it was decided to appoint a commission to choose camp sites in Cuba for the American army of occupation and to suggest plans for improving the sanitary condition of Havana, Col. Waring was the first man selected. He was appointed Oct. 2, and went to Cuba shortly afterward. He spent some time in Havana, and soon after his return to New York was fatally stricken with yellow fever. In his report to the President, completed a few days before his prostration, he suggested improvements which would cost several million dollars. He was the candidate of the Citizens' Union for State Engineer and Surveyor at the time of his death. Col. Waring was an honorary member of the Royal Institute of Engineers, Holland; member of the Institution of Civil Engineers, England; fellow of the Sanitary Institute of Great Britain; and corresponding member of the American Institute of Architects. He published "The Elements of Agriculture" (1854); "Draining for Profit and Draining for Health" (1867); "Earth Closets" (1869); "Earth Closets and Earth Sewage" (1870); "Handy Book of Husbandry" (1870); "Whip and Spur" (1875); "A Farmer's Vacation" (1876); "Sanitary Drainage of Houses and Towns" (1876); "The Bride of the Rhine" (1877); "Sanitary Condition of City and Country Dwelling Houses" (1877); "Village Improvements and Farm Villages" (1877); "Tyrol and the Skirt of the Alps" (1880); "How to Drain a House" (1885); "Sewerage and Land Drainage" (1889); and "Modern Methods of Sewage Disposal for Towns" (1894).

Warren, Nathan Boughton, author and composer, born in Troy, N. Y., July 4, 1805; died there, Sept. 3, 1898. He was the first to introduce the choral service of the English Church into American use, which he did in 1844 in a mission church which his mother had founded. He was exceptionally skilled in musical knowledge, and received the degree of doctor of music from Trinity College. Besides composing several anthems he was the author of "The Order of Daily Service with the Musical Notation as used in English Churches" (New York, 1846); "The Ancient Plain Song of the Church" (1855); "The Holidays: Christmas, Easter, and Whitsuntide, their Social Festivities, Customs, and Carols" (1868); "Hidden Treasure: A Goblin Story for Christmas" (1872); "Lanford Hall and

Other Tales"; "Recollections of Revolutionary Times"; and "A Midsummer Night's Dream."

Washington, Ella Bassett, author, born in Hanover County, Va., in 1839; died in New York city, Jan. 17, 1898. She was a descendant of George Washington's family; was the daughter of George Washington Bassett, and the wife of Col. Lewis William Washington, of West Virginia. During the civil war she lived near Richmond. Among notable acts of courage which she performed was the capture of a Federal officer, for which she was voted a gold medal by the Confederate Congress. Mrs. Washington was a member of the Ladies' Mount Vernon Association, the Society of Colonial Dames of Virginia, and the Daughters of the Revolution of New York. She was a frequent contributor to magazines, and some of her poems, notably "The Song of the Sea" and "The Ruined Castle," were widely published.

Waterman, Thomas Whitney, lawyer, born in Binghamton, N. Y., June 28, 1821; died there, Dec. 7, 1898. He studied at Yale College; was admitted to the bar of New York in 1848, and till 1870 practiced his profession in New York city, when he removed to Binghamton. Besides editing a large number of legal works he was the author of the following books: "Treatise on the Civil Jurisdiction of Justices of the Peace" (1849); a substantially new edition of the "American Chancery Digest," with very full notes, known as the "Third Edition" (1851); "Treatise on the Civil and Criminal Jurisprudence of Justices for Wisconsin and Iowa" (1853); "Treatise on the Principles of Law and Equity in the Granting of New Trials in Cases Civil and Criminal" (1855); "Digest of the Reported Decisions of the Superior Court and of the Supreme Court of Errors of Connecticut" (1859); "Treatise on the Law of Set Off, Recoupment, and Counter Claims" (1869); "Treatise on the Law of Trespass" (1875); "Digest of Decisions in Criminal Cases" (1878); "Treatise on the Specific Performance of Contracts" (1881); "Treatise on the Law of Corporations Other than Municipal" (1888).

Weeks, Robert Dodd, educator, born in Clinton, N. Y., April 4, 1819; died in East Orange, N. J., Feb. 23, 1898. He learned the printers' trade, worked for a time as a compositor, and then assisted in his father's school, continuing his studies and acquiring a liberal English and classical education. He taught a public school in Newark, N. J., from 1846 till 1851; was Professor of English Literature and Farm Economy in the Michigan State Agricultural College till the autumn of 1857, and afterward was employed in the office of the Auditor General of Michigan. In February, 1860, he became a clerk in the Mutual Benefit Life Insurance Company of Newark, where he continued till his death. He published "Jehovah—Jesus" (1876); "Genealogy of the Family of George Weekes" (1885); and "The New Dispensation" (1898).

Wells, David Ames, political economist and publicist, born in Springfield, Mass., June 17, 1828; died in Norwich, Conn., Nov. 5, 1898. He was a lineal descendant on his father's side of Thomas Wells, Governor of the colony of Connecticut in 1655-58, and on his mother's side of David Ames, who, under Washington, established and built the national armory at Springfield. Mr. Wells was graduated at Williams College in 1847, and shortly afterward became assistant editor, with Samuel Bowles, of the Springfield "Republican." During this period he was associated in the invention of a mechanism for folding newspapers and books by machinery in connection with power-printing presses. The first of these machines successfully operated was built at his expense and worked under his direction in the office of the Springfield

"Republican." Through the sale of his interest in the invention he was enabled to enter, in 1849, the Lawrence Scientific School of Harvard University. Besides taking the regular course, from which he was graduated with the first class in 1851-'52, he was a special pupil of Prof. Agassiz, who had then but recently arrived in this country. Immediately after his graduation he received the appointment of assistant professor in the Scientific School, and also that of lecturer on physics and chemistry in Groton Academy, Massachusetts. In 1849, while at Cambridge, he began, in association with George Bliss, the publication of an annual report on the progress of science and the useful arts, which, under the title "The Annual of Scientific Discovery," was continued many years. During the next ten years Mr.

Wells was occupied chiefly with his teaching and the preparation of a series of scientific schoolbooks which at one time had an extensive circulation. Two of the series were soon translated into the Chinese language, and an elementary treatise on chemistry was adopted as a text-book at West Point. The first public appreciation of Mr. Wells as an economist was through an essay of his read before a literary society of Troy, N. Y., in 1864. This was entitled "Our Burden and our Strength," and discussed the resources and debt-paying ability of the United States. The enormous debt and great load of taxation with which the civil war was burdening the nation had shaken public confidence, both at home and abroad, in the ability of the country to recover. This essay was the means of bringing Mr. Wells to the notice of President Lincoln, who, much impressed by it, sent for the author to come to Washington and confer with him and the Secretary of the Treasury, Mr. Fessenden, on the best methods of dealing with the finances of the country. One result of this conference was the passage by Congress in March, 1865, of a bill creating a commission of three persons for the purpose of inquiring into and reporting "on the subject of raising by taxation such revenue as may be necessary in order to supply the wants of the Government," etc. Mr. Wells was the chairman of this committee; and its work, which was practically Mr. Wells's work, formed the first systematic attempt in the United States to gather and use national statistics for national purposes. On the termination of the Revenue Commission in 1866, Mr. Wells was immediately appointed for a term of four years to an office created for him under the title of "special commissioner of the revenue." The first work that claimed his attention was a reconstruction and repealing of the system of excessive taxation which had been found necessary during and immediately after the war. Under his initiation and supervision were originated nearly all the forms of importance in our national revenue system, internal and customs, that were adopted by Congress between the close of the war and 1870—the redrafting of the whole system of revenue laws, the reduction and final abolition of the cotton tax and the taxes on manufactured and crude petroleum, the creation of supervisory districts and the appointment of super-



visors, the origination and the use of stamps for the collection of taxes on tobacco, distilled spirits, etc., and the creation of the Bureau of Statistics. An episode in his official career which strikingly illustrates his practical foresight was that connected with the taxing of distilled spirits. Mr. Wells took strong ground against the attempt to collect a tax of 1,000 per cent. (\$2 a gallon), pointing out the invariable inefficiency of such an excessive tax in producing revenue, and the fraud and dishonesty which it would be certain to create. He was not listened to, however, until the great increase of illicit distilling and largely diminished revenue made some action absolutely necessary. In the winter of 1867-'68 Congress reduced the tax to 50 cents a proof gallon, and the result was a most remarkable confirmation of Mr. Wells's prediction. During the last year of the \$2-tax the revenue was \$18,665,000; during the first year of the 50-cent tax it was \$45,071,000. In 1867, with a view to qualifying himself for special work, on the revision of the war tariff, Mr. Wells went to Europe, where his studies of the industries competitive with the United States, for which he had unusual advantages as an official of the Government, led him to a radical change of view regarding the free-trade policy. He had been up to this time an extreme advocate and believer in the theory of protection; but gradually, and much against all his preconceived ideas, he came to believe that free trade, made subordinate to revenue and gradually entered upon, was for the best interests of the whole country. The announcement of these views and the publication of his report in 1869 created much dissatisfaction among the protectionists, and Horace Greeley publicly charged Mr. Wells with having been "corrupted through British gold," although the charge was the grossest libel, as every one personally acquainted with Mr. Wells knew, yet it gained wide circulation and credence, and was no doubt, in conjunction with the personal antagonism between Mr. Wells and the Secretary of the Treasury, Mr. Boutwell, largely responsible for his retirement from Washington, which occurred on the expiration of his office as special commissioner in 1870. Upon his retirement a large number of members of both houses of Congress, without distinction of party, united in a letter of appreciation, from which the following is an extract: "The undersigned, members of the 41st Congress, who have been cognisant of your labors as special commissioners of the revenue, take the occasion of your retirement from public duties to express to you their appreciation of the work you have accomplished and the great ability with which you have discharged the duties of your office. How much soever they may perhaps have differed with you touching the matter of your conclusions upon particular points, they desire, nevertheless, to bear testimony to the great value of your work, and to the honesty and the faithful and untiring zeal which have characterized your whole public career." Shortly after leaving Washington Mr. Wells was appointed chairman of a New York State committee for investigating the subject and the laws relating to local taxation. He was a member, or received honorary degrees from a great number of societies and institutions, of which the following are the most important: He was elected a member of the French Academy in 1874 to fill the chair left vacant by the death of John Stuart Mill. In the same year he received the degree of D. C. L. from the University of Oxford, England. Williams College had already conferred upon him the degree of LL. D. and the Berkshire Medical College that of M. D. In 1870 he had become a member of the Cobden Club, and in 1871 was elected an honorary member of the Royal Statis-

tical Society of England. He was president of the American Social Science Association in 1875, in 1877 a foreign associate member of the Regia Accademia dei Lincei of Italy, and in 1881 was elected president of the American Free-Trade League. He was closely connected with the reorganization of the Erie Railroad in 1879, and in the same year was chosen by the associated railroads of the United States, together with Charles Francis Adams and John M. Wright, a member of a board of arbitration to which the associated railroads agreed to refer all disputes and all arrangements for pooling, etc. The following list comprises the most important of Mr. Wells's writings not already mentioned: In 1875, "The Creed of the Free Trader" and "The Production and Distribution of Wealth"; in 1876, "Robinson Crusoe's Money"; in 1878, "Why we Trade and how we Trade" and "The Silver Question; or, The Dollar of the Fathers vs. the Dollar of the Sons"; in 1882, "Our Mercantile Marine: How it Rose, Increased, became Great, Declined, and Decayed"; in 1884, "The Primer of Tariff Reform"; in 1885, a series of essays entitled "Practical Economics"; in 1886, "Principles of Taxation"; in 1887, "A Study of Mexico"; in 1888, "A Short and Simple Catechism" and "The Relation of the Tariff to Wages"; in 1889, "Recent Economic Changes." The substance of the last-mentioned book appeared as articles in the "Popular Science Monthly," the title there being "Economic Disturbances since 1873." In December, 1895, he began in the same journal the publication of a series of articles entitled "The Principles of Taxation," an expansion of his lecture on this subject, which was printed as a small volume in 1886. The series was much delayed, owing to Mr. Wells's precarious state of health, but had been almost completed at the time of his death. He himself considered this work the most important of anything he had ever undertaken, it being an epitome of the facts and principles in which he came to believe after many years spent in studying these questions. He frequently referred to it as his "best and most lasting monument." Besides these works, Mr. Wells wrote a great number of pamphlets and magazine articles. Some of these attained a very wide circulation, and received much attention and commendation from foreign governments. That entitled "Our Burden and our Strength" was reprinted in England and translated into both French and German. Mr. Wells's chief claim to distinction lay in his combination of scholarship with ability to apply it to the solution of the practical problems of the statesman and the publicist. It is not an overstatement to say that he was chiefly to be credited with the system of finance which bore the United States Government safely through the dangerous economic conditions during and following the civil war, and enabled it to handle the enormous debt with such remarkable ease. The four volumes of the report of the special commissioner of revenue (1866-'69) are among the standard works of statistical science. Personally, Mr. Wells was of slight build and medium height. A simple but very earnest manner, combined with remarkable facility of expression, rendered him an extremely agreeable as well as convincing talker. During the last ten years of his life he suffered from an incurable organic disease, but despite his knowledge that he might die at any time, his intellectual work was continued to within a few weeks of his death, and his interest and insight regarding economic matters was sustained to the last. He was twice married, first in May, 1860, to Mary Sanford Dwight, and in June, 1879, to Ella Augusta Dwight, both of whom were daughters of James S. Dwight, of Springfield, Mass., and Elizabeth Lee, of Norwich, Conn. He had one

son by his first wife, David Dwight Wells, who survives him.

West, Joseph Rodman, soldier, born in New Orleans, La., Sept. 19, 1822; died in Washington, D. C., Oct. 31, 1898. He studied at the University of Pennsylvania, but was not graduated, leaving to serve as a captain of volunteers in the Mexican War. He went to California in 1849 and engaged in business. At the beginning of the civil war he entered the army as lieutenant colonel of the 1st California Infantry; served in the Southwest; was promoted brigadier general of volunteers, Oct. 25, 1862; and when honorably mustered out of the service, Jan. 4, 1866, was brevetted major general. He settled in New Orleans, where he became successively chief deputy United States marshal, auditor of the customs, and administrator of improvements. He was elected United States Senator from Louisiana as a Republican, and served from 1871 till 1877. From 1882 till 1885 he was commissioner of the District of Columbia.

Westcott, Edward Noyes, novelist, born in Syracuse, N. Y., Sept. 24, 1847; died there, March 31,

1898. He was a banker in his native city, and his only book, "David Harum: A Story of American Life," was issued soon after his death. It is a careful study of life in central New York, and the excellence of the workmanship and the fidelity of its descriptions have attracted much attention to it and given it a wide circulation.



Weston, Byron,

manufacturer, born in Dalton, Mass., April 9, 1831; died there, Nov. 8, 1898. He began to fit himself for the profession of civil engineer, but changed his plans and was apprenticed to the trade of paper making. So rapidly did he advance in this work that at the age of twenty he was superintendent of 7 large mills. Soon afterward he became interested financially in paper mills in Hartford, Conn., and in Dalton. It is said that he was the first to invent the process for making paper from wood pulp. In 1862 he raised a company for the 49th Massachusetts Volunteers, became its captain, and served till the end of the civil war. He served a term in the State Senate. In 1879 he was elected Lieutenant Governor of Massachusetts, John D. Long being the Governor. He was a generous benefactor of Williams College, notably in the gift of its athletic field, and that college conferred on him the honorary degree of master of arts.

White, George G., illustrator, born in Philadelphia, Pa., in 1830; died in New York city, Feb. 24, 1898. He was educated at Girard College. During the gold fever he went to California; later, spent some time in South America, and in 1863 came to New York city. He worked as a war correspondent for "Frank Leslie's Illustrated Newspaper," and after the war opened a studio. He made a specialty of illustrating schoolbooks and novels.

Wikoff, Charles A., soldier, born in Easton, Pa., March 8, 1837; died near Santiago, Cuba, July 1, 1898. He enlisted in the civil war as a private in the 1st Pennsylvania Infantry, April 20, 1861; was appointed 1st lieutenant, 15th Infantry, regular army, May 14, 1861; promoted captain, Aug. 15,

1864; transferred to 24th Infantry, Sept. 21, 1866; transferred to 11th Infantry, April 25, 1869; promoted major, 14th Infantry, Dec. 8, 1886; lieutenant colonel, 19th Infantry, Nov. 1, 1891; and colonel 22d Infantry, Jan. 28, 1897. He took part in the battles of Shiloh, Chickamauga, and Missionary Ridge during the civil war. At the battle before Santiago, July 1, 1898, he commanded the 3d brigade of the 1st division, 5th Army Corps, and was killed while superintending the fording of San Juan river by his brigade. His body was brought to the United States and interred in Easton, Oct. 21, and the military camp on Montauk, Long Island, was named in his honor.

Wild, John, actor, born in Manchester, England, Dec. 29, 1843; died near Troy, N. Y., March 9, 1898. He was brought to New York city by his parents, who settled there in 1845. He was employed in a grocery in 1855, became a newsboy, and subsequently was driver of a passenger stage in Harlem. About 1859 he became a negro minstrel, and in 1860 he was engaged with a company that occupied No. 444 Broadway. He came at once into favor as a delineator of the negro of the Thompson Street type, and, with the exception of a few engagements in Philadelphia, he remained for thirty years "on Broadway," the most popular black-face comedian of the country. On Jan. 28, 1878, at the Theater Comique, 514 Broadway, New York, he began his association with Edward Harrigan and Tony Hart as Capt. Simpson Primrose, the dandy coon, in the first of the great series of "Mulligan Guard" comedies of New York's good-natured lower life. The only departure from black-face comedy that he had to make in the Mulligan plays was "Lemons," as a tramp in "The Mulligan Guard's Picnic." In January, 1889, he began a starring tour in a play which it was thought was suited to his quaint humor. This was called "Running Wild." It lasted but a few months, and in the autumn of the same year Wild was playing again in New York. On Dec. 29, 1890, he again joined Edward Harrigan at Harrigan's Theater, now the Garrick, in West Thirty-fifth Street, near Broadway, and played "Salvator Magnus" in "Reilly and the 400." He remained with this theater until the vogue of Harrigan comedies declined. His last appearance on the stage was at Proctor's Twenty-third Street Theater in January, 1898.

Wilkinson, Melville C., soldier, born in New York, Nov. 14, 1835; died on Bear island, Minn., Oct. 6, 1898. He entered the volunteer service as 1st lieutenant, 23d New York Infantry, May 16, 1861; resigned, Nov. 7, 1861; commissioned 1st lieutenant, 107th New York Infantry, July 28, 1862; promoted captain, Aug. 9, 1862; resigned, Jan. 26, 1863; commissioned 1st lieutenant in the Veteran Reserve Corps, Aug. 13, 1863; promoted captain, Dec. 10, 1863; and was honorably mustered out of the service, June 30, 1866. He entered the regular army as 2d lieutenant, 42d Infantry, July 28, 1866; was transferred to the 6th Infantry, April 22, 1869; unassigned, June 28, 1869; assigned to 3d infantry, Aug. 3, 1870; promoted 1st lieutenant, Jan. 1, 1871; and captain, April 24, 1886. He was brevetted major, Feb. 27, 1890, for service in the war with the Idaho Indians in 1877. He was sent from Fort Snelling, Minn., to Leech Lake in October, 1898, to quiet the Pillager Indians, and in the skirmish that took place was shot dead.

Willard, Frances Elizabeth, social reformer, born in Churchville, N. Y., Sept. 28, 1839; died in New York city, Feb. 18, 1898. She was graduated at the Northwestern Female College, Evanston, Ill., in 1859; became Professor of Natural Science in her alma mater in 1862; and subsequently taught in the Pittsburg Female College and was principal of

Genesee Wesleyan Seminary, Lima, N. Y. In 1868-'70 she traveled in Europe and the East, spending a part of her time in studying in Paris, Berlin, and Rome. From 1871 till 1874 she was Professor of Aesthetics in Northwestern University and dean of the Woman's College, where she developed an original system of self-government. She left her profession in 1874 to identify herself with the Woman's



Christian Temperance Union. She was corresponding secretary of the national organization from 1874 till 1878, and in 1879 was elected president, which office she held till her death. She succeeded her brother in 1879 as editor of the Chicago "Evening Post," but resigned a few years later to give her entire attention to temperance work. She became

a member of the Executive Committee of the Prohibition party in 1882, and in 1883 founded the World's Christian Temperance Union on the same plan as that of the United States. In 1886 she was placed at the head of the White Cross movement in all her unions, and in 1888 was elected president of the American branch of the International Council of Women. In 1893 she was at the head of the Women's Committee on Temperance Meetings at the World's Columbian Exposition. Miss Willard received the degree of LL. D. from Ohio Wesleyan University in 1894. She was editor-in-chief of "The Union Signal," contributed frequently to magazines, and published "Nineteen Beautiful Years" (1868); "Hints and Helps for Woman's Christian Temperance Workers"; "Woman and Temperance," (1883); "How to Win" (1886); "Woman in the Pulpit" (1888); "Glimpses of Fifty Years" (1889); "A Year's Bright Chain" (1890); "A Classic Town, Evanston" (1891); "A Wheel within a Wheel" (1895); and, with Mary A. Livermore, "A Woman of the Century" (1893).

Williams, John Stuart, soldier, born in Montgomery County, Ky., in 1820; died near Mount Sterling, Ky., July 17, 1898. He was graduated at Miami University, Oxford, Ohio, in 1840; studied law in Paris, Ky.; and was admitted to the bar of Kentucky. He served in the Mexican War, first as captain and afterward as colonel. In the famous victory gained by Gen. Scott over Santa Anna, April 18, 1847, he led a gallant charge, which caused the sobriquet of "Cerro Gordo" to be applied to him. He was in command of the 4th Kentucky Volunteers from Oct. 4, 1847, till July, 1848. After the Mexican War he became a farmer on his estate in Montgomery County, traveled in Europe, Asia, and Africa, and was present at the siege of Sebastopol. He raised a brigade for the Confederate army and was commissioned brigadier general in 1862. He was elected a member of the Kentucky Legislature of 1851, and again in 1873; was defeated for the nomination for Governor in 1875; was a Tilden elector in 1876; and served as United States Senator from 1879 till 1885. From that time he was engaged in farming, promoting railways in Kentucky, and improving land in Florida.

Winfield, Charles Hardenburg, lawyer, born near Port Jervis, N. Y., Nov. 8, 1829; died in Jersey City, N. J., March 9, 1898. He was graduated at

Rutgers College in 1852, studied law in Jersey City, and was admitted to the bar in 1855. He was elected a member of the New Jersey Senate in 1865 and served one term. He was appointed Prosecutor of the Pleas for Hudson County in 1883, reappointed in 1888 and again in 1893, and resigned the office, Feb. 4, 1898. He was the author of "History of Land Titles" (1872); "History of Hudson County" (1874); "Adjudged Words and Phrases" (1882); and "The Founding of Jersey City" (1892).

Wingfield, John Henry Ducachet, clergyman, born in Portsmouth, Va., Sept. 24, 1833; died in Benicia, Cal., July 27, 1898. He was graduated at William and Mary College in 1853, and after being principal of the Ashley Institute, at Little Rock, Ark., several years was ordained deacon in 1858. After serving as rector in Petersburg, Va., and elsewhere he became rector of Trinity Church, San Francisco, in 1874, and in the same year was elected Missionary Bishop of Northern California. His consecration took place on Dec. 2, 1874, and in addition to his episcopal duties he accepted in 1875 the rectorship of St. Paul's Church, Benicia. In 1869 he received the degree of D. D. from his *alma mater*, and in 1874 that of LL. D.

Wise, Daniel, clergyman, born at Portsmouth, England, Jan. 10, 1813; died Dec. 19, 1898. He came to the United States in 1832, entered the ministry of the Methodist Episcopal Church, and filled various pastorates from 1837 to 1852. From 1838 to 1844 he edited the first Methodist Sunday-school paper in America, and he was editor of "Zion's Herald" in 1852-'56. From the latter year till 1872 he edited the Sunday-school publications of the Methodist Episcopal Church. His numerous writings, some of which appeared under the pseudonyms Francis Forrester, Esq., and Laurence Lancelwood, are largely, though not entirely, intended for young people. They include "Life of Lorenzo Dow" (1840); "History of London" (1841); "Personal Effort" (1841); "McGregor Farm" (1845); "Cottage on the Moor" (1845); "Infant Teacher's Manual" (1846); "Lovest Thou Me?" (1846); "Guide to the Saviour" (1847); "Path of Life" (1848); "Benevolent Traveler"; "Christian Love"; "Devout Soldier"; "Life of Ulrich Zwingli" (1850); "Bridal Greetings" (1850); "Young Man's Counselor" (1850); "Young Lady's Counselor" (1851); "Aunt Effie" (1852); "My Uncle Toby's Library" (12 vols., 1853); "Living Streams" (1854); "Precious Lessons" (1854); "Popular Objections to Methodism considered"; "Sacred Echoes"; "Swiss Reformer"; "Voice from the Vale of Death"; "Willow Grove Cottage"; "Methodism in Earnest" (1856); "Pleasant Pathways" (1859); "Revival Miscellanies"; "Voice from the Main Deck"; "Sidney de Gray" (1865); "Nellie Warren" (1866); "Lindendale Stories" (1868); "Little Peachblossom" (1873); "Hollywood Series" (1873); "Glen Morris Stories" (1874); "The Squire of Walton Hall" (1874); "The Story of a Wonderful Life" (1874); "Our King" (1875); "Summer Days on the Hudson" (1875); "Vanquished Victors" (1876); "Winwood Cliff Series" (4 vols., 1876-'80); "Oscar's Boyhood" (1879); "Heroic Methodists of the Olden Time" (1882); "Our Missionary Heroes and Heroines" (1884); "Boy Travelers in Arabia" (1885); "Men of Renown" (1886); "Young Knights of the Cross" (1887); and "Remarkable Women" (1887).

Woodbury, Charles Levi, jurist, born in Portsmouth, N. H., May 23, 1820; died in Boston, Mass., July 1, 1898. He was educated in Washington, D. C., studied law, and was admitted to the bar of the District of Columbia. He went to Alabama in 1840, and practiced there four years. In 1845 he removed to Boston, Mass., where he resided till his

death. In 1857 he was appointed United States district attorney for Massachusetts, and in 1870-'71 was a member of the Massachusetts Legislature. Mr. Woodbury was one of the compilers of "Woodbury and Minot's Reports," in three volumes; editor of the second and third volumes of "Levi Woodbury's Writings" (Boston, 1852); and was also the author of several pamphlets on international diplomatic questions.

Woodruff, Wilford, president of the Mormon Church, born near Hartford, Conn., March 1, 1807; died in Salt Lake City, Utah, Sept. 3, 1898. He received a common-school education in Farmington, Conn., and was brought up under the influences of the Orthodox Congregational Church. In 1833 he became a convert to Mormonism, and was ordained a priest. In 1839 he was ordained one of the Twelve Apostles, with the special designation "the Banner of the Gospel." During his first six years' connection with the Mormons he had traveled with the main body, or with detachments, through Arkansas, Tennessee, Kentucky, Ohio, and Illinois. In 1840 he made a missionary tour of England. In 1842 he joined the Mormons at their chief rendezvous, in Nauvoo, Ill., where he was appointed a member of the city council. In 1847 he joined in the hegira to Utah, and he was the last survivor of that band. In 1850 he was elected a Senator of the provisional State of Deseret. On the death of Brigham Young, in 1877, John Taylor succeeded to the presidency of the Church, and Woodruff was made president of the Twelve Apostles, which office he held through life, and when President Taylor died, in 1887, Woodruff became president of the Church. He was also president of St. George's Temple, in southern Utah, which was completed and dedicated by Brigham Young shortly before his death. President Woodruff from 1875 was the historian and general recorder of the Church. He took a great interest in all the jubilees and anniversaries of the Church, and he was the central figure at the pioneer jubilee in 1897. For twenty-two years he was a member of the Legislature of Utah. He was a practical polygamist till polygamy was forbidden by a law of the United States, and just before the admission of Utah as a State he issued a manifesto declaring his intention to abide by the law, and advising all Mormons to do the same. The Twelve Apostles unanimously approved the manifesto. He was a man of great physical endurance. It is said that he had traveled in Great Britain and in 23 States and 5 Territories of the Union, and that from the beginning to the end of his ministry he had covered 172,369 miles, had held 7,665 meetings, had delivered 3,226 discourses, and had organized 51 branches of the Church and 7 preaching stations.

Wright, Charles Barstow, financier, born in Wysox, Pa., Jan. 8, 1822; died in Philadelphia, Pa., March 24, 1898. He began business while a mere boy, at the age of twenty was a successful banker and merchant in Braddock, and in 1843 went to Chicago, where within two years he amassed a small fortune in real estate. In 1863 he was actively engaged in the development of the petroleum interests of Pennsylvania, took a prominent part in the construction of the Philadelphia and Erie Railroad, and later became general manager of the united railway companies in the oil regions. He became a director of the Northern Pacific Railroad in 1870, and in 1874, as its fourth president, assisted in its reorganization and the completion of the road to Puget Sound. He resigned the presidency in 1878, remaining a director. He took an active part in the founding of the city of Tacoma, and endowed the Annie Wright Seminary for girls and the Washington College for boys.

Wylie, Theodore William John, clergyman, born in Philadelphia, Pa., Oct. 3, 1818; died there, June 11, 1898. He was graduated at the University of Pennsylvania in 1836, was ordained to the ministry, and became associated with his father in the pastorate of the First Reformed Presbyterian Church of Philadelphia, succeeding him in 1852. He was corresponding secretary of the Board of Missions of his Church from 1843 till 1849, and professor in the Reformed Presbyterian Theological Seminary, 1847-'51, 1854-'57, and 1859-'61. He received the degree of D. D. from the University of New York in 1859. He edited "The Juvenile Missionary Intelligencer" (1835-'37); "The Missionary Advocate" (1838-'41); and "The Banner of the Covenant" (1845-'55); and published "An English, Latin, and Greek Vocabulary" (1839); "The God of Our Fathers" (1854); and "Washington a Christian" (1862).

Yandell, David Wendell, physician, born near Murfreesboro, Tenn., Sept. 12, 1826; died in Louisville, Ky., May 2, 1898. He was graduated at the University of Louisville in 1846; studied two years in Europe, and began to practice medicine in 1848. He became a professor in the University of Louisville in 1859, and was a medical director in the Confederate army from 1861 till 1866. In 1870 he established "The American Practitioner." He was elected president of the American Medical Association in 1871, and was appointed Professor of Surgery in Indiana Medical College in 1874.

Zachos, John C., educator, born of Greek parents in Constantinople, Turkey, in 1820; died in New York city, March 20, 1898. He was brought to the United States by Dr. Howe, studied at Amherst College, and was graduated at Kenyon College, Ohio, in 1840. He studied medicine in Cincinnati, but after completing his course he adopted literature as a profession, and in 1853 became Professor of English in Antioch College, Yellow Springs, Ohio. He served from 1862 till 1864 as acting surgeon in the National army, being assigned to the superintendency of Paris Island, in Beaufort Bay, S. C. He occupied the Unitarian pulpit in West Newton, Mass., for two years, and in 1866 became Professor of Rhetoric in the Meadville, Pa., Theological School. In 1871 he came to New York city, and was appointed curator of Cooper Union, which office he held till his death. Mr. Zachos was one of the founders of the Ohio Society of New York city, and also of the Beta Theta Pi Society. He published "A New American Speaker" (1852); "Analytic Elocution" (1861); "New System of Phonic Reading" (1863); and "Phonic Primer and Reader" (1864); and edited "A Sketch of the Life and Opinions of Peter Cooper" (1876).

Ziegler, Henry, educator and author, born in Center County, Pa., Aug. 19, 1816; died in Selinsgrove, Pa., Nov. 25, 1898. He was graduated at Pennsylvania College, Gettysburg, in 1841, studied theology there, and was ordained by the Pittsburg Synod. His first pastorate was at Selinsgrove, and he assisted also the pastors at Sunbury and Lewisburg, and served the congregation at Liverpool. In 1845-'50 he labored in the Pittsburg Synod as traveling missionary, having as his territory Crawford, Venango, Mercer, Beaver, Butler, and Allegheny Counties. He was pastor at Williamsport, Pa., in 1850-'53, and organized the first English Lutheran congregation of that city. He was agent of the parent education society of the General Synod in 1853-'55 and was pastor in Clinton and Center Counties in 1855-'58. In the latter year he became Professor of Theology in Missionary Institute (now Susquehanna University), Selinsgrove, Pa., and he held that chair until 1881, when failing health compelled him to retire. For many years he was

the only instructor of theology in the institution. He prepared his own text-books, three of which ("Catechetics," "The Pastor," and "The Preacher") have been published; three others ("Natural Theology," "Evidences of Christianity," and "Dogmatic Theology") were printed only for the use of the students; while others were copied by the students from his manuscripts. One hundred students were trained by him for the ministry. He was a frequent contributor to Church periodicals, and was the author of numerous books, including "Luther's Small Catechism" (Philadelphia, 1887) and "Heavenly Recognition" (York, Pa., 1895).

OBITUARIES, FOREIGN. **Abrantes,** Duke d', a Spanish statesman, born in 1843; died in Madrid early in May, 1898. As Marquis de Sardoal he was elected a Deputy in 1867, and warmly embraced democratic and revolutionary principles in 1868, becoming Alcalde of Madrid in 1869. Affiliating with the Radical party, he continued to preside over the municipality under King Amadeus, and when the republic was declared in 1873 he rallied to that form of government, but gave his adherence to the monarchy after the restoration, and in 1883 became Minister of Fomento in the Cabinet of Posada Herrera.

Ahmad Khan, Sir Saliyd, an Indian statesman, born in Delhi in 1817; died in Allahabad in March, 1898. He was descended from a family tracing its lineage to the Prophet, which entered India from Herat with the Mogul conquerors and held high offices in the court of the emperors at Delhi. In 1837 he entered the British service after studying law, and was connected with the tribunals until he retired. While at Bijnor, in Rohilkand, at the time of the mutiny, he saved all the British in the station from massacre by the exercise of great courage and tact. He was rewarded for his fidelity and devotion to the British in this critical period, and after the mutiny he gave his whole mind to the cause of Mohammedan education, perceiving that his coreligionists could not take the part in Indian Government which the British were disposed to assign to them unless they equipped themselves intellectually as the Hindus of Bengal were doing. He founded a society for the translation of books on history and modern science, which grew into a permanent institute at Aligahr, the town where he resided. In connection with this he established a printing office and published a journal. In 1873 he founded an Anglo-Oriental college at that place for the education of Mohammedans of the higher classes. In defense of his religion he was an able dialectician, and frequently contributed articles to English newspapers and magazines. In answer to his friend Sir William Muir's "Life of Mahomet" he published in 1870 "A Series of Essays on Mahomet." Retiring from the magistracy in 1876, he was appointed in 1878 a member of the Viceroy's Council by Lord Lytton, and was reappointed by Lord Ripon. He received the order of the Star of India in 1888. He assailed the Indian National Congress from its inception, keeping Mohammedans generally from going into that movement, and was regarded as the political leader of the whole Mohammedan community of India.

Alvary, Max (Achenbach), singer, born in Düsseldorf, Germany, in 1856; died in Grosztabarz, Thuringia, Nov. 8, 1898. He was the son of Andreas Achenbach, a noted German painter. In his early youth he was passionately devoted to music, and as a member of local singing societies and choirs of his native city became celebrated for the strength and purity of his voice. He determined to adopt the lyric stage, and put himself under the tutelage of Lamperti in Italy. He continued his studies with Julius Stockhausen at Frankfort, and sang in

concert and oratorio. His *début* in opera was made in Weimar in 1882, in the part of Stradella at the Court Theater. For two years he continued to grow popular in Germany, and in 1884 he was engaged for the Metropolitan Opera House, New York city, where he opened that autumn as Don José to Lilli Lehman's Carmen. During two seasons in New York he was received with favor, and in this time he played Adolar in Weber's "Euryanthe," first produced Dec. 23, 1887. But when Wagner's "Siegfried" was produced Alvary's rendition of Siegfried struck a tremendously magnetic chord of public favor. He was Siegfried indeed, the very realization of Wagner's imaginings. New York press and public trumpeted the young tenor's triumph. When he closed his engagement in 1889 an ovation such as had never been witnessed in America attended his last appearance. He was received in Europe as a great singer upon the faith of the American verdict. At Bayreuth he sang Tannhäuser and Tristan, and repeated his American successes in the principal cities of his native land. In the spring of 1895, he returned to New York as a member of Walter Damrosch's German Opera Company. During this engagement he sang Tristan in "Tristan and Isolde" for the first time in the United States. He again came to New York with Damrosch in 1896. While playing an engagement at Mannheim, Germany, in 1895, Alvary fell through a trap that had been negligently left open on the stage during a rehearsal, and suffered internal injury, to which he was at first somewhat indifferent. It was not, indeed, until the following year, during his engagement in New York, that he began to be alarmed. An operation was performed, but it was discovered that cancer had taken seat at the place of injury. He then retired to his home in Thuringia, where, after a series of expensive but hopeless operations which consumed his savings, he died in an agony of pain intensified by the dependence upon him of a widow and nine children.

Anderson, Sir William, an English engineer, born in St. Petersburg, Jan. 5, 1835; died in London, Dec. 11, 1898. He took the highest honors in the commercial school of St. Petersburg, and in 1849 went to London to take the course in applied science at King's College, after completing which he was apprenticed to Sir William Fairbairn in 1851. As a member of a firm in Dublin, from 1855 till 1864, he was engaged in building railroad bridges, and made in connection with this work a study of diagonally braced girders that gave him note in the engineering world. He was the head of the firm of Easton & Anderson, of Erith, when in 1889 he was appointed director-general of the British ordnance factories. In this public post he has had legal controversies with several inventors of high explosives.

Aveling, Edward Bibbins, an English journalist, born in Stoke-Newington, Nov. 29, 1851; died in London, Aug. 4, 1898. He was of Irish descent, was educated at University College, London, studied medicine, went to Cambridge as Prof. Michael Foster's assistant in physiology, and was afterward Professor of Chemistry and Physiology at New College and of Comparative Anatomy at the London Hospital. In 1882 he was a member of the London School Board. He gave up his profession to advocate the doctrines of socialism as propounded by Karl Marx. He became an editor, writer, and lecturer in this cause, and a leader of the social democrats of Great Britain. He wrote books and plays with political motives, and many text-books and other works designed to popularize Darwinian scientific theories and the politico-economic doctrines of Marx. He also translated the writings of Continental socialists. In 1886 he visited the United

States in company with Wilhelm Liebknecht, and lectured in the principal cities. He left his wife in England, and was accompanied by Eleanor Marx (daughter of Karl), who was an effective public speaker as well as an attractive woman, and was very earnest in disseminating her father's ideas. His wife died, and in 1898 he married again, whereupon Miss Marx committed suicide. It was said that Aveling procured the poison for her, and there was to be a legal investigation, but his own death, from natural causes, followed so soon as to prevent it.

Baden-Powell, Sir George S., an English economist, born in Langton, Kent, in 1847; died in London, Nov. 20, 1898. He was educated at St. Paul's School and Balliol College, Oxford, where he was graduated with honor in 1876, became private secretary to the Governor of Victoria, special commissioner to the West Indies in 1882, Sir Charles Warren's assistant in Bechuanaland in 1884, a member of the Malta Commission in 1887, Bering Sea Commissioner in 1891, and member of the joint commission at Washington in 1892. He represented a division of Liverpool in Parliament from 1885. He published "New Homes for the Old Country," "Absorption of Small States by Large," "Protection and Bad Times," "State Aid and State Interference," and numerous articles on colonial, financial, and economic subjects.

Ball, John Thomas, an Irish jurist, born in Dublin in 1815; died in Dundrum, March 17, 1898. He was graduated from the University of Dublin in 1836, was called to the Irish bar in 1840, attained a high reputation in the equity and common law courts and as a civilian in the ecclesiastical courts, and was made Queen's advocate in 1865. In that year he was defeated as the Liberal candidate for Parliament in the representation of the University of Dublin, but in 1868 he was elected by the votes of Conservatives who wished to secure his services in defense of the Irish Church, then threatened with disestablishment. Mr. Disraeli, on becoming Prime Minister, appointed Dr. Ball Solicitor-General, and afterward Attorney-General. Mr. Gladstone soon returned to power and carried through his Irish Church bill, which Dr. Ball from the front bench of the Opposition succeeded in having modified in some important particulars. Lord Beaconsfield re-appointed him Attorney-General in 1874, and in the following year made him Lord Chancellor of Ireland, which office he held till Mr. Gladstone returned in 1880.

Barrow, John, an English author, born in 1808; died at Chipping Norton, Oxfordshire, in December, 1898. He was a son of Sir John Barrow, the arctic explorer, and was himself a noted traveler, but usually in more temperate regions than those affected by his father. His published works comprise "Excursions in the North of Europe" (1835); "Visit to Iceland" (1835); "Tour around Ireland" (1836); "Tour in Austria, Lombardy, Bavaria, etc." (1840); "Memoir of Sir John Barrow"; "Life of Sir Francis Drake" (1843); "The Naval Worthies of Elizabeth's Reign" (1845); "Life of Admiral Sir William Sydney Smith" (1848); "Expeditions on the Glaciers" (1864); and "Mountain Ascents in Westmoreland and Cumberland" (1866).

Beardsley, Aubrey, an English artist, died in Mentone, March 16, 1898. Without receiving a regular artistic training, he developed a genius in black and white, a faculty for weaving a pattern with the pen, a power in the treatment of the line partaking of the qualities of Japanese art, an imaginative and grotesque symbolism and weird fantastic idealism that were peculiarly his own and had a far-reaching influence on contemporary art, not alone in England, but in Germany, Austria, and the

United States. His work was first seen in the "Yellow Book" and the "Savoy Magazine," after which he illustrated books of poetry and gave direction to the development of art in the production of advertising posters, analogous to the work of French artists who likewise had drawn inspiration from the Japanese.

Bessemer, Sir Henry, an English inventor, born in Charlton, Hertfordshire, Jan. 19, 1813; died in London, March 15, 1898. He was the son of an artist who was a member of the French Academy. All his life he was a prolific and assiduous inventor. One of his first successful inventions was gold paint, which he compounded with his own hands in his house at St. Pancras in order to keep the process secret. At the time of the Crimean War, when the study of guns and projectiles engaged the attention of many ingenious minds, he worked on a method of giving a rotary motion to the shot without rifling the barrel. This attracted the attention of the Emperor Louis Napoleon, but the results that he obtained only convinced him that it would be useless to work on projectiles until guns could be made stronger and better. Therefore he gave himself up to the study of gun metal, erecting shops at St. Pancras in which to carry on his experiments. Abandoning all other business, at the end of two years he struck upon the central principles of the Bessemer process for converting cast iron into cast steel. Before that the decarbonization of iron could only be effected by the tedious, difficult, and unhealthful process of puddling, which consisted in turning and kneading great molten masses at the end of long rods until every part was exposed to the air. Bessemer's idea was to force a blast of air through the molten metal until it was sufficiently decarbonized. After he had read a paper before the British Association in 1856 descriptive of his process, a number of firms bought the right to use it, but it was not yet perfect, and after others, who had experimented on what they supposed to be his method, had pronounced it a failure, they took no pains to apply and develop the invention. He, however, set to work to remove its defects, and after two more years of costly experimentation, he produced steel that could not be distinguished from that made by the old process. The ironmasters declined to give any more attention to the subject, having made up their minds that the invention was a failure. Finding no one willing to take it up, he determined to go into the manufacture himself. His steel works were built at Sheffield, and gradually the product was brought upon the market, until the steelmakers of Sheffield suddenly became aware that they were being undersold £20 a ton, and rushed to obtain licenses at a higher price than was demanded before. At the same time the manufacturing business of Henry Bessemer & Co. went on, paying in profits six times the invested capital every year of the fourteen during which the partnership existed. In royalties the inventor received over £1,000,000. Martien's patent, which covered a process similar to his, though proceeding from a false theory, he bought up, and Mushet's idea of restoring carbon with manganese to the completely decarbonized iron by mixing spiegeleisen with it he made use of, and acknowledged by paying an annual allowance to that inventor, although his suggestion was not patentable. In 1865 he showed at the meeting of the British Association samples of steel that he made with recarbonization or the admixture of manganese by arresting the process of decarbonization at exactly the right stage. Bessemer was an adept in hydraulics, as he used delicate hydraulic machinery in moving the great vessels of molten iron, and in his earlier experiments on projectiles he had employed hydraulic power to shape the shot.

He invented a suspended saloon for passenger steamers for the avoidance of seasickness, which was controlled by a hydraulic apparatus. In association with Sir E. J. Reed he had a great paddle-wheel steamer made on this plan to run across the English Channel. In the first trip in 1875 it ran into the pier at Calais, and in the following year the vessel was sold and the swinging cabin was taken out, as it had not proved successful. Sir Henry Bessemer, who received the honor of knighthood in 1879, retired from active business on the advice of his physician. He then returned to mechanical invention as a recreation and employed his time in making reflecting telescopes. He proposed to make reflectors 8 or 10 feet in diameter by mounting sheets of plate glass in heavy iron castings to which they would be held fast by atmospheric pressure, the surface of both being perfectly flat and the air between them pumped out. The surface of the reflector he expected to shape into the right curve by means of a great lathe. He also invented hydraulic apparatus for adjusting telescopes.

Black, William, an English novelist, born in Glasgow, Scotland, in November, 1841; died in Brighton, England, Dec. 10, 1898. In 1877 he wrote a short autobiographical sketch, which is as follows: "I am informed, on what I hold to be excellent authority,



that I was born in Glasgow on either Nov. 13 or 15, 1841—the precise day is not a point likely to drive the world into convulsions of dispute. I never had any systematized education to speak of, but I managed to pick up a vast array of smatterings—a crude and confused jumble of hydraulics, Latin verbs, vegetable physiology, Czerny's exercises

for the piano, and a dozen other things; a perhaps not unnatural outcome of all which was that I found myself engaged, at one and the same time, on a translation of Livy, which was to excel in literary accuracy anything the world had ever seen before; on the formation of a complete collection of British flowering plants—the grasses and cryptogams were a trifle beyond me; and on the construction—on paper—of a machine which should demonstrate the possibility of perpetual motion. The translation of Livy did not get beyond half a book or so; that monument of learning is at the disposal of any publisher who will pay for it. The perpetual-motion machine was never forwarded to the Royal Society, but its phantom on paper at least succeeded in puzzling a good many worthy persons, who could only bring against it the objection that in time friction would destroy the mechanism—a puerile and vulgar argument. The scant herbarium remains to this day; a poor enough treasure house of botanical lore, but a rich treasure house of memories of innumerable and healthful wanderings by hill and moorland and seashore, through the rain and sunlight and beautiful colors of the western Highlands. But the chiefest of my ambitions was to become a landscape painter, and I labored away for a year or two at the Government School of Art, and presented my friends with the most horrible abominations in water color and oil. As an artist I was a complete failure, and so quali-

fied for becoming in after life—for a time—an art critic. My first essay in literature took the form of a series of elaborate articles on the chief writers of the day, and these I forwarded anonymously to the editor of a Glasgow daily newspaper, which is now dead. They appeared, so far as I can recollect, in large type and in a prominent position; and no doubt the public came to the conclusion that there was something gravely wrong about this or that theory of Mr. Ruskin, or some hidden virtue never before discovered in this or the other passage of Mr. Charles Kingsley, when this important critic pointed these things out. I think I was then about seventeen or eighteen. I do not know whether Mr. Ruskin ever amended his ways in obedience to my serious remonstrances, and I am afraid Mr. Carlyle never heeded the protests I made, in Carlylese, against Carlylese. But the public was doubtless impressed. My next departure was a series of sketches of rambles in the country, written in imitation of Christopher North. These were contributed to 'The Weekly Citizen,' then and now conducted by Mr. James Hedderwick, author of 'Lays of Middle Age,' and a charming essayist. I subsequently joined the staff of 'The Citizen' and went through the ordinary curriculum of becoming in turn dramatic critic, musical critic (I could play 'The Blue Bells of Scotland' with both hands), reviewer, and assistant subeditor, while on one occasion—though I am really ashamed to make the confession—I wrote a leading article on the American civil war, and severely condemned the miserable tactics of a particular general, I forget whom. I left Glasgow for London in 1864, and very soon became a facile manufacturer of leading articles. In 1866 'The Morning Star' sent me out as its special correspondent to describe the Prusso-Austrian war, my chief qualification for the task being that I knew about enough German to enable me to ask for a railway ticket, and that I had attentively studied the wars of the Jews in the history of Josephus, that being the only secular book which we children were allowed to read of a Sunday evening. I never saw any fighting, but I managed to get forward in time to see the dead bodies lying on the field of Königgratz—and a very pretty sight that was. My subsequent connection with journalism may be briefly summed up. I was for about a year editor of 'The London Review,' and afterward, for a short period, of 'The Examiner.' Then for three or four years I was assistant editor of 'The Daily News.' My career as a journalist ended in 1875. Now I come to my novels. I had written and published in Glasgow a short story in one volume; there was nothing in it. In 1868 I published 'Love or Marriage' in three volumes. Not having read this story since, I have only a vague impression that it aimed at the reconstruction of the whole social system; that it was largely flavored with Feuerbach's 'Essence of Christianity,' and that it deified the Prussian nation. A young author who has no established public to whom he directly appeals naturally turns to the middlemen—the reviewers—to learn if there is any merit in his book. He can not, of course, accept the judgment of his friends, because his friends—apart from the inevitable mild praise—are generally possessed by the delusion that they know the originals of his characters, and are otherwise cleverly familiar with the 'materials' which he has 'worked up.' But I never could quite make out what the reviewers thought of 'Love or Marriage,' for one said it was a striking example of the destructive effect on fiction of Herbert Spencer's philosophy, and another said that it conveyed a high moral lesson in showing the awful results in allowing a skeptical person to be introduced into an orthodox family.

'In Silk Attire' followed. This was a combination of theatrical life with life in a Black Forest village; the sketches of deer shooting are very well done, but the book obtained a greater success than it deserved. The opposite was the case with 'Kilmenny'—a sort of Alton-Locke story, though I tried to cure my hero of his *Weltschmerz* by removing him into the freer and more joyous life of an art student in Bavaria. 'A Daughter of Heth' was published anonymously—for various reasons—in 1871, and I think the book must have been pretty widely read, for I do not know how often I have seen it since, under various titles and guises, with the name of some amiable and industrious lady on the title-page. 'The Strange Adventures of a Phaeton'—a book in which there is nothing strange but the total absence of adventures—was founded on a driving excursion I made from London to Edinburgh. There was a thread of romance running through its pages, but all the same it may be taken—and has been taken, I am glad to say, though mostly by Americans—as a sufficiently accurate guidebook to the villages, roads, and inns to be met with on that delightful journey. 'A Princess of Thule' appeared in 1873, and since that time has not failed to puzzle a good many people on both sides of the Atlantic, they being apparently as ignorant (to take modern literature only) of Thompson as of Whittier, with regard to the pronunciation of its title. The controversy raged most fiercely in America, and the contagion would seem to have spread into Canada, for the other day I got a pamphlet containing a number of poetical contributions toward the study of this recondite question which had been written by members of the Canadian House of Commons and presented to Lord Dufferin. 'Three Feathers' was my next novel. 'The Saturday Review' said that this was a very good book, and 'The Spectator,' appearing on the same day, said it was a very bad one, and when I asked my friends which I was to believe they said, 'Of course, "The Saturday Review."' But the fact is I had by this time been studying the craft of story-telling for about ten years, and I began to despair of obtaining any enlightenment from the young gentlemen who, fresh from college, were equally ready to lecture a Chancellor of the Exchequer about his ignorance of the first principles of taxation and to prove to an African traveler that his statements of what he actually saw were preposterously absurd. I could not blame these young men, for I had a painful recollection of my own escapades in that direction; but I gave up all hope of learning anything from them about my own business. My last published novel, 'Madcap Violet,' already appears to be most popular of these books of mine, as it undoubtedly contains the best work of which I am capable. But as to the 'something serious' which Mr. Carlyle once suggested I should write—in offering this cruel hint he did not know how he was revenging himself on me for my juvenile impertinence in praising him—who can tell? My more intimate friends—one half of whom seem to consider my novels facetious and trivial, the other half complaining of them as far too gloomy and tragic—appear to agree in thinking that there ought to be something 'beyond these voices.' Perhaps I shall satisfy them in time. Perhaps I shall end as I began—with a series of suggestions for the better government of the universe." Mr. Black was married and had several children. The family had a house in London, one at Oban, Scotland, and one in Brighton, where he spent most of his time in his maturer years, and did all his writing. His study was at the top of the house, where he retired to work two hours after breakfast and one hour after dinner.

He was devotedly fond of his native land, and has written fine descriptions of its scenery. Outdoor life and sports were greatly to his liking, and he did much traveling. Besides the books already mentioned, Mr. Black wrote "James Merle: An Autobiography" (1864); "Mr. Pisistratus Brown, M.P., in the Highlanders" (1871); "The Monarch of Mincing Lane" (1871); "The Maid of Killeena" (1874); "Lady Silverdale's Sweetheart" (1876); "Green Pastures and Piccadilly" (1877); "MacLeod of Dare" (1878); a biography of Oliver Goldsmith (1880); "White Wings: A Yachting Romance" (1880); "Sunrise: A Story of These Times" (1881); "The Beautiful Wretch" (1882); "The Four Macnicks" (1882); "The Pupil of Aurelius" (1882); "Shandon Bells" (1883); "Yolande" (1883); "Adventures in Thule" (1883); "Judith Shakespeare" (1884); "White Heather" (1885); "Wise Women of Inverness" (1885); "Stand Fast, Crag Royston" (1886); "Sabina Zembra" (1887); "The Strange Adventures of a House-boat," a sequel to the "Phaeton Adventures" (1888); "In Far Lochaber" (1889); "The New Prince Fortunatus" (1890); "Donald Ross of Heimra" (1891); "Handsome Humes" (1893); "Highland Cousins" (1894); "Briseis" (1896); and "Wild Eelin" (1898).

Bond, Sir Edward Augustus, an English librarian, born at Hanwell, England, Dec. 31, 1815; died Jan. 2, 1898. He was the son of the Rev. John Bond, then master of a large school at Hanwell, and was educated at the Merchant Tailors' School, London, and received in 1833 an appointment in the Public Record service. In 1837 he became an assistant in the manuscript department in the British Museum, and he was appointed keeper of the department in 1867. In 1878 he was made principal librarian of the museum, retiring from that office in 1888. It was due to his influence that the printing of the British Museum Catalogue was undertaken, a work now brought nearly to completion, and the introduction of the electric light into the reading room is also due to him. In 1879 he received the degree of LL.D. from Cambridge, and in 1885 he was made a C. B. The title of K. C. B. was conferred upon him the day before his death. He was the founder, with Mr. E. M. Thompson, of the Palæographical Society, and he edited, among other works, the speeches of Warren Hastings (London, 1859-'61).

Boudin, Eugène, a French painter, born in 1835; died in Deauville early in August, 1898. A love of painting came to him while contemplating the ocean, and on seeing his first efforts Troyon and Isabey counseled him to devote himself to art. Between 1853 and 1877 he exhibited numerous canvases which were not appreciated by the public at their worth. It was not till 1880 that dealers and amateurs began to seek the painter whom Corot had called the "king of skies." His subjects were taken mostly from the coasts of Normandy and the fields of Provence.

Brin, Benedetto, an Italian statesman and naval constructor, born in 1833; died in Rome, May 24, 1898. He was a Piedmontese, and was educated in Turin, where he qualified as a naval architect. He rose to the top of his profession in the navy yard at Leghorn, became the chief authority in naval architecture, and raised the prestige of the Italian navy by the construction of the monster ironclads "Iepanto," "Duilio," and "Dandolo." In 1876 he became Minister of Marine, and three times afterward he filled that office, which he held at the time of his death. Under Premier Giolitti he was Minister of Foreign Affairs.

Buffet, M., a French statesman, born in Mirecourt, Vosges, in 1818; died in Paris, July 7, 1898. He studied law and practiced as an advocate till

1848, when he was elected a Deputy. Though he had voted with the Orleanists, Louis Napoleon made him Minister of Commerce and Agriculture in 1849. At the end of that year he resigned with Odilon Barrot. He took a prominent part in 1850 in getting a law passed to restrict the suffrage, and in 1851 he returned to office, but resigned with the rest of the Cabinet six months afterward because Louis Napoleon proposed to repeal this act. After the *coup d'état* he retired from politics until 1864, when he was elected to the Corps Législatif, in which he took his seat with the Moderate Opposition. When Napoleon III turned for refuge to the Liberals in 1870 and appointed a Cabinet with Émile Ollivier at the head, M. Buffet accepted the portfolio of Finance, which he resigned, however, when the Emperor determined to appeal to a *plébiscite*, upsetting, in his view, the basis of the parliamentary system. After the war M. Buffet sat with the Right Center, the Orleanists, and in April, 1873, was elected President of the National Assembly, in succession to Jules Grévy. Retaining this post till the Assembly was dissolved, he actively and effectively aided the Reactionaries in their plans for forcing President Thiers to resign. In March, 1875, after he had accepted the republic, he became Prime Minister and Minister of the Interior in a Moderate Cabinet containing both Republicans and Royalists. He had disagreements with M. Dufaure and Léon Say in the Cabinet, and gave such offense to the people by the harsh measures that he took as Minister of the Interior and by his reactionary spirit and disagreeable manners, that when the election came in February, 1876, he could not get a seat for any one of the four constituencies in which he was a candidate. Resigning the premiership, he was elected a Senator for life a few months later by a majority of only a single vote in the Senate. Too unpopular to be taken into the Ministry of the Duc de Broglie, he attended the meetings of the Senate faithfully for the rest of his life, cut off from any further prominent part in affairs, and yet a keen debater on fiscal subjects and economic measures.

Burne-Jones, Sir Edward, an English painter, born in Birmingham, Aug. 22, 1833; died in London, June 17, 1898. He was of Welsh descent. He went to Oxford with the intention of studying for the Church, and there fell in with William Morris and other young disciples of the preraaphaelite school, who so inspired him with their love of art that he left the university in 1856 and went to London with the intention of making painting his profession. There he was strengthened in his hope and determination by his intercourse with Rossetti, whose theory and aims in art coincided with his ideas, and from whose hints and practice he caught the suggestions for his earliest drawings and efforts in color, mystical and romantic pieces, such as "Christ and the Knight." For the first dozen years few people were interested in his work, or ever saw any of it except an occasional drawing shown in the rooms of the Water Color Society. His designs in stained glass and tapestries, carried out by his friend Morris, first attracted the attention of the public, and roused in some unbounded admiration, in others strong aversion. His illustrations for books, also produced by Morris, had the same characteristics, and their working was the same. After the Grosvenor Gallery was opened in 1877 his works were the center of interest in the exhibitions, the most pronounced and characteristic of all the products of the new school that blazed into the public eye. He exhibited in succession the "Days of Creation," "The Golden Stair," "The Beguiling of Merwin," "The Annunciation," the "Pygmalion" series, "King Cophetua," and many more. Later, in the New Gallery, his paintings were the objects of the

keenest interest, drawing forth either passionate praise or fierce dislike. Everything that he produced was taken by one or another of his devoted admirers, and there was no standard by which the public estimation of his works could be tested until the largest collection came into the market on the death of its owner in 1886. Then his "Chant d'Amour" brought 3,000 guineas at auction. Shortly before his death his "Mirror of Venus" sold for 5,000 guineas. The faults in drawing that were glaring in his earlier paintings he corrected gradually by the most assiduous study and practice. The most generally admired of all his productions was the "Brier Rose" quartet of paintings. The mosaics in the American church at Rome are striking examples of his religious art, poetic and original, like all his work. In Celtic romance and mystery he showed an inborn racial aptitude. Many objected to the figures in his paintings as unreal types, psychological puzzles, but the wealth of decorative details and the beauty and variety of his coloring were artistic triumphs which no one could gainsay. "The Hours," the "Wheel of Fortune," "Laus Veneris," "The Resurrection," and "Pan and Psyche" are some of his most famous works in oil, and among his water colors "The Four Seasons," "Hope," "Night," and "Love among the Ruins." He designed the beautiful "St. Cecilia" for the window of Christ Church at Oxford. The color schemes, the decorative quality, the imaginative power, the legendary mysticism, the select refinement, the poetical inspiration of his work appeal to the artist nature, and have had influence in France as well as in England, and still more in America. He was elected an associate of the Royal Academy, exhibited one picture, and in 1893 resigned. He was created a baronet in 1894.

CaIRD, John, a Scottish divine and educator, born in Greenock in December, 1820; died there, July 30, 1898. He studied at Glasgow University, was ordained a minister of the Scottish Kirk, and in 1845 entered upon the charge of Newton-on-Ayr, which he exchanged in 1847 for one in Edinburgh, where he established a reputation as the most eloquent and impressive, and the most polished and intellectual preacher in the Established Church. He settled in 1849 in Errol, Perthshire, whence during the eight years of his pastorate he was frequently invited to preach in Edinburgh, Glasgow, and other towns. His sermon on "Religion in Common Life," preached before the Queen in 1855, was circulated in private form throughout Great Britain and America, and translated into German. After taking a pastorate in Glasgow in 1857, he published a volume of his most famous discourses. He resigned his charge in 1862 to become Professor of Divinity in Glasgow University, and in 1873 he was appointed principal and vice-chancellor of the university. His sermons on "The Unity of the Sciences" and "The Progressiveness of the Sciences," and one, preached before the British Medical Association in 1888, on "Mind and Matter," show a Hegelian tendency that he developed after turning his attention chiefly to philosophy and the philosophical aspects of religion. He published in 1880 "An Introduction to the Philosophy of Religion," the substance of a lecture that he had given at Edinburgh a year previous. In 1888 he published a study on "Spinoza." Having been appointed Gifford Lecturer in Natural Theology at Glasgow, he delivered a course of lectures in 1892 and another in 1895, and during the delivery of the second course he was stricken down with a weakening illness that incapacitated him for strenuous work. Principal Caird was the main contributor to the volume of "Scotch Sermons" issued in 1880 as an exposition of the ideas of the Broad Church party in the Church of Scotland.

Calderon, Philip Hermogenes, an English painter, born in Poitiers, France, in 1833; died in London, May 1, 1898. He studied art in Paris, settled in London, and exhibited "By Babylon's Waters" in 1853 at the Royal Academy, where he had one or more pictures every year until he was elected in 1867 a member, and from that time, too, he exhibited almost as regularly, extending his range from the historical subjects that first occupied his brush exclusively into the fields of realistic *genre*, poetic, and legendary art, portraiture, and other branches of painting. Some of his notable productions have been "The Jailer's Daughter" (1858); "The Return from Moscow" (1861); "Burial of Hampden" (1864); "Her Grace" (1866); "Whither?" (1868); "Sighing his Soul into his Lady's Face" (1869); "The Virgin's Bower" (1870); "On her Way to the Throne" (1871); "In a Palace Tower" (1872); "The Queen of the Tournament" (1874); "Coquettes" (1875); "His Reverence" (1876); "The Bird's Nest" (1876); "Joan of Arc" (1878); "Home they brought her Warrior Dead" (1877); "Summer Breezes" (1878); "Captives of Bow and Spear" (1880); "Flowers of the Earth" (1881); "Joyous Summer" (1883); "Night" (1884); and "Morning" (1885).

Carlingford, Chichester Samuel Parkinson-Fortescue, Lord, a British statesman, born in County Louth, Ireland, Jan. 18, 1823; died in Marseilles, France, Jan. 30, 1898. He was a son of Lieut.-Col. Chichester Fortescue, who sat in the Irish Parliament, and was educated at Christ Church, Oxford, taking his bachelor's degree in 1845, and gaining the chancellor's prize for a Latin essay in 1846. In 1847 he was elected a member of Parliament for County Louth, which he represented continuously for twenty-seven years. He gained the ear of the House by his first speech, delivered in 1848, in support of Lord John Russell's bill for the removal of Jewish disabilities. He became an effective debater on the Liberal side, and in 1854 was appointed by Lord Aberdeen a Junior Lord of the Treasury. After filling various other offices, he was advanced in 1857 to the Under Secretaryship for the Colonies, which he held during the whole of Lord Palmerston's ministry, from 1859 to 1865. On the reconstruction Cabinet, after Lord Palmerston's death, Mr. Fortescue was appointed at a critical juncture in Irish affairs to the responsible post of Chief Secretary for Ireland. On account of Fenian activity the *habeas corpus* act was suspended in 1866. He suggested a plan for transferring to the Roman Catholics a part of the revenues of the Irish Church, and introduced a bill providing for long leases of land and the compensation of evicted tenants for permanent improvements, to be fixed by official valuers and measured by the increased letting value of the land. The Government fell before this bill came to a vote. When Mr. Gladstone came into power in 1868 he reappointed Chichester Fortescue Irish Secretary, and was aided by him in carrying through the disestablishment bill, and improved the land bill by adding a clause granting tenants compensation for disturbance. In 1870 he introduced a peace preservation bill, and at the beginning of the following year he was transferred to the office of President of the Board of Trade. By a warning circular to railroad companies in 1873 he induced them to guard against accidents, which through their negligence had grown alarmingly frequent. When the Liberal Government went out in February, 1874, Chichester Fortescue was raised to the peerage as Baron Carlingford, and thirteen years afterward he succeeded his brother as Baron Clermont. He was appointed Lord Privy Seal in 1881, and in 1883 succeeded Lord Spencer as Lord President of the Council, retiring when his party was defeated in 1885.

Carroll, Lewis. See DODGSON.

Cavalotti, Felice, an Italian statesman, born in Milan, Nov. 6, 1842; died in Rome, March 6, 1898. He belonged to the old Venetian family of Baffo-Cavalotti. From childhood he was filled with patriotic rage against the Austrian masters of Lombardy, and in 1859 published a political tract entitled "Germania e Italia." While a law student he joined Gen. Medici's volunteer legion for the deliverance of lower Italy in 1860, and six years later he fought the Austrians with Garibaldi's band, taking part in the battle of Vezza. After the campaign, instead of devoting himself to his profession, he plunged into journalism and politics. He started the republican journal "Gazzetina Rosa," which involved him in perpetual legal prosecutions and duels. He first gained celebrity in 1868 by publishing revolutionary and antidynastic poetry, was elected to the Chamber from Cortecolona, and took the lead in the Extreme Left by his ardent and eloquent denunciations of political corruption and immorality of all kinds. He was the bitterest opponent of Francisco Crispi, whom he never forgave for deserting the republican principles of Mazzini. In discussions of foreign policy he took the lead of the Radicals who opposed the Triple Alliance and advocated a *rapprochement* with France. Cavalotti, who had fought 32 duels during his political career, was killed in one by Ferruccio Macola, a Conservative Deputy, whose newspaper he had charged with printing lies. Cavalotti was the author of a dozen plays that have been greatly admired in Italy. "Il Canzone" and "La figlia de Jephtha" have been played in other countries. His first drama, "I Pezzenti," was produced in Milan in 1871. His "Alcibiades" won a national prize. His last one was "Agatodemon," a comedy in four acts. He translated the poems of Tyrtæus into Italian.

Ceneri, Giuseppe, an Italian politician, born in Bologna in 1827; died there in June, 1898. He left the university as doctor of laws at the age of eighteen, joined the Piedmontese army in 1848, but returned soon, his health not being strong, to teach criminal law in the Athenæum at Bologna. In 1859 he became Secretary of Public Instruction in the Provisional Government, and as a Deputy voted for the abolition of the temporal power of the Pope. Nominated afterward to a judicial office, he preferred to return to his professorial chair. In 1867, however, he offered himself as a candidate for the Chamber, and in 1868 he was arrested in consequence of the political tumults and was deprived of his chair in the university, which shortly afterward was restored to him by the Correnti. He was elected over Minghetti in 1869, and again sat in the Chamber in 1882, voting with the Left. His course on Roman law in the university of Bologna was the most esteemed in Italy. He was one of the most brilliant of Italian orators.

Chapleau, Sir Joseph Adolphe, a Canadian statesman, born in Quebec in 1840; died in Montreal, June 13, 1898. He was educated in a college of his native province, studied law, was called to the bar in 1861, and was made a Queen's counsel in 1873 and appointed in that year Solicitor-General in the Quebec Government, holding the office, with an intermission of a year, till 1878. He was then chosen leader of the Conservative Opposition, and in 1879 was called upon to form a Cabinet. He remained Premier of Quebec until 1883, when he resigned in order to take the portfolio of Secretary of State in the Dominion Government. In 1892 he resigned that office to become Minister of Customs, and in 1893 he was appointed Lieutenant Governor of the province of Quebec. This post he filled for five years. Having founded in 1872 the *Crédit Foncier Franco-Canadien*, he was made by President

Grévy a commander of the Legion of Honor. In 1896 he was created a Knight of St. Michael and St. George.

Clark, George Thomas, an English genealogist and archaeologist, born in 1809; died at Tal-y-Garn near Llantrissant, Wales, Jan. 31, 1898. He was educated at the Charterhouse School, and in early life was a civil engineer. His attention was directed to archaeology early in his career, and for many years he devoted his leisure to examination of mediæval castles, the result of his investigations appearing in 1883 in a work in two volumes on "Mediæval Military Architecture in England." He knew his subject more thoroughly than any man of his time, and his great work is a standard authority. He possessed a clear, terse style, and his descriptions and explanations of castle arrangements leave very little to be desired. He published "The Land of Morgan: Its Conquest and its Conquerors" a volume relating to Glamorganshire (London, 1880); "Limbus Patrum Morganik and Glamorganik," a genealogical work (London, 1886); and "Cartæ et alia Munimenta quæ ad Dominum de Glamorgan Pertinent" (London, 1885-'93).

Clarke, Mary Victoria Cowden, English authoress and Shakespearean editor, born in London, England, June 22, 1809; died in Genoa, Italy, Jan. 13, 1898. She was a daughter of Vincent Novello, an eminent musician and composer, and married, July 5, 1828, an intimate friend of her family, twenty-two years older than herself, Charles Cowden Clarke, an author and lecturer. The home of Mr. Novello was a resting place for many of the best literary, artistic, and dramatic persons of the day, and the little Victoria, as she was called in the home circle, became disposed toward literature at a very early age. In her childhood she was taught by Mary Lamb; and Charles Lamb, John Keats, Leigh Hunt, and Shelley were associates of her early years. After leaving the care of Mrs. Lamb she was sent to a boarding school in Boulogne-sur-Mer, France, for education in the language and letters of that country. Returning to London, she became a governess and spent the years that intervened until her marriage as such in one family. She began her literary work during this time with the contribution of several interesting articles to Hone's "Table Book." After her marriage her husband and she resided with her parents. Mr. Cowden Clarke was at this time dramatic writer for the "Examiner" and "Atlas" newspapers, and the young wife became deeply interested in the drama and in study of Shakespeare. She began her celebrated concordance to the plays of Shakespeare in 1829, and completed it in 1845. This book has gone through many editions both in England and America, and constitutes the best monument of the gentle compiler's worth. Thence ensued a busy life of book and essay writing, varied with social meetings in which mutually helpful groups of writers, singers, and actors were gathered around her. In an amateur performance of "The Rivals," Nov. 10, 1847, Mrs. Cowden Clarke played Mrs. Malaprop so charmingly that Charles Dickens easily induced her to join his famous company of literary players. With these eminent associates, among whom were Dickens, Mark Lemon, and John Forster, she played in the series of performances given in the principal cities of England in 1848. In 1856 she and husband removed to Nice. About the same time she was introduced to American literature by the Messrs. Appleton, who engaged her to edit an edition of Shakespeare published in 1858, thus bestowing upon her the distinction of being the first woman editor of the great dramatist. From that time she became also a contributor to American magazines. In 1860 her brother Alfred, founder of the music publishing house of Novello,

Ewer & Co., London, having retired from business, purchased an estate near Genoa, which he named "Villa Novello," and persuaded the Cowden Clarks to make their home with him. After the death of her husband, in his ninetieth year, March 13, 1877, Mrs. Clarke passed much of her time with her sister Clara, Countess Gigliucci, at Fermo, Italy. From 1877 to 1885 she traveled much on the Continent, principally in Germany and Austria, always returning to the Villa Novello. She was actively engaged as a writer of magazine articles during the closing years of her life. Her principal works are: "The Complete Concordance to Shakespeare" (London, 1845); "World-Noted Women" (New York, 1859); "The Girlhood of Shakespeare's Heroines"; "The Story of the Drop of Water, a London Legend," under the pseudonym of Harry Wandsworth Shortfellow (London, 1856); "Life and Labors of Vincent Novello" (London, 1864); "Trust and Remittance, Love Stories in Metrical Prose" (London, 1873); "A Rambling Story" (London, 1874); "Honey from the Weed" (London, 1881); "Slippery Ford: or, How Tom was Taught" (London, 1885); "A Centennial Biographic Sketch of Charles Cowden Clarke, by her whom he made his Second Self" (London, 1887); and "My Busy Life," an autobiography (New York, 1896).

Cochrane, William, clergyman and educator, born in Paisley, Scotland, in 1831; died in Brantford, Ontario, Canada, Oct. 17, 1898. He entered the University of Glasgow, but removed to the United States before he had completed the course of study. He was graduated at Hanover College, Indiana, in 1857. He was ordained to the ministry in 1859, and in 1862 became pastor of Zion Presbyterian Church, Brantford. In the conduct of this pastorate, which lasted through his life, he became prominent in all the affairs of his denomination, and he was conceded to be the most distinguished minister of the Presbyterian Church in Canada. He was for many years president of the Young Ladies' College in Brantford. In 1875 Hanover College conferred the degree of D. D. upon him. He published "The Heavenly Vision" (1873); "Christ and Christian Life" (1875); "The Church and the Commonwealth" and "Memoirs and Remains of the Rev. Peter Inglis" (1887); and "Future Punishment" (1889).

Crespo, Joaquin, ex-President of Venezuela, died in April, 1898. He rose to high political positions when Guzman Blanco was President, and was chosen by the latter to succeed him when the Constitution forbade him to occupy the presidential chair. Not content with the rôle of a substitute, Crespo drove Guzman Blanco from power. When he in turn fell from power in 1892, he took up arms against President Andueza Palacio, overturned him, and had himself elected in his place. After a tranquil administration he yielded up the chair to Gen. Andrade, whom he had chosen for his successor, and replaced the latter as Governor of Miranda. Gen. Hernandez, the opposing candidate, pretending to believe that Crespo had conducted the presidential election arbitrarily, began to recruit partisans in the interior in February, 1898, and in an encounter with these, in April, Gen. Crespo found his death.

Dauphin, Albert, a French statesman, born in Amiens, Aug. 26, 1827; died there in November, 1898. He was mayor of Amiens in 1870, in 1873 president of the Council of the Somme, and in 1876 was elected to the Senate, where he took his seat in the Left Center and supported the Dufaure ministry. He was re-elected in 1882, presided in 1884 over one of the committees for the revision of the Constitution, and in 1886 received the portfolio of Finance in the Goblet ministry.

Davidson, Samuel, an Irish clergyman, born near Ballymena, Ireland, in 1807; died April 1, 1898. He was educated for the Presbyterian ministry at Glasgow University and at the Theological College of the Presbyterians in Belfast, Ireland, and became Professor of Biblical Criticism at the latter institution in 1835. His sympathies inclining him toward the Congregationalists, he became Professor of Biblical Literature in the Lancashire Independent College, Manchester, in 1842, but resigned this chair in 1857 on account of the dissatisfaction expressed regarding his supposed heterodox views. He then settled in London, which continued to be his home, absorbed in study and authorship. Although his views became somewhat more advanced with the lapse of time, he lived nevertheless to be regarded as comparatively conservative and firmly opposed to what he considered to be revolutionary views. He had great learning and was courageous in the expression of his opinions. He published "Revision of the Hebrew Text of the Old Testament" (London, 1855); "Facts, Statements, and Explanations connected with the Publication of the Second Volume of the Tenth Edition of Horne's 'Introduction to the Study of the Holy Scriptures'" (London, 1857); "Introduction to the Old Testament" (London, 1862-'63); translation of Fuerst's "Hebrew and Chaldee Lexicon to the Old Testament" (London, 1865); "An Introduction to the Study of the New Testament" (London, 1868); "On a Fresh Revision of the English Old Testament" (London, 1873); translation of "The New Testament from the Critical Text of Tischendorf" (London, 1875); "The Canon of the Bible: Its Formation, History, and Fluctuations" (London, 1877); "The Doctrine of Last Things contained in the New Testament" (London, 1882).

Dehianoff, Count Ivan Davidovich, a Russian statesman, born in Moscow in 1818; died in St. Petersburg, Jan. 10, 1898. He was of Armenian parentage, and remained through life a communicant of the Armenian Church. He studied at the Moscow University, and at the age of twenty entered the Government service in the legislative department of the Imperial Chancellerie, being employed for a long time in the preparation of a new criminal code. He passed over in 1858 to the Department of Public Instruction, with which he was connected for the greater part of his subsequent career, first as curator of St. Petersburg and dependent provinces, then as assistant to the minister. In 1882 he was appointed Minister of Public Instruction. In carrying out the policy of Russifying the heterodox and alien populations of the empire under the present Czar he was zealous and energetic. All the educational privileges and distinctions were swept away in the Baltic provinces, Poland, and the Caucasus, and the Russian language and state religion introduced with the teachings of Muscovite patriotism. One of his last acts was to take away from the Armenian patriarchate the control of the Armenian Church schools and place them under the exclusive power of the Government, by which he gave great offense to his own people.

Dodgson, Charles Lutwidge, an English clergyman, born in Daresbury, Cheshire, Jan. 27, 1832; died in Guildford, Surrey, Jan. 14, 1898. He was a son of the Rev. Charles Dodgson, archdeacon of Richmond, Yorkshire, and was educated at Richmond, Rugby, and Oxford. In 1854 he was appointed mathematical lecturer at Christ Church, and he held that chair until 1881. He became a fellow of Christ Church in 1861 and so remained until his death. In the same year that he attained his fellowship he became a deacon in the Church of England, but he never was advanced to the priesthood. To a circumscribed circle he was known as the author of

abstruse mathematical works, but to the English-speaking world in general he was Lewis Carroll author of "Alice in Wonderland." His love for children was a marked feature in his character, and it was to amuse the children of Dean Liddell of Oxford that he began the tale which afterward developed into the delightful child's book which brought him fame, the name of Alice being borrowed from one of the Liddell children for his heroine. But his name never appeared on the title-page of this or his later books for children, and he never acknowledged their authorship in so many words. Only his mathematical works appeared with his own name on the title-page. Of the former, the "Alice" books are by far the best, but the peculiar, inimitable quality of his humor is seen in all. His life was very quiet and retired, and for more than forty years he occupied the same rooms in Christ Church, where children were always welcome. In his latest years he withdrew almost entirely from society and was seen only among the fellows when dining with them in the college hall. His writings include "A Syllabus of Plane Algebraical Geometry" (London, 1860); "The Formulæ of Plane Trigonometry" (Oxford, 1861); "Guide to the Mathematical Student" (Oxford, 1864); "Alice's Adventures in Wonderland" (London, 1865); "An Elementary Treatise on Determinants" (1867); "Phantasmagoria and Other Poems" (1867); "Through the Looking-glass and what Alice found there" (1871); "Facts, Figures, and Fancies" (1871); "Euclid—Book V proved Algebraically" (1874); "The Hunting of the Snark" (1876); "Euclid and his Modern Rivals" (1879); "Doublets: A Word Puzzle" (1879); "Rhyme? and Reason?" (1883); "A Tangled Tale" (1885); "Alice's Adventures Underground: A Facsimile Edition of the Original Manuscript of Alice's Adventures in Wonderland" (1886); "The Game of Logic" (1887); "A New Theory of Parallels" (1888); "Sylvie and Bruno Concluded" (1894); "Symbolic Logic," Part I (1896). The second and third parts of the last-named work were in process of completion at the time of the author's death.

Dowling, Richard, an Irish novelist, born in Clonmel, Ireland, June 3, 1846; died July 28, 1898. He was educated at St. Munchin's College, Limerick, and in 1870 became a member of the editorial staff of "The Nation" in Dublin. He removed to London in 1875, where he engaged in journalism, but soon devoted himself to novel writing. His work displays vigor of style and skill in construction, but the influence of Victor Hugo is apparent in his manner. A nearly complete list of his writings comprises "Babies and Ladders," a collection of humorous essays; "The Mystery of Killard: A Novel" (London, 1879); "The Spirit of Fate" (1880); "Under St. Paul's: A Romance" (1880); "London Town: Sketches of London Life and Character" (1880); "The Weird Sisters" (1880); "The Duke's Sweetheart" (1881); "The Husband's Secret" (1881); "A Sapphire Ring and Other Stories" (1882); "Sweet Inisfail" (1882); "The Last Call" (1884); "The Hidden Flame" (1885); "The Skeleton Key" (1886); "Tempest Driven" (1886); "Ignorant Essays" (1887); "With the Unchanged" (1887); "Miracle Gold" (1888); "An Isle of Surrey"; "Indolent Essays"; "A Baffling Quest" (1891); "A Dark Intruder" (1894); "While London Sleeps" (1895); "Catmur's Caves" (1896); "Old Corcoran's Money" (1897); "A Lance in Ambush" (1898).

Ebers, Georg Moritz, a German Egyptologist and novelist, born in Berlin, March 1, 1837; died in Tutzing, Bavaria, Aug. 8, 1898. His education was obtained at the gymnasiums of Kottbus and Quedlinburg and the universities of Göttingen and Berlin, and in 1865 he became lecturer at the Uni-

versity of Jena, and subsequently Professor of Egyptology Archaeology there. In 1870 he was called to the professorship of Egyptology at the University of Leipsic, and he remained there until his retirement in 1889. He was already famous for his thesis "On the Twenty-sixth Egyptian Dynasty," "Egypt and the Book of Moses," and "Scientific Journey to Egypt," which latter book appeared



in 1869-'70, and to these works his elevation to the Leipsic chair was due. In 1872-'73 he made another journey to Egypt, and among other discoveries made by him at this time was that of the scroll since called the "Papyrus Ebers." In 1876 an attack of paralysis prevented him from walking, and he then turned his attention to the field of

historical novel writing, which in 1864 he had essayed by the publication of "An Egyptian Princess." "Uarda: A Romance of Ancient Egypt," appeared in 1877 and was immediately popular, being translated into English, as were a number of his subsequent works, by Clara Bell. His later novels were "Homo Sum" (1878); "The Sisters" (1880); "The Emperor and the Burgomaster's Wife" (1881); "Only a Word" (1883); "Lempis" (1885); "Margery" (1889); "Per Aspera" (1892); "Cleopatra" (1894); "In the Fire of the Forge" (1895); "In the Blue Pike" (1896); "Barbara Blomberg" (1897); and "Arachne" (1898). Among his other works are "Papyrus E: A Hieratic Manual of Egyptian Medicine" (1872); "Through Goshen to Sinai" (1872); "Egypt: Descriptive, Historical, and Picturesque" (1878); "Palestine: Descriptive, Historical, and Picturesque," with Guthe (1881); "Lorenz Alma-Tadema: His Life and Work" (1886); and "The Story of my Life," an autobiography (1893).

Elisabeth, Empress of Austria, born in Possenhofen, Bavaria, Dec. 24, 1837; died in Geneva, Switzerland, Sept. 10, 1898. She was the daughter of Duke Maximilian Josef of Bavaria, who supervised her education in the Schloss on the Lake of Starnberg, and had her trained in riding and swimming as well as in literary and artistic knowledge. Her cousin, the Emperor Franz Josef, fell in love with her while visiting her parents, and on April 24, 1854, they were married. The young Empress-Queen, who with the Emperor was crowned with the insignia of St. Stephen when the inauguration of the dual system was solemnized, made herself liked by the Hungarian as well as the Austrian people, but did not win easily some of the envious cliques of the court, who were taught in the end to admire and respect her by the exercise of her social talents. The constitutional compromise of 1867, by which the ancient liberties of Hungary were revived, was in a measure brought about by her influence. She was strongly attached to her family, the ancient house of Wittelsbach, and grieved at the deposition of her sister, the last Queen of the Two Sicilies, and was much affected by the tragic death of King Ludwig of Bavaria, and had other sorrows to endure before she was stricken with the crowning grief, the death of all her hopes, through the violent and mysterious end of her only son, the Crown-Prince Rudolf. Glad before to escape from the irksome formalism

of the court, and fond of roving to the hunting fields of England and Ireland, or in pedestrian tours in the Alpine country, or wherever she could find delight in art and nature and healthful pleasures, she became henceforth a wanderer and an exile from the scenes that recalled the terrible blow. When her sister, the Duchess d'Alençon, perished by fire in 1897, she was once more plunged in sorrow. The culmination of all the series of tragedies was her own death by the hand of an assassin, an Italian anarchist. Her dauntless courage, which she had displayed in many an emergency, did not desert her in the final scene. The Empress Elisabeth had a refined literary taste, delighting especially in the poetry of Heinrich Heine, Alfred de Musset, and Lord Byron, and also in painting and sculpture, with which she filled her summer palace in Corfu. She spent large sums in charity, and was accustomed to go privately among the poor and minister to their wants personally.

Eybesfeld, Baron **Conrad von**, an Austrian statesman, born in 1831; died in Gratz in July, 1898. He belonged to the group of Count Hohenwart, which was favorable to Federalism and the national aspirations of the Slavs, and the Clerical principles of the Germans of the Alps. In questions of the Church and the schools he defended the Clerical standpoint with warmth, and in 1888 he was made Minister of Public Instruction and Worship in the Cabinet of Count Taaffe. After the fall of the ministry in 1885 he withdrew from public affairs, though remaining a member of the Chamber of Peers.

Fabre, Ferdinand, a French novelist, born in Bédarieux, Hérault, in 1830; died Feb. 16, 1898. He was originally destined for the priesthood, but preferred a literary career, and won a reputation by his scenes from clerical life and rural romances. His best works were "Courbezon," "Julien Savignac," "L'Abbé Tigrane," "Le Chevrier," "La Petite Mère," "Mon Oncle Célestin," "Le Roi Ramire," "Madame Fuster," "Ma Vocation," "Un Illuminé," "Ravière," and "Sylviane."

Faucit, Helena, Lady **Martin**, actress, born in London, England, Oct. 11, 1819; died in Brynly Sillis, near Llangollen, Wales, Oct. 31, 1898. She was the daughter of John Saville Faucit, a well-known actor of his time, and was known of late years as Lady Martin from her marriage to Sir Theodore Martin. From the fact that her parents and other members of her immediate family were actors, it came about that she made her first public appearance on the stage at a very early age. In November, 1833, her elder sister Harriet was playing at the Theater Royal, Richmond, Surrey, and one day Helen and she were rehearsing the balcony scene of "Romeo and Juliet," with Helen as Juliet, when Willis Jones, manager of the theater, accidentally overheard the impromptu effort of the young girl. He was so pleased that he induced her parents to consent to her playing with him. She played Juliet in "Romeo and Juliet," Mariana in "The Wife," and Mrs. Haller in "The Stranger," with considerable success, but was withdrawn by her parents after these three performances and placed under the professional tutelage of Percy Farren, brother of William Farren, the elder, with the intention that at a later date she should enter formally upon the dramatic calling. This she did with instant and great success at the Theater Royal, Covent Garden, London, Tuesday, Jan. 5, 1836, as Julia in Sheridan Knowles's play "The Hunchback." Mr. Knowles playing the part of Master Walter and Mr. Charles Kemble that of Sir Thomas Clifford, the original performers of the same parts in the first production of the play in 1832. On Wednesday the play was announced for that night, Friday, and

Saturday, and on Thursday this notice headed the bill of the day: "Mr. Osbaldiston has the gratification of announcing to the public that in consequence of the complete overflow to all parts of the theater, the enthusiastic applause that again attended the entire performance of 'The Hunchback,' and the brilliant success that crowned the *début* and subsequent appearance of Miss Helen Faucit, in the character of Julia, that popular play will be repeated this evening, to-morrow, and Saturday." So it continued during the entire month of January, and Helen became the favorite of London. Her first formal engagement was for three months at the Covent Garden, but hers was the history of the English stage for forty years. Wednesday, Jan. 27, 1836, she made her first appearance in the character of Belvidera in Otway's "Venice Preserved," and Monday, Feb. 8, 1836, her first appearance in London as Mrs. Haller in "The Stranger." Then followed in quick succession the following first performances, all repeated to crowded audiences: Feb. 25, 1836, Margaret in Joanna Baillie's tragedy "Separation"; March 10, 1836, Juliet, Mr. Charles Kemble as Mercutio; March 26, 1836, Lady Townley in "The Provoked Husband"; April 16, 1836, Donna Florinda de Sandoval in the first production of "Don Juan of Austria" (from the French); May 27, 1836, Mariana in "The Wife" (first time in London); June 1, 1836, Clemanthe in Talfourd's "Ion," with Mr. Macready as Ion. Helen Tree had played Ion in the first production of the play a few nights before, May 25. On June 30, 1836, Miss Faucit took her benefit as Mrs. Haller in "The Stranger." Charles Kemble was in the last year of his career on the stage, and during the autumn months Helen Faucit played the opposites to him, including his farewell performances ending Dec. 23, 1836. During this time, in addition to the parts above enumerated, she played with him Sept. 24, 1836, Portia in "The Merchant of Venice"; Oct. 1, Lady Teazle in "The School for Scandal"; Oct. 6, Constance in "King John"; and on the same night Katherine in "Katherine and Petruchio," with Sheridan Knowles as Petruchio. On Dec. 23, 1836, she played Beatrice to Mr. Kemble's Benedick in "Much Ado About Nothing," his farewell to the stage. Thus in one year, the seventeenth of her age, this wonderfully gifted woman played for the first time fourteen greatly differing and arduous characters. On Jan. 4, 1837, she played the title rôle in the first production of "The Duchess de la Vallière," a new play by E. L. Bulwer (afterward Sir Edward Bulwer Lytton). Her other first appearances in this year at the Covent Garden were: March 13, 1837, "Bertran"; April 20, Erina in Sheridan Knowles's "Brian Boroihme" (first production), with the song "Would you Hear my Sweet Harp?"; May 1, Lady Percy in Browning's "Strafford" (first time); May 8, Queen Catharine in "Henry VIII"; May 8, Editha in "Walter Tyrrell"; May 18, Imogen in "Cymbeline"; May 31, Marian in "The Wrecker's Daughter," for the benefit of the author, Sheridan Knowles. In July, 1837, Helen Faucit became the leading woman of William Charles Macready on his assuming the management of Covent Garden Theater, an association which continued many years to the glory of the English stage. During the first months of the season of 1837-'38 Miss Faucit played many Shakespearean parts for the first time, as Cordelia, Desdemona, and Hermione. On Feb. 15, 1838, "The Lady of Lyons" was produced for the first time, and Miss Faucit contributed in the greatest degree to the triumph of the anonymous dramatist by her brilliant performance of Pauline. It was announced next day, with the name of the author, for indefinite repetition. On March 7, 1839, Sir

Edward Lytton Bulwer achieved another great success in "Richelieu," wherein Miss Faucit was the Julie de Mortemar. Oct. 31, 1839, another original play of Bulwer's, "The Sea Captain," afterward called "The Rightful Heir," gave her an original part in Violet, the heroine. While Mr. Macready was at the Haymarket Theater, Dec. 8, 1840, Miss Faucit was the original of another of Bulwer's heroines, Clara Douglas in "Money." Other plays in which she acted the leading female rôle with Mr. Macready on their first productions were Knowles's "Woman's Wit" and "The Secretary," Talfourd's "Glencoe," Serle's "Master Clarke," Dr. Westland Marston's "Patrician's Daughter," Byron's "Marino Faliero," and Troughton's "Nina Sforza." In 1842 Miss Faucit accompanied Mr. Macready to Drury Lane Theater as his leading woman, and here on Feb. 23 she played Sophonisba in the first production of Gerald Griffin's tender tragedy of "Gissippus," after the gentle Irish boy had been laid in his humble grave at Cork. Browning's "Blot in the Scutcheon" was first produced Feb. 11, 1843, and in it Miss Faucit originated the character of Mildred Tresham. Mr. Macready's retirement from management left London without a home for classic plays, and Helen Faucit became a "star." She was hailed with acclamations of delight in Edinburgh, Dublin, Glasgow, and Manchester, and she continued traveling for two years. In 1845 she joined Macready again in a series of Shakespearean performances at the Salle Vendadour, Paris. They played there with great success, especially for Miss Faucit, "Othello," "Hamlet," "Macbeth," "King Lear," "Romeo and Juliet," "Werner," and "Virginius." In March, 1845, she played "Antigone" in Dublin, and was presented with a bracelet of Irish gold by the Royal Irish Academy. She also played "Iphigenia in Aulis" during the same engagement. After playing through the provincial towns, Miss Faucit reappeared in London, Nov. 3, 1846, with a wonderfully attractive performance of Rosalind in "As You Like It." One of the notable plays in which she was the original heroine was Dr. Marston's "Philip of France," in which her Marie de Meraine never has been equalled. On Aug. 25, 1851, Miss Faucit married Theodore Martin, author of the "Bon Gaultier Ballads," "The Life of the Prince Consort," "Translations of Horace," and other works. She continued to play, with intervals of rest. April 25, 1853, Robert Browning's play in five acts, "Colombe's Birthday," was presented at the Haymarket Theater, London, then under the management of J. B. Buckstone. Miss Faucit began a special engagement of ten performances in London on this occasion and personally directed the production of Mr. Browning's play, in which she charmingly executed the rôle of Colombe. In Mrs. Sutherland Orr's "Life of Robert Browning" (Vol. I, page 281) this event is thus noted: "Mrs. Browning writes about the performance, April 12th: 'I am beginning to be anxious about "Colombe's Birthday." I care much more about it than Robert does. . . I should like it to succeed.' She communicates the result in May: 'Yes, Robert's play succeeded, but there could be no run for a play of that kind. . . Miss Faucit was alone in doing us justice!'" Mrs. Orr continues: "Mrs. Browning did see Miss Faucit on her next visit to England. She agreeably surprised that lady by presenting herself alone one morning at her house and remaining with her for an hour and a half. The only person who had 'done justice' to 'Colombe,' besides contributing to whatever success her husband's earlier plays had obtained, was much more than a great actress to Mrs. Browning's mind, and we may imagine it would have gone hard with her before she renounced the

pleasure of making her acquaintance." On July 6, 1855, she produced in London (having played it earlier in the provinces) her husband's version of "King Rene's Daughter," assuming the part of Iolanthe. For the most part, during subsequent years, she played only the characters of her very extensive repertory; but on Nov. 3, 1864, she assumed for the first time the part of Lady Macbeth at Drury Lane Theater. Her greatest Shakespearian presentations, however, were Juliet, Beatrice, Imogen, Portia, and Rosalind. After her appearance in 1864 Lady Martin (her husband had now been knighted) went into comparative retirement. On March 2, 1874, she played Lady Teazle in a performance of "The School for Scandal" at Drury Lane Theater, for the benefit of Ben Webster, and her last appearance in London was in June, 1876, when she played Iolanthe at the Lyceum Theater for Henry Irving to his Sir Tristram. In April, 1879, she played Beatrice in "Much Ado About Nothing" at the inauguration of the Memorial Theater, Stratford-on-Avon, to the Benedick of Mr. Barry Sullivan. In October of the same year, the sixtieth of her age, she played Rosalind at Manchester for the benefit of the widow of the actor Charles Culvert. This was her last appearance on the stage in character, but she frequently gave public readings at Llangollen for local charities. Sir Theodore and Lady Martin lived in quiet content in the Vale of Llangollen, sympathetic and often of practical help to young authors, actors, and artists. In her social sphere Helena Faucit was the friend of the greatest men of her time, among them Sir Walter Scott, Thackeray, Browning, Tennyson, Carlyle, Dickens, and Lord Lytton. She was honored with the personal friendship of her Sovereign, who, as a mark of her admiration of the purity and beauty of the actress's life, appointed her reader to the Queen. In her art Helen Faucit was true to the ideals of beauty and taste. She speedily overcame the injurious influence of the Macready mannerisms, and was always a model of fine diction. She excelled by a charm of manner rather than by natural force or startling innovations. Her book of essays, entitled "Some of Shakespeare's Female Characters" (1887) has gone through several editions.

Feuillée, Félix Martin, a French statesman, born in Rennes in 1830; died there in the beginning of August, 1898. He studied and practiced law in his native town, served in the war with Germany, receiving the cross of the Legion of Honor for bravery during the siege of Paris, was elected a Deputy in 1876 and became one of the most active members of the majority, took the under-secretaryship of the Interior in 1879, and in 1880 entered the Cabinet as Minister of Justice. He supported Jules Ferry, his chief, in important debates, but his reputation rests mainly on the judicial reforms that he proposed and saw partly carried into execution in 1882 after long discussions. His name is connected also with important administrative reforms, and he was one of the chief advocates of the law of divorce. In 1889 he lost his seat to a Conservative.

Fontane, Theodor, a German poet, born in Neu Ruppin, Dec. 30, 1819; died in Berlin, Sept. 21, 1898. He was educated as an apothecary, and followed this business in Leipsic and Berlin. The patriotic poems of his friend C. F. Scherenberg prompted him to try his hand at poetry. "Männer und Helden," a series of Prussian ballads, was followed by the epic poem "Von der schönen Rosamunde." During two visits to England he was attracted to Scottish subjects and inspired the ballad of "Archibald Douglas," followed later by poems on Mary Stuart, Lady Jane Grey, and the War of the Roses, in which an elevated romantic tone pre-

vails. Prussian historical themes he treated in a more popular style and with a martial and patriotic spirit. The former were too wild and stern for the taste of those days, and the subjects of the latter interested nobody. It was his volumes describing tours through Mark Brandenburg that first drew attention to the picturesqueness of the towns and to the peculiar charms of Nature in that sandy region and to the author as well. He wrote two novels to glorify Prussia, "Vor dem Sturm" and "Schach von Wuthenow." The Danish, Austrian, and French wars he saw as a newspaper correspondent, and in the last one was taken prisoner. Afterward he wrote on English politics, and then was for some time a dramatic critic. When the taste of the Berliners was suddenly captivated by the realism of Zola, instead of warring against the tendency like other old romanticists, Fontane determined to exercise his experienced hand in the new art, and therefore wrote novels of Berlin society in which the boldest modern realism is presented, without didactic or moral purpose, without pessimistic or other tendency, but with a purely artistic, literary design. He avoided repulsive, abnormal, and dreadful subjects and characters, and treated the griefs and joys, the mingled virtues and vices, which he depicted with an easy, careless grace and humor, a German objectiveness and scientific interest, distinguishing the school that he founded from the naturalistic writers of either France, Russia, or Scandinavia.

Fowler, Sir John, an English engineer, born in Sheffield in 1817; died in Bournemouth, Nov. 20, 1898. He was the pupil of J. F. Leather, the engineer who planned the waterworks of Yorkshire, and afterward assisted in preparing drawings and contracts for railroads, started on his own account at the age of twenty-six, and was employed as chief engineer for various railroads that were successively chartered by Parliament, gaining a great reputation among railroad promoters by his services to the Great Grimsby line. He designed also and carried through, against the opposition of local authorities and interests and the prognostications of the most eminent engineers, the London underground railroad. As consulting engineer to the Khedive Ismail Pasha he planned railroads and other schemes for the improvement of Egypt, for which he was made a Knight of the British Colonial order in 1885. He was associated with Sir Benjamin Baker in designing the Forth bridge, and was made a baronet in 1880.

Garashanin, Milutin, a Servian statesman, born in Belgrade in 1843; died in Paris, March 6, 1898. He studied for eight years in French colleges, and after returning home in 1868 cultivated his property at Grotzka until 1880, when, the opponents of Ristich gaining the upper hand, he became Minister of the Interior under Pirochanatz. He was appointed minister to Vienna on retiring from the Cabinet, and was recalled in 1884 to become Prime Minister. He remained at the head of the Government for three years, resigning in 1887 because he would not countenance King Milan's design to get rid of Queen Natalie by a divorce. In 1895 he was appointed Servian minister at Paris.

Garnier, Jean Louis Charles, a French architect, born in Paris, Oct. 6, 1825; died Aug. 4, 1898. He entered the École des Beaux-Arts in 1842, and remained there six years, receiving in 1848 the Grand Prix de Rome for his design for a Conservatoire pour Arts et Métiers. At the Salon of 1853 and at the Exposition Universelle in 1855 his polychromatic design for the restoration of the Temple of Jupiter in the island of Egina attracted much attention. In 1860 he was appointed architect to the city of Paris, and in the competition for the Paris

Opera House in 1861 his design was accepted unanimously. This building, his greatest work, was formally opened for performances on Jan. 5, 1875. His other important works include the Théâtre de la Terrasse at Monte Carlo, the Maison de Jeux at Monaco, the Observatoire at Nice, the Cercle de la Librairie on the Boulevard St. Germain, Paris, and at the Exhibition of 1889 a notable series of reconstructions of human habitations of various epochs, which occupied the whole front of the Champ de Mars. He wrote much and well upon architectural topics, and was honorary and corresponding member of 17 foreign academies.

Gee, Thomas, a Welsh politician, born in Denbigh in 1815; died there, Sept. 28, 1898. He was educated at Wrexham, entered his father's publishing business, and became the editor of the "Banner," the chief organ of the Welsh democracy, and a popular and effective public speaker on political and religious subjects. He was ordained a minister of the Calvinist Methodist denomination, but still devoted himself chiefly to his journalistic and political work. He was the accepted champion of the educational, religious, economical, and political interests of the Welsh. Besides some literary works in the Welsh language, he published "The Myrforian Archaeology of Wales."

Gehrt, Karl, a German artist, born in Hamburg, May 11, 1853; died in Endenich, near Bonn, July 17, 1898. He was the son of a decorative artist, and after passing through the art school of his native city he went to Weimar in 1871, where he studied under Karl Gussow and Albert Baur. With the latter he settled in Düsseldorf in 1876. He made innumerable drawings illustrating "Reinecke Fuchs," "Tannhäuser," "Thomas à Kempis," and other works, humorous sketches for the "Fliegende Blätter," and artistic picture books, such as "Jagdleben der Gnomes," "Amor bei Jung und Alt," and "Ein Hochzeitsmährchen." His representations of gnomes, dwarfs, and elves are peculiar, and charm art lovers and children equally. His water colors, such as "Petruchio's Wedding," "The Pirate Claus Stortebek," etc., are admirable in technical execution as well as in composition, but his few oil paintings fall below them. His great work was the wall decoration of the stairway to the art gallery in Düsseldorf, depicting the history of art. This occupied ten years. When he died he was at work on drawings for the Rathhaus in Hamburg.

Gholam, Hyder Khan, an Afghan soldier, died in March, 1898. He was an Orakzai chief, the son of Sikunder Khan, with whom he suppressed in 1887 the revolt of the Ghilzais. In the following year he alone, at the head of the Ameer's army, saved the throne for Abdurrahman by dispersing the forces of the pretender Ishak Khan. He had a large share in the reorganization of the Afghan army, directed all the annexation campaigns in the mountainous regions of western Afghanistan, subjugated Kafiristan, and during the recent rising of the Afridis against the British he faithfully observed the injunction of the Ameer to keep his tribesmen from actively aiding their brothers.

Gilbert, Sir John Thomas, an Irish historian, born in Dublin in 1829; died in London, May 28, 1898. He was educated in Dublin and in England, and received the appointment in 1867 of Secretary of the Irish Public Record Office, after having devoted himself to researches in the literary and historical antiquities of his native land. In 1875 he became inspector of Irish manuscripts. He gave an impetus to Celtic studies by editing the most important of the old Irish manuscripts. His principal works are: "History of Dublin" (1854-'59); "History of the Viceroy of Ireland" (1865); "Historical and Municipal Documents of Ireland" (1870); Na-

tional Manuscripts"; "History of Affairs in Ireland, 1641-'52" (1879-'81); and "History of the Irish Confederation" (1882).

Goodenough, Sir William Howley, an English soldier, born in 1833; died in Cape Town, Oct. 24, 1898. He was a son of the Dean of Wells, was educated at Westminster School and the Woolwich Military Academy, and entered the Royal Artillery as second lieutenant at the age of sixteen. As a captain he fought gallantly in the Indian mutiny, and as major he filled important staff offices in England and served as military *attaché* in Vienna. In the Egyptian expedition of 1882 he commanded the Royal Artillery with the rank of brigadier general. As major general he commanded various districts in Great Britain, promoting the volunteer movement, especially the artillery association. He became a lieutenant general in 1891, and in 1894 was placed in command of the British forces in South Africa.

Grey, Sir George, a British administrator, born in Lisbon in 1812; died in London, Sept. 19, 1898. He was the son of an officer who fell at the storming of Badajoz before his birth, and was educated for the military profession at Sandhurst, went into the service at the age of eighteen, and while stationed in the west of Ireland saw so much misery that he determined to escape to the roomy regions of Australia, whither he sailed on an exploring mission for the Geographical Society. He landed in Hanover Bay, and passed through privations and suffering and had many hairbreadth escapes while exploring the waterless regions of northwestern Australia. The Governor of Western Australia appointed him resident at King George's Sound, and there he studied the nature of the Australian blacks until he was obliged to return to his regiment when his two years' leave expired. In England he published a book narrating his experiences which was much read and which impelled Lord John Russell, then Colonial Secretary, to select the young officer for the post of Governor of South Australia, an infant colony which was then falling into a state of anarchy. He arrived in 1841, and in four years, by retrenchment and reorganization, rescued the treasury from bankruptcy, and by aiding impoverished colonists from his own purse and promoting industry and winning the confidence of the common people by checking the monopoly of town sites by speculators and of fertile tracts by squatters, he brought the colony out of its difficulties and set it in the path of orderly development, although the squatter aristocracy and the speculative capitalists complained bitterly of his democratic innovations. Lord John Russell was well enough satisfied with his work to send him in 1845 to be Governor of New Zealand, which was in still more desperate straits, for the insurgent Maoris were then preparing to exterminate the British settlers. He collected troops and munitions at Adelaide, and two months after his arrival he ended the war by a treaty satisfactory not only to the whites but to the natives also, who had learned to trust his justice, firmness, and good faith. He reformed the financial administration of this colony also and introduced economy and efficiency. In order to understand thoroughly the native question he set to work to learn the Maori language without grammar or dictionary, and became deeply interested in the myths and customs of the New Zealand aborigines, collecting the materials for a great work on the subject, which were lost by fire. He began his labor over again, and published some years afterward his "Polynesian Mythology." He was so bent on preserving all the islands of the Southern Seas for a future great colonial empire of Great Britain that he importunately urged the home Government to prevent the French annex-

tion of New Caledonia. Not alone in that did he offend his official superiors, but he disobeyed every order that came when he considered it unwise or inexpedient. A constitution that was sent to him to be promulgated he boldly set aside, declaring it suspended. He insisted on carrying out the principle that the lands of the Australasian colonies were the heritage of the British people and advocated allotments to cultivators only and the extreme claims of labor. When he returned to England the Duke of Newcastle, who was Secretary for the Colonies, refused to see him; yet he was impelled shortly afterward to make use of his genius for organization and conciliation for the purpose of extricating Cape Colony from its plight of disorder and bankruptcy. Delegates of the colonists had obtained representative institutions, but had left England sore and dissatisfied with the result of their mission. There were serious troubles with the Boers, and the Kaffirs were on the point of revolting. The Colonial Secretary, to avoid having his orders again set at naught, gave Sir George Grey unlimited discretion. When the new Governor arrived he granted to the Hottentots the rights that had been refused in London, came to an understanding with the discontented Boers, reorganized the finances and the civil service, and then had to face a general rebellion of the Kaffirs. The commanding general proposed to concentrate on an inner line of defense, but Sir George Grey ordered the feeble outposts to hold their ground, and in a short time he broke up the formidable confederacy and had the Kaffirs at his mercy. To save them from famine he distributed food among them, settled many thousands on lands in the colony, and employed the rest on public works. The Indian mutiny then broke out, and he took the bold initiative of directing transports bound for China to go to Calcutta, as well as dispatching troops, guns, and money from the Cape to India, leaving himself almost helpless against a renewal of the dangers scarcely past. In the next two years he thought out and freely enunciated the scheme of South African Confederation without caring about the policy of the British Government, and this led to his summary recall by the Conservative Colonial Secretary. Before he arrived in England the Duke of Newcastle had returned to the Colonial Office and had reappointed him, but when he again took up the reins of power at the Cape he found his authority and prestige weakened. The native chiefs were grateful and devoted, but his hopes of reconciling the interests of the Dutch and the English and welding them into a nation were blasted. His second term of office was marked by the construction of railroads and the founding of benevolent institutions. When he left the colony he gave to it his magnificent library and collection of manuscripts. He was appointed Governor of New Zealand once more in 1861. The Maoris were angry at the flagrant breaches of the treaty, and wholesale robbery of their lands, and through the laxness of the administration they had provided themselves with arms. Sir George Grey insisted that the Government should frankly acknowledge the wrongs it had committed and make reparation to the natives. The Cabinet hesitated to humiliate itself in this way until the war broke out. The Governor, when he was empowered to offer full amends to the injured natives, went among them, won over some of the chiefs to fight devotedly on his side, and with his native army carried without the loss of a man the stockades which the commander of the British troops was afraid to assail. The Maoris simply would not fight against their kindred after they knew of the promises that the Governor held out to them. After having pacified the island a second

time Sir George Grey retired in 1868. He had a promise of the governor-generalship of Canada, the stepping-stone to the viceroyalty of India, before he threw himself into the breach to save New Zealand, and thus placed himself out of the line of promotion. After returning to England he offered himself as a candidate for Parliament to the electors of Newark, but his extreme radical views on imperial and colonial questions alarmed Mr. Gladstone and Lord Granville, who refused to accept him as the party candidate. He proposed, in particular, a scheme for giving home rule to Ireland that differed little from Mr. Gladstone's own measure offered in 1886. Sir George Grey withdrew his candidature rather than give the seat to a Tory, and after a little while returned to New Zealand. In 1874 he threw himself into the political contest that was waged in the colony for the preservation of the provincial legislative bodies and autonomous institutions that were mainly his own creation. When his party came into power he was called upon to take the premiership. In this new and singular position he found freer scope than ever for his extremely democratic ideas. He devoted his efforts to strengthening the rule of the people, and carried through a measure practically conferring manhood suffrage and establishing the principle of one man one vote. In combating monopolies in every form he was a pioneer and was less successful, and in his proposals for the radical reform of taxation, the election of the Governor by the colonists, the nationalization of coal mines, and other radical innovations he sustained a series of mortifying defeats entailing his resignation. He continued for several years to sit in the Assembly. In 1890 he represented New Zealand in the Federal Convention of Australasia at Sydney. He made a tour through Australia, and was received by the workmen everywhere with enthusiastic demonstrations, to which he responded with expressions of ardent sympathy for the claims of labor and hope that its paramount rights would be secured through universal suffrage. After this he lived among his books in the luxurious paradise that he had created on the island of Kawau until 1895, when, bestowing his valuable library as a gift on the citizens of Wellington, he took up his abode in England, having in 1894 been appointed a member of the Privy Council. He was knighted in 1848.

Gurney, Alfred, an English clergyman, born in 1843; died at Roehampton, Nov. 28, 1898. He was educated at Exeter College, Oxford, took orders in 1873, and from 1879 till shortly before his death was vicar of St. Barnabas's Church, Pimlico, London. He was a pronounced High Churchman, but his "Our Catholic Inheritance in the Larger Hope" (1888) is an extremely liberal treatment of the theme. His other works are "The Vision of the Eucharist and Other Poems" (1882); "Day Dreams"; and "A Christmas Faggot" (1884).

Haweis, Mrs. Mary Eliza (Joy), an English artist and author, born in London, Feb. 21, 1852; died there, Nov. 28, 1898. She was the daughter of F. M. Joy, an artist. She studied art under his direction, and exhibited her first picture in the Royal Academy at the age of sixteen. In 1876 she married the Rev. H. R. Haweis, a popular English writer. She continued to practice her art after marriage, and was the cover designer and illustrator of all of her own and her husband's books. Her published works include "Chaucer for Children," which quickly passed through several editions (1876); "The Art of Beauty" (1877); "The Art of Dress" (1879); "Chaucer for Schools" (1880); "The Art of Decoration" (1881); "Beautiful Houses" (1882); "Chaucer's Beads," a birthday book, (1884); "Rus in Urbe" (1886); "Tales from

Chaucer" (edited; 1887); and "A Flame of Fire," a novel (1897).

Herz, Cornelius, a French adventurer, born in Besançon in 1848; died in Bournemouth, England, July 6, 1898. His parents were German Jews, and after passing through the schools of his native town he studied medicine in Germany. Settling in Paris, he had a hard struggle with poverty. At the beginning of the war of 1870 he joined the army of the Loire, served as adjutant, and in 1871 was admitted as a foreigner to the Legion of Honor. After the war he went to the United States, became an American citizen, obtained a medical diploma, married the daughter of a Boston manufacturer named Sarony, and established himself in business in San Francisco, devoting himself to the industrial applications of electricity. Returning to Paris in 1877, he started an electric-light concern, afterward took up the working of the patents of the inventor Marcel Despretz for the transmission of power by electricity, attempted to get control of the telephone company, and in 1879 organized the Paris Electric-Light Company. He became associated with politicians and played a rôle also in the scientific world, and in financial circles attained an influential place, attaining such eminence that in 1880 he was made a grand officer of the Legion of Honor. In the irregularities of the Panama Canal enterprise he was the chief intermediary, and when the scandal transpired, pursued by detectives, he fled from France to Italy, then to Germany, and finally took refuge in England, fallen from his great estate, yet formidable in the possession of all the secrets of the dark business. He was condemned by default to five years' imprisonment and expelled from the Legion of Honor, and the French Government applied persistently for his extradition, but his lawyers, by means of medical certificates of failing health and other pleas and delays, defeated the proceedings. In 1897 Dr. Herz made an offer to reveal everything to the Panama Inquiry Committee, but when the committee set out for Bournemouth he withdrew his promise.

Jenner, Sir William, an English physician, born in Chatham in 1815; died in Bishop's Waltham, Dec. 11, 1898. He was the son of an innkeeper, studied at University College, London, was licensed as an apothecary in 1837, entered upon the practice of medicine in London, and was graduated as doctor at the University of London in 1844. He devoted himself to hospital work, and on becoming a member of the Royal College of Physicians in 1848 withdrew from practice to take the Professorship of Pathological Anatomy in University College, and the post of assistant physician to the college hospital. He became a fellow of the Royal College of Physicians and Goulstonian professor in 1852; also physician to the children's hospital, and in the following year physician to the London Fever Hospital. In 1854 he was appointed physician to University College Hospital, and in 1857 Professor of Clinical Medicine. He was chosen physician extraordinary to the Queen in 1861, and in 1862 physician in ordinary and appointed also to the chair of the Practice of Medicine in University College. He became physician in ordinary to the Prince of Wales in 1864, and was created a baronet in 1868. From 1881 till 1888 he was President of the Royal College of Physicians. He retired from practice in 1889, but remained in the Queen's service till 1893. As a teacher and as a physician he was alike eminent. His greatest contribution to medical science was the discovery of the essential difference between typhoid and typhus fevers. His chief works were on the "Identity or Non-Identity of Typhus and Typhoid Fevers," and on "Diseases commonly confounded under the Term

Continued Fevers." He also published lectures on emphysema, diphtheria, rickets, and tuberculosis.

Kalnoky, Count Gustav Siegmund, an Austrian statesman, born in Lettowitz, Moravia, Dec. 29, 1832; died in Brünn, Feb. 13, 1898. He belonged to a Hungarian family ennobled in the fourteenth century, entered the diplomatic service in 1854, was first attached to the legations at Munich and Berlin, went to London in 1859 as secretary of the embassy, and 1871 was sent to Rome as envoy extraordinary and minister plenipotentiary *ad interim*. He was appointed in 1874 minister to Copenhagen, where he remained until after the conclusion of the treaty between Austria and Prussia. He was sent later on a special mission to St. Petersburg, and in 1880 was appointed ambassador at the court of the Czar, where he remained until he was, on Nov. 20, 1881, made Austro-Hungarian Minister of Foreign Affairs and of the Imperial House. The alliance with Germany which Count Andrassy had arranged with Prince Bismarck was extended into the Triple Alliance, and this was renewed in 1891. Serious difficulties with Russia, arising out of the Bulgarian situation in 1887, after Alexander of Battenburg had been forced to abdicate, he succeeded in smoothing over. He reconciled the Hungarians to the measures necessary for the organization of Bosnia, but was finally compelled to resign in May, 1895, because he had failed to forward to the Vatican Baron Banffy's vigorous remonstrance against the assumption of influence and authority in Hungarian domestic politics by the papal nuncio, Monsignor Agliardi. He was always an advocate of cordial relations between Austria, Germany and Russia, and of the maintenance of the *status quo* in the Balkans, as the sole means of conciliating Russia.

Kanthack, Alfredo Antunes, a British pathologist, born in Brazil, March 4, 1863; died in Cambridge, England, Dec. 22, 1898. His father, a German, was British consul at Para. The son was educated in Germany and at Cambridge, becoming Professor of Pathology at Cambridge in 1897. He was eminent in his profession and his loss was much felt both in England and in Germany. With H. D. Rolleston he published "Leprosy in India" (1892); "Manual of Practical Morbid Anatomy" (1894); "Manual of Practical Bacteriology" (1895).

Kingsford, William, a Canadian historian, born in London, England, in 1819; died in Ottawa, Ontario, Sept. 29, 1898. He was an engineer, and his name is associated with public works in Canada, among them the Victoria Bridge at Montreal. He was the author of "The History, Structure, and Statistics of Plank Roads in the United States and Canada" (Philadelphia, 1851); "Impressions of the West and South during a Six Weeks' Holiday" (Toronto, 1858); "The Canadian Canals: Their History and Cost" (1865); "The History of Canada" (Montreal and London, 1887-'88), the last named a notably careful work.

Kung, Prince, a Chinese statesman, born in 1880; died in Peking, May 29, 1898. He was a younger brother of the Emperor Hsien-Fang, and when direct diplomatic relations with European nations were established as the result of the war of 1859 he was appointed president of the Tsung-li-Yamen, the newly constituted board of foreign relations. When Hsien-Fang died a few months later he concocted and carried to a successful issue the palace revolution by which the two Empresses came to be regents, and he continued to guide and direct the affairs of the court until the unfortunate issue of the conflict with France compelled him to retire in 1884. When the Japanese war broke out in 1894 the Empress Dowager called him from the privacy and seclusion in which he had passed his life in the

interim, devoting himself to charitable works. He was asked to resume his former offices in conjunction with Prince Ching. Years and sickness had impaired his energy, and repugnance to holding intercourse with barbarian diplomatists kept him away from the meetings of the Tsung-li-Yamen, as well as unwillingness to connect himself with disasters and defeat. He thereupon took no active part in the counsels of the Yamen or in the peace negotiations.

Lewis, Thomas Hayter, an English architect, born in London, July 9, 1818; died there, Dec. 10, 1898. He was articled to Joseph Parkinson, the architect, and was subsequently a pupil of Sir William Tite's. In 1841-'42 he traveled through France, Germany, Italy, Sicily, and Greece, and many of his architectural sketches made at this time were published in the "Dictionary of the Architectural Publication Society." The first building of importance designed by him was the Alhambra, intended for the use of a scientific institution, the Panopticon. In 1865 he became Professor of Architecture at University College, London, and in 1871 was made dean of the faculty of arts. On his resigning his professorship in 1881 he was made professor emeritus. The south wing of the university buildings was designed by him, but he was not responsible for the additions made in the present decade. He contributed the articles on ancient and modern architecture in the ninth edition of the "Encyclopædia Britannica" and published in 1888 a work on "The Holy Places of Jerusalem." In 1894 he contributed an appendix on Byzantine sculpture to Naville's "Anas el Medineh." His opinions on architectural matters were held in great esteem by his contemporaries.

Liddell, Henry George, an English educator, born in Durham in 1811; died in Ascot, Jan. 18, 1898. He was the son of a clergyman, was educated at Charterhouse School and Christ Church, Oxford, took a first class in 1833 in both classics and mathematics, was ordained priest in 1838, and remained in the university as tutor, proctor, select preacher, and examiner, working at the same time with Scott, of his own college and year, who became Dean of Rochester, at the Greek lexicon, which has since been the portal to the Greek classics of all English-speaking students. The first edition appeared in 1843, the seventh in 1883, and shortly before his death he saw the proofs of a new edition through the press. In 1846 he was appointed head master of Westminster School. He was one of the commissioners who revolutionized the studies at Oxford in 1852 in opposition to the university authorities. In 1855 he returned to Oxford as Dean of Christ Church. Under his firm rule this college continued for many years to be the largest of the Oxford schools, while ceasing gradually to be the exclusive resort of the wealthy and noble students. Dr. Liddell was Whitehall preacher and the Prince Consort's domestic chaplain. He published in 1855 a "History of Rome," covering the periods anterior to the Christian era.

Liezen-Mayer, Alexander von, a German painter, born in Raab, Hungary, in January, 1839; died in Munich, Feb. 19, 1898. He studied in the Academy of Vienna under Anschuetz, and at Munich under Hiltensperger, entered the school of Piloty in 1862, and in 1865 won the prize given by the Munich Academy. In the same year his famous painting representing the beatification of St. Elizabeth was completed. After leaving Piloty's school he painted numerous portraits and drew illustrations for books, and later many notable works representing scenes from history and from Shakespeare and "Faust." "Elizabeth Signing the Death Sentence of Mary, Queen of Scots," "Inogen and Iachimo," and a portrait of the Emperor Franz Josef are

among his most celebrated canvases. He became a director in the School of Art in 1880, a professor at the Munich Academy in 1883, and a member of the Vienna Academy in 1887.

Linton, Elizabeth Lynn, an English author, born in Crossthwaite, Feb. 10, 1822; died in London, July 14, 1898. Her father was the Rev. James Lynn. Going to London in 1845, she had the advice of Walter Savage Landor in her first literary efforts. The novel "Azeth, the Egyptian," was followed by "Amynone," and this by "Realities," after which she turned her attention to journalism, writing incisive and sprightly articles for the dailies and weekly reviews. In 1858 she married William James Linton, wood engraver and Chartist agitator, from whom she was separated in later years, he living in the United States and she in England. In 1865 she published "Grasp your Nettle," and shortly afterward "Ourselves: Essays on Women." She became a most vigorous opponent of the so-called movement for the emancipation of women. In 1872 she published anonymously a caustic satire on contemporary Christianity in the form of an allegorical novel, "The True History of Joshua Davidson," which was denounced as a subversive and blasphemous work. Her other books include "Patricia Kemball," "Lizzie Lorton," "Sowing the Wind," "Under which Lord?" "Leam Dundas," "My Love!" "The World Well Lost," "Ione Stewart," "Paston Carew," "Through the Long Night," "The One Too Many," "In Haste and at Leisure," "Dulcie Everton," "With a Silken Thread," and "The Mad Willoughbys." On the question of the "new woman" she wrote a series of satirical articles for the "Saturday Review," reprinted under the title of "The Girl of the Period," which created a great sensation.

Louise, Queen of Denmark, born in Cassel, Sept. 7, 1817; died in Copenhagen, Sept. 29, 1898. She was the third daughter of Wilhelm, Landgrave of Hesse-Cassel, by Princess Louise Charlotte, daughter of Frederick, Prince of Denmark. She was educated in Denmark, where her father served in the army, becoming proficient in languages and in music and painting. On May 26, 1842, she was married to Prince Christian of Holstein-Sonderburg-Glücksberg. Until her husband was declared heir apparent in 1882 they lived in somewhat straitened circumstances in Copenhagen. They kept away from the frivolous court of Frederick VII, and educated their children on enlightened principles, paying particular attention to riding and gymnastics. These children all made great marriages in time, Prince Christian to Princess Louise of Sweden, Princess Alexandra to the Prince of Wales, the King of the Hellenes to the Grand Duchess Olga, Princess Dagmar to the Czar Alexander III, Princess Thyra to the Duke of Cumberland, and Prince Waldemar to the Princess Marie of Orleans, daughter of the Duc de Chartres. Prince Christian became King of Denmark on Nov. 15, 1863. Queen Louise, by her attractive ways and unflinching tact, helped to gain the willing allegiance of the Danes for the "protocol prince" who had been imposed on them from outside. She was a model of all the domestic virtues, and retained through life her youthfulness of mind and appearance. She was credited with exercising considerable influence in political matters. In Germany she was supposed to have had a large share in bringing about the Franco-Russian alliance, and the avoidance of a rupture between England and Russia has been attributed by some to consideration for her feelings.

Lugard, Sir Edward, an English soldier, born in Chelsea in 1810; died Oct. 31, 1898. He was the son of a captain in the army, and was educated at Sandhurst, entering the service in 1828, and im-

mediately going out to India. He served as brigade major in the Afghan war of 1842, was assistant adjutant general through the Sikh war, was adjutant general of the British forces in the Punjab campaigns of 1848 and 1849, and in the Persian expedition of 1856 was chief of staff and obtained the honor of knighthood for his services. He was appointed adjutant general in India in 1857, commanded an infantry division at the siege of Lucknow and subsequent operations, and was rewarded for his services by promotion to major general in 1858. He became lieutenant general in 1865 while serving as permanent Under Secretary for War, which office he filled from 1861 till 1871. After that he was president of the Army Purchase Commission. In 1872 he became full general.

Mackay, George Eric, an English poet, born in London, Jan. 25, 1851; died June 2, 1898. He was a son of the late Charles Mackay, the well-known author, and wrote at first under the signature George Eric Lancaster. His later work appeared under his own name shortened to Eric Mackay. His most popular work, the sale of which reached 35,000 copies, is "The Love Letters of a Violinist" (London, 1886), written while he was walking in the country. His other works are "Songs of Love and Death" (1875); "Pygmalion in Cyprus and Other Poems" (1880); "Ad Reginam" (1881)—the third edition of this book appeared the same year with the addition of "Sonnets now First Published"; "Gladys the Singer and Other Poems" (1887); "A Lover's Litanies" (1888); "Nero and Actea" (1891); "The Lover's Missal"; "White Rose of the Crown" (1894); "A Song of the Sea, My Lady of Dreams, and Other Poems" (1895); "Arrows of Song" (1896); and "The Little Gods of Grub Street: A Satire" (1897).

Madrazo, Federico, a Spanish painter, born in Rome in 1815; died in Madrid in August, 1898. He studied in Paris in the *atelier* of Winterhalter, and in a short time reached such rank as a portrait painter that he was appointed court painter at Madrid. Subsequently he was made director of the Madrid Academy of Fine Arts and was nominated a Senator. His "Godfrey of Boulogne proclaimed King of Jerusalem" hangs in the Versailles gallery.

Maliotou Laupepa, King of Samoa, died in Apia, Aug. 22, 1898. He succeeded Maliotou Talavua on Nov. 8, 1880. Tamaese, who contested the succession, was favored by the Germans, then desirous of establishing a protectorate over the Samoan Islands, and in 1887 Maliotou was seized by the German forces in Samoa and deported, first to Cameroons, and thence to Jaluit, one of the Marshall Islands. In response to the protests of Great Britain and the United States, especially the latter, which declared that the institution of a German protectorate would be regarded as an unfriendly act, the German Government brought back the exiled King, and on Nov. 9, 1889, he was formally restored by proclamation of the consuls of Germany, the United States, and Great Britain.

Mallarmé, Stéphane, a French poet, born in 1841; died in Paris, Sept. 11, 1898. He was well versed in the English language, which he taught in a college in Paris till 1893. He made a translation of the poems of Edgar A. Poe, and was the author of poetry that appealed to the votaries of the decadent school, of which he has been regarded as the chief master since Verlaine's death.

Marks, Stacy, an English painter, born in London in 1829; died there, Jan. 9, 1898. He was the son of a coach-builder, who brought him up in his business until this failed, leaving him free to follow his bent for art. He entered the school of the Royal Academy in 1851, studied also in Paris, and

in 1853 his picture representing "Dogberry" was accepted for the Academy exhibition. His first success was won by "Toothache in the Middle Ages," exhibited in 1856. He sold his pictures after this, and obtained profitable commissions for mural decoration. He was elected an associate of the Royal Academy in 1871 and a member in 1878. He painted many humorous pictures of bird life. One of his most successful paintings was "Science is Measurement," representing an ornithologist in his laboratory. He wrote his reminiscences.

Martineau, Russell, an English scholar, born in Dublin, Jan. 18, 1831; died in Sidmouth, Dec. 15, 1898. He was a son of the distinguished Unitarian theologian and philosopher, James Martineau, who at the time of his son's birth was pastor of a congregation in Dublin. The son received his education at the University of London, and in 1857 was appointed an assistant in the printed book department of the British Museum, remaining there until 1896. He was a Hebrew scholar of note, and was familiar with most of the languages of northern Europe. He catalogued the extensive collections of Luther's works in the British Museum, translated Gregorovius's work on Corsica, and edited the standard English version of Ewald's "History of the People of Israel" (1867-'74), and also the Song of Solomon for the Polychrome Bible.

Moreau, Gustave, a French painter, born in Paris in 1836; died there, April 19, 1898. He was a pupil of Picot in the School of Fine Arts, and exhibited in 1852 a "Holy Family." From the beginning the idealism and poetry of his art aroused the admiration of the young and progressive and the condemnation of the conservative lovers of established methods. As early as 1853 he took his place with the masters by painting "Darius fleeing after the Battle of Arbela" and the "Song of Songs," the latter of which was purchased by the Government and hung in the museum at Dijon. In the Universal Exposition of 1855 he showed "Athenians delivered up to the Minotaur." For several years he exhibited nothing, only to come out in the Salon of 1864 with one of his most striking works "Oedipus and the Sphinx," which gave rise to as violent polemics as ever were excited by a picture. His subsequent productions include "Jason"; "Death and the Man"; "Orpheus torn by Bacchantes," purchased by the Luxembourg gallery; "Diomedes devoured by her Horses"; "Prometheus"; "Jupiter and Europa"; "Hercules and the Lernean Hydra"; "Salome"; "St. Sebastian," painted in distemper with wax; "Jacob and the Angel"; "Moses cast upon the Nile"; "David"; and the "Sphinx Divined." These last were shown at the exposition of 1878, with six water colors as brilliant and vibrating in color as his works in oil. He won medals at the Salons of 1864, 1865, and 1878, received the Legion of Honor in 1875, and was nominated to the Academy of Fine Arts in 1888. Four years later he was elected professor at the École des Beaux-Arts.

Müller, George, a British philanthropist, born in Kroppenstadt, Prussia, Sept. 27, 1805; died in Bristol, March 10, 1898. He was sent to the Halberstadt Church School at the age of eleven and thence to the Nordhausen Gymnasium and entered the University of Halle as a divinity student. Although intended for the Christian ministry from the beginning, his life in school and at the university was given up in a great measure to idle pleasure, and his irregularities and shifts to obtain money got him into frequent trouble. During a walking tour in Switzerland he was suddenly overcome with religious emotion at a prayer meeting, and thenceforth he determined to be a missionary. His father was opposed to his adopting such a career, and withdrew

his allowance. He began preaching in August, 1826, and when he reached the end of his stock of money he wrote to a noble lady to solicit a loan. She did not reply, but some one, writing anonymously in a religious strain, sent him a parcel of silver money. In 1829 he went to London and worked as a missionary of the society for propagating the Gospel among the Jews until his health failed, after which he settled as a minister at Teignmouth and in 1830 at Bristol. He abolished pew rents, setting up a box for voluntary contributions. He was often reduced to the last few shillings of these contributions, but help always came in time, and he firmly believed that if he prayed his wants would be supplied. In 1834 he founded the Scriptural Knowledge Institution to supply Bibles and other things needed in Sunday schools and missions, resolving not to ask for worldly patronage nor to contract debt. In the following year he established in Bristol an orphan home, praying for a site, £1,000 to build with, and helpers to care for the children, all which came to him. The number of children supported in the home rose to 297 in 1856, when he said that £84,000 had been given him for the orphans as the result of prayer. The gifts still increased until in 1875 there were 2,000 children being cared for and he had received in donations £750,000 without ever having appealed personally to any one. He published statements and balance sheets, however. He addressed students in colleges and theological seminaries and other audiences whenever he had an opportunity, and between 1875 and 1883 he traveled through Europe, America, and Asia on evangelistic tours. In 1892 he made another missionary journey over the continent. Altogether he delivered 3,000 sermons in foreign lands, traveling 150,000 miles, and when at Bristol he preached twice every Sunday up to his ninetieth year, besides speaking frequently during the week.

Munk, William, an English physician, born in 1815; died in London, Dec. 20, 1898. He was educated at University College, London, and at the University of Leyden, graduating M. D. from the latter in 1837. In 1844 he was admitted member of the Royal College of Physicians, and fellow in 1854, and during his long life held several professorships. He was considered the leading authority on smallpox. His published works are: "Mémorial de J. A. Paris, M. D." (1857); "The Roll of the Royal College of Physicians of London" (1861-'78); "Euthanasia" (1887); "Life of Sir Henry Hallford" (1895).

Nicolas, Ernest (Signor NICOLINI), a French operatic tenor, born in Tours, France, Feb. 23, 1834; died in Paris, Jan. 17, 1898. He was the son of an innkeeper of Dinard. The singer was a pupil of the National Conservatory of Singing and Declamation, Paris, and was graduated by that institution in comic opera in 1855, with the honors of a second *accessit*. He was at once engaged at the Theatre de l'Opéra Comique in Paris, but, after essaying one or two rôles without marked success, he retired therefrom. In 1859 he went to Italy, where he continued his studies and entered the ranks of artists of grand opera. He was favorably received and sang with much success in Florence, Turin, and other cities. He visited Paris in 1862, and repeated his Italian successes at the Salle Ventadour. He appeared shortly afterward before an English audience in concerts given by Lucca and with others at St. James's Hall. An engagement at Covent Garden was secured for him, but resulted in failure. He then went again to the Continent and followed the fortunes of different operatic ventures until 1872, when, on his reappearance in London as Faust, he achieved a positive and enduring triumph. Backed by this success, he became a star, and as such visited the

principal cities of Europe for several years with his own company. He became associated with Adelina Patti, and, besides singing with her in all her engagements in Europe, visited the United States several times as her principal support and received much favor from American audiences. At length, after an association of many years, he and Patti were married at her home, Craig-y-nos Castle, Wales, June 10, 1888. Though he was not endowed with a voice of much power, his notes were sweet and pure, added to which his pleasing stage presence and marked ability as an actor endeared him greatly to his audiences. During the later years of his life he lost his voice through illness, and he had ceased to sing long before his death.

Orton, Arthur, an English impostor, born in London in 1835; died there, April 1, 1898. He was the son of a shipping butcher of Wapping, emigrated to Australia, and carried on the business of a slaughterman in Wagga Wagga, New South Wales. He went to England in 1866 to lay claim to the Tichborne baronetcy and estates, pretending to be Sir Roger Tichborne, who had been educated in France and had served in the army and had been on a vessel that sailed from Valparaiso and foundered at sea in 1854. Lady Tichborne believed her son to be still living, heard that he was in Australia, and when Orton appeared in answer to her advertisements and recalled to her mind many incidents of Roger Tichborne's childhood and youth, she was thoroughly convinced that he was the son, although he was very different in education and breeding and even in stature and appearance. A jury, after a trial in 1871, lasting one hundred and one days, was satisfied that he was not Sir Roger Tichborne. The Tichborne estate had spent £92,000 in defeating his claim. Orton was then arrested for perjury and forgery, and a trial that lasted one hundred and eighty-eight days resulted in his being found guilty in February, 1874, and sentenced to fourteen years' penal servitude. His counsel, Dr. Kenealy, by means of a virulent newspaper that he established, called the "Englishman," succeeded in turning the alleged wrongs of the "claimant" into a class question, almost into a question of national politics. The lawyer, disbarred for his denunciation of Chief-Justice Cockburn on the bench, founded the Magna Charta Association, delivered violent speeches throughout the country, and in 1875 was elected to Parliament for Stoke. When he moved for a parliamentary inquiry into the Tichborne case he got only two members to support his motion. Public interest in the claimant gradually died out until he was released on ticket of leave, after serving eleven years of his sentence. Orton lectured and showed himself at music halls, but was unable to reopen the question. In 1895 he published a "Full Confession," stating how he had picked the details of young Tichborne's life from persons who had known him, and in time had actually deluded himself with the belief that he was the person whose character he assumed. He had begun to impose on people in the hope of raising a little money to get away from Australia. Finding so many whom he could gull, he abandoned himself to luxury and ease, increasing in bulk from 150 to 350 pounds, and then during his imprisonment declining gradually to his former weight.

Payn, James, an English novelist, born at Rodney Lodge, Cheltenham, England, Feb. 28, 1830; died in London, March 25, 1898. His education was obtained at Eton, Woolwich Academy, and Cambridge, from which latter institution he was graduated in 1854. From 1858 he was editor of "Chambers's Journal," for which he wrote exclusively for several years, and in 1882 he succeeded

Leslie Stephen in the editorship of the "Cornhill Magazine." Besides contributing to various periodicals, he furnished from 1888 the page of "Weekly Notes" so long familiar to the readers of the "Illustrated London News." He was an extremely hard-working man, as the long list of his published works will testify, and after the issue of "Lost Sir Massingberd," in 1864, was very popular both in England and in the United States. He had a wide acquaintance with men of letters, and his cheery, generous nature made him everywhere beloved. It has been well said of him that "he inspired friendship, and he repaid it a hundredfold." He was wholly without professional jealousy, and many popular writers of to-day owe to him in his editorial capacity the earliest recognition of the merits of their work. In his later years he was confined to his home, but his long suffering was borne with quiet courage. "Stories from Boccaccio" (London, 1852) was his earliest work, and it was succeeded by a volume of "Poems" (1853). His subsequent works are: "Stories and Sketches" (1857); "The Foster Brothers" (1859); "Leaves from Lakeland"; "The Bateman Household" (1860); "Richard Arbour" (1861), his earliest distinct success, republished in 1869 as "The Family Scapegrace"; "Melibœus in London" (1862); "Furniss Abbey and Neighborhood" (1863); "Lost Sir Massingberd" (1864), perhaps his best-known novel; "Married Beneath Him" (1865); "People, Places, and Things" (1865); "The Clyffards of Clyffe" (1866); "Mirk Abbey" (1866); "Lights and Shadows of London Life" (1867); "The Lakes in Sunshine" (1867); "Carlyon's Year" (1868); "Blondel Parva" (1868); "Bentinck's Tutor" (1868), originally published as "One of the Family"; "Found Dead" (1869); "A County Family" (1869); "Maxims by a Man of the World" (1869); "A Perfect Treasure" (1869); "Gwendoline's Harvest" (1870); "Like Father, like Son" (1870); "Won—not Wooed" (1871); "Cecil's Tryst" (1872); "A Woman's Vengeance" (1872); "Murphy's Master" (1873); "The Best of Husbands" (1874); "At her Mercy" (1874); "Walter's Word" (1875); "Halves" (1876); "Fallen Fortunes" (1876); "What he Cost her" (1877); "By Proxy" (1878); "Less Black than we're Painted" (1878); "High Spirits" (1879); "Two Hundred Pounds Reward" (1879); "Under One Roof" (1879); "A Marine Resident" (1879); "A Confidential Agent" (1880); "From Exile" (1881); "A Grape from a Thorn" (1881); "Some Private Views: A Collection of Essays" (1882); "For Cash Only" (1882); "Kit: A Memory" (1883); "Thicker than Water" (1883); "Some Literary Recollections" (1884); "The Canon's Ward" (1884); "In Peril and Privation" (1885); "The Talk of the Town" (1885); "The Luck of the Darrells" (1885); "The Heir of the Ages" (1886); "Glow-Worm Tales" (1887); "Holiday Tasks" (1887); "A Prince of the Blood" (1887); "The Eavesdropper" (1888); "The Mystery of Mirbridge" (1888); "The Burnt Million" (1890); "Notes from the News" (1890); "The Word and the Will" (1890); "Sunny Stories and Some Shady Ones" (1891); "A Modern Dick Whittington" (1892); "A Stumble on the Threshold" (1892); "A Trying Patient" (1893); "Gleams of Memory" (1894); "In Market Overt" (1895); "The Disappearance of George Driffeld" (1896); "Another's Burdens" (1897).

Pitt, Henry Mader, actor, born in Albany, N. Y., Sept. 16, 1850, while his father and mother were acting in the United States; died in New York city, March 7, 1898. He was a son of the English actor Charles Didden Pitt, and first appeared upon the stage at his mother's theater, the Theater Royal, Sheffield, England, in a farce called "Under the Rose," in April, 1864. His father, who had been

manager of the theater, having died, young Pitt became his mother's assistant in the management, and on her relinquishment of the theater in 1868 he became stage manager in different theaters in succession, wrote successful plays, and introduced the Volkes family to the public in a pantomime framed by him on of the story "The Forty Thieves." In 1872 he was stage manager of the Queen's Theater, Manchester, and in 1873 he became a member of Robertson's company, playing "Caste." In association with James Alberty he managed a company in the latter's plays, and in 1876 organized the Pitt and Hamilton company, which played successfully three years. In all these companies Mr. Pitt was leading actor as well as manager. On Sept. 29, 1880, he first appeared in the United States, playing Orlando in a revival of "As You Like It" at Wallack's Theater, New York city, as a leading member of the company. For the next two seasons he was a member of Augustin Daly's company, and in August, 1883, he assumed a similar place with the first Madison Square Theater company, playing the title rôle in "The Rajah." For two seasons Mr. Pitt played this part in the principal cities of the United States. A period of desultory playing followed, and in November, 1887, he originated the part of Louis Percival in "Jim the Penman" at the Madison Square Theater, which part he played several hundred times successively. During following years he seldom appeared on the stage.

Plimsoll, Samuel, an English philanthropist, born in Bristol in 1824; died in Folkestone, June 3, 1898. He entered Parliament in 1868 after a prosperous career as a coal merchant, and took up the cause of the seamen. Before that he had published pamphlets on the coal trade and on the rights of labor, but had not identified himself in any way with the objects to which he devoted his public life. In 1870 he introduced in the House of Commons a resolution respecting loss of life and property at sea, in which he advocated a compulsory load line, and in 1871 he embodied this principle in a bill, which was withdrawn. In 1873, in "Our Seamen," he attacked the shipowners with such scathing invective that the public caught up the cry, and a royal commission was appointed. In 1874 he brought in another bill to establish a fixed load line, which was rejected by a majority of only three votes. When, in the following year, the Government withdrew its merchant shipping bill because it had been altered by amendments, transported with passion, he denounced shipowners as speculative scoundrels who send people to their death, and charged those of them who were members of the House of Commons with conspiring to obstruct a bill that would check their murderous tendencies. This outbreak, for which he apologized when threatened with a reprimand, brought the question to an issue. The Government was compelled to introduce a bill embodying some of his demands, though not all, but especially the load line, "Plimsoll's line," which has since been marked on every British ship. He gave up his seat for Derby to Sir William Harcourt in 1880, and was unable afterward to get another. As the seaman's friend and champion he was chosen president of the National Amalgamated Sailors' and Firemen's Union, but was not responsible for the disputes in which it engaged.

Plötz, Berthold von, a German politician, born Aug. 9, 1844; died in Döllingen, July 25, 1898. He was educated in the military cadet school at Potsdam, served as an officer in the foot guards from 1862 to 1864, and as adjutant of a Landwehr battalion in the Austrian and French wars, retiring as captain, after which he devoted himself to agriculture on his estate at Döllingen. He was elected to the Prussian Chamber in 1892 and to the Reichstag

in 1893, and was one of the founders and the parliamentary leader of the Agrarian League, a faction started within the Conservative party to defend the interests of the landowning class, which promoted extreme protection and adopted Anti-Semitic principles and the theory of bimetallism. He was the author of the bourse law placing the produce exchanges under the control of Agrarians, which broke up the exchanges in most German cities.

Potter, Thomas Bayley, an English politician, born in Tadcaster in 1817; died in Midhurst, Nov. 6, 1898. He was the son of Sir Thomas Potter, member of a great commercial firm in Manchester that was influential in political and in philanthropic and social affairs. He was educated at Rugby and at London University, became head of the firm after his brother had broken with the Anti-Corn-Law League, healed the breach and became the fast friend of Cobden, took the leading part with his partner, Francis Taylor, in organizing in 1863 the Union and Emancipation Society which defended the cause of the North in the American war of secession, succeeded Cobden in 1865 as member of Parliament for Rochdale, and in 1866 founded the Cobden Club, which by its publications, its transactions and prize essays, and its anniversary dinners has kept the arguments for free trade before the public.

Price, Bartholomew, an English mathematician, born in Coln Saint Dennis, Gloucestershire, May 14, 1818; died Dec. 30, 1898. He was educated at Pembroke College, Oxford, and was graduated in 1840. In 1844 he became a fellow of Pembroke, and in 1853 was appointed Professor of Natural Philosophy at Oxford. He held honorable places connected with the university, was for many years secretary of the Clarendon Press, resigning that office in 1885, and from 1892 until his death was master of Pembroke College. He published "Treatise on the Differential Calculus" (1849); "Treatise on the Infinitesimal Calculus": Vol. I, "Differential Calculus" (1852); Vol. II, "Integral Calculus and Calculus of Variations" (1854); Vol. III, "Statics and Dynamics of a Particle" (1856); Vol. IV, "Dynamics of Material Systems" (1862; 2d ed., 1889).

Puvis de Chavannes, Pierre, a French painter, born in Lyons, Dec. 4, 1824; died in Paris, Oct. 25, 1898. He studied with Henri Scheffer and Thomas Couture, painted in 1861 the mural decorations for the Amiens library, and produced many other series in subsequent years for Marseilles, Lyons, Poitiers, and other French cities, for the new Sorbonne and the Pantheon in Paris, and for the Boston public library. Among the most important are the "Life of Sainte Geneviève" in the Pantheon, the "Sacred Grove," and the "Vision of Antiquity" and "Christian Inspiration" at Lyons. Mystic figures, marked by repose, grace, and dignity, scattered at wide intervals on a background of cold, neutral color, are the chief characteristic of his work, which at first was regarded as from its novelty as eccentric and artificial, and in the end came to be looked upon as the acme of chaste and classic beauty in decorative art.

Quain, Sir Richard, a British physician, born in Mallow, near Cork, Oct. 30, 1816; died in London, March 13, 1898. He was graduated as doctor of medicine in the University of London in 1842, attained a large practice rapidly, was elected a fellow of the Royal College of Physicians in 1851, became physician to the Brompton Hospital for Chest Diseases in 1855, a member of the senate of the London University in 1860, and chairman of the Brown Institution. In 1865 he was appointed a member of the royal commission for the investigation of the cattle plague, and not only induced the commission to recommend strict quarantine against infected districts and the slaughter of all

animals attacked or exposed to infection, but by his articles in the "Times" and the "Saturday Review" prepared the public for the acceptance of these stringent measures. He was appointed a member of the General Medical Council in 1863, and became chairman of the Pharmacopœia Committee, and in 1891 president of the Council. He edited a "Dictionary of Medicine." His researches into the causes of fatty degeneration gave him a great reputation in the medical profession while he was still young. He was distinguished for his power of rapid and acute diagnosis. He lived on cordial terms with many famous authors and artists, and on account of his genial humor was a social favorite.

Rawlinson, Sir Robert, an English engineer, born in Bristol, Feb. 28, 1810; died in London, May 31, 1898. He was the son of a builder, began life as a stone mason, became an engineer under Robert Stephenson in the construction of railroads, and in 1840 assistant surveyor of Liverpool, in which post his attention was turned to sanitary engineering. He was appointed an inspector under the public health act of 1848, and exposed without fear or favor the overcrowding, want of proper sewerage or water supply, and general filthy condition of many towns. In 1855, after the mismanagement of the Crimean campaign had driven a Cabinet from office, he was sent as one of the sanitary commissioners who immediately checked the appalling mortality in the hospitals and camps from insanitary causes. In 1863 he recommended and planned sewerage, drainage, reservoirs, streets, parks, etc., costing £1,850,000, that gave employment to the starving cotton operatives of Lancashire. He was chairman of the royal commission appointed in 1866 to inquire into the pollution of rivers, one of the commissioners that investigated the sanitary condition of Dublin in 1879, and on the constitution of the Local Government Board he became chief engineering inspector. He was knighted in 1883. In 1894 he was elected president of the Institution of Civil Engineers.

Richebourg, Jules Émile, French dramatist, born in Meuvy, Haute Marne, France, April 23, 1833; died in Bougival, Jan. 26, 1898. He was, like Siderot, the son of a cutler, and was brought up to follow his father's business. At the age of seventeen he sought employment in commercial pursuits in Paris, but after a short experience in business and as a tutor he secured a place on the staff of "Figaro" as a writer. His first effort at novel writing was the "Contes Enfantsins" (1857). In 1862, after failing several times to obtain a favorable hearing, he produced a successful drama, "Les Nuits de la Place Royale," of which Leon Pournin was joint author. A comedy *vaudeville* called "Un Ménage à la Mode," which he gave to the public in 1863, firmly established him as a dramatist. But his greatest distinction was that he was a wonderfully prolific writer of popular fiction. His first greatly successful romance "Lucienne" appeared in 1858, and for forty years he turned out reams of melodramatic and blood-curdling tales and became very wealthy. He was a member of the Directory of the Société des Gens de Lettres and a Knight of the Legion of Honor. At the time of his death he was the literary and dramatic critic of "Le Petit Journal." His best-known books are "Contes Enfantsins" (Paris, 1858); "Homme aux Lunettes Noires" (1864); "Cœurs des Femmes" (1864); "Les Barbes Grises" (1867); "Recits devant l'Âtre" (1867); "Les Franc-tireurs de Paris" (1872); "La Comédie au Village" (1872); "Les Soirées Amusantes" (12 vols., 1874-'75); and "La Dame Voilée" (1875).

Rivier, Alphonse Pierre Octave, a Belgian legal writer, born in Lausanne, Switzerland, Nov. 9,

1835; died in Brussels, Belgium, July 21, 1898. He studied law at the University of Lausanne and in Berlin, and from 1863 to 1867 was a professor in the University of Berne. Since 1868 he had been professor at the University of Brussels. He was a high authority on matters of international law and was the editor-in-chief of the "*Revue de Droit International*" and of the first six volumes of the "*Annuaire de l'Institut de Droit International*." The most important of his original works are "*Introduction Historique au Droit Romain*" (1872); "*Traité Elementaire des Successions à Cause de Mort en Droit Romain*" (1878); "*Revue Littéraire et Historique des Systèmes et Théories du Droit des Gens Depuis Grotius*" (1885).

Rops, Félicien, a Belgian artist, born in Namur in 1833; died in Corbeil, France, Aug. 23, 1898. He was of Hungarian parentage. Having studied art in Belgium, he contributed greatly to the success of the humorous journal "*Ullenspiegel*" by fanciful sketches of his friends and contemporaries. He produced also caricatures of the art exhibitions in pen drawings and lithographs, the intense drollery of which reflected the soundest principles of art criticism. He was ambitious as a painter, but, except in some aquarelles, the pictures betrayed processes of his own branch by their dark, smoky coloring. When he took up the lithographer's crayon or the needle of the aquafortist he marked his slightest prints with an accent distinct and original. He was not a moralist, as innumerable erotic skits show, yet his "*Absinthe Drinker*," a marvel of observation and frank realism, was a sermon that many took to heart. As an illustrator also Rops was a master. He enriched with engravings as exquisite for their interpretation as for their drawing the works of the Belgian authors De Coster, Hannon, and De Molder, and, among French writers, those of Gautier, Baudelaire, Barbey, and Mérimée. His later life was passed in France.

Rossi, Cesare, an Italian actor, born in Fano, in the Marches of Ancona, Italy, in 1828; died in Bari, Italy, Nov. 2, 1898. He was as celebrated and popular as a comedian in his own country as was his brother Ernesto Rossi as a tragedian. Against the wishes of his family he became an actor in his twentieth year and was continuously engaged therein for some time as a member of local stock companies, but for more than thirty years as the principal actor and director of his own company, traveling in Italy and Sicily. His work was confined to comic and eccentric rôles, and therein he was regarded as the best representative of the plays of Goldoni and other standard comedies of his country. As a member of his company the famous *Eleanora Duse* first obtained an opportunity to show her ability. The love and respect in which he was held by his comrades and the public is testified by the fact that tokens of condolence were sent on the occasion of his funeral from all parts of Italy, and a representative of the state attended his body to the grave.

Stansfeld, Sir James, an English statesman, born in Halifax, March 5, 1820; died in Rotherfield, Sussex, Feb. 17, 1898. He was graduated at London University in 1840, and called to the bar in 1849. Through his father-in-law, William Henry Ashurst, he became a friend of Mazzini and an ardent advocate of the liberation of Italy, as well as of the enfranchisement of women, the co-operative movement, the abolition of American slavery, and radical principles in British politics. He was elected to Parliament in 1859 and represented Halifax till 1895. He acted with the Nonconformist Radicals, and wrote and lectured in defense of the Italian national movement. In 1863 Lord Palmerston appointed him a Junior Lord of the Admiralty.

This office he resigned when attacked for allowing Italian conspirators to address Mazzini at his house, as appeared from evidence given in the French courts in relation to a conspiracy against the life of Napoleon III. In 1866 Lord John Russell made him Under Secretary for War, and in 1868 he was made a Lord of the Treasury in Mr. Gladstone's Cabinet. He was made a member of the Privy Council in 1869. In March, 1871, he entered the Cabinet as President of the Poor Law Board, and in August of that year, when his office was absorbed in the Local Government Board, he became its first president and displayed much ability in organizing the new department. After the retirement of the Liberal Cabinet in January, 1874, he risked his political future by taking the lead in the movement for the repeal of the contagious diseases acts. He was not included in the Gladstone Government of 1880. After many rebuffs, he ultimately witnessed the triumph of the cause he had fathered when in 1886 his motion for the repeal of the obnoxious acts was carried, and a bill framed on it was passed without serious opposition. He eagerly and heartily accepted the policy of home rule for Ireland, and when Joseph Chamberlain left the Cabinet in 1886 on the production of Mr. Gladstone's Irish bills, Stansfeld succeeded him as president of the Local Government Board. He was one of the most ardent Liberal Home Rulers during the six years' opposition, but was not included in Mr. Gladstone's Cabinet of 1892. He was knighted in 1895, when he had retired.

Stirling, Arthur, an English actor, born in London in 1827; died there, Dec. 3, 1898. He made his first appearance on the stage at Plymouth, England, in 1846, and after a short season of subordinate work became a member of the stock company of the Theater Royal, Edinburgh. He was very successful in Scotland, and in 1848-'49 was engaged as stage manager and heavy man for the Queen's Theater, Dublin, then managed by Henry Webb. While Stirling was at the Queen's Theater a strong and life-enduring friendship began between him and Charles Wyndham, who was at the same time a student of medicine in Trinity College, Dublin. Mr. Stirling soon left Dublin to become the principal actor of the Bristol Theater. He was associated there with Madge Robertson (Mrs. Kendal), Henrietta Hodson (Mrs. Labouchere), and George and William Rignold. On Nov. 10, 1852, he made his first appearance in London in a melodrama called "*The Surgeon of Paris*;" or, "*The Massacre of St. Bartholomew*," which was produced at Marylebone Theater. When his season at this theater was ended he became the principal actor in the support of William Creswick, the popular Shakespearean actor, at the Surrey Theater, Southwark. He was greatly liked by Mr. Creswick and by the audiences of the theater, and filled the arduous place of leading man in the legitimate drama at this theater with great distinction for many years. On Jan. 3, 1863, he entered upon his first engagement at a London west side theater, appearing at St. James's Theater as Philip Austin in "*The Dark Cloud*," in support of Miss Herbert. After that season he was stage manager for a time of the Adelphi Theater, London, which was then being managed by Benjamin Webster. He married about this time, and retired from the stage for several years. On the death of his wife he returned to the drama, and on May 29, 1865, appeared at the Adelphi as Dick Thornton in an adaptation by Wilkie Collins and Charles Fechter of "*Black and White*." He also played Robert Audley in the original production of the dramatization of Miss Braddon's novel "*Lady Audley's Secret*." On March 29, 1869, he married the widow of Charles

Vyner, an actor and manager of Melbourne, Australia. Mr. Stirling continued for many years to be associated with the Adelphi Theater and the numerous melodramatic productions at that playhouse. When "The Ticket-of-Leave Man" was revived at her Majesty's Theater, April 14, 1884, Stirling played the part of Hawkshaw for the run of the piece. He then became associated with Henry Irving and the Lyceum Theater. In Miss Mary Anderson's presentation of "Romeo and Juliet," at the Lyceum, Nov. 1, 1884, Stirling was Friar Laurence. Subsequently he played Colonel Damas in "The Lady of Lyons" and Master Walter in "The Hunchback," in support of Miss Anderson during the same engagement. On the opening of the Shaftesbury Theater, Oct. 16, 1888, by Miss Helen Wallis as Rosalind in "As You Like It," Mr. Stirling played Jacques. When Mrs. Langtry produced "Antony and Cleopatra" at the Princess's Theater with Charles Coghlan as Antony to her Cleopatra, Mr. Stirling was the principal actor in their support. Having a sufficient competence and a good home in London, and being a popular member of the Garrick and other clubs and a social favorite, Mr. Stirling did not care to leave London, and he therefore continued as a subordinate member of Sir Henry Irving's company at the Lyceum. His last appearance was in the part of Cranmer in the production of "Henry VIII" at that theater.

Taillade, Paul Felix (Taillade), a French actor, born in Paris, Jan. 15, 1827; died in Brussels, Belgium, Jan. 26, 1898. He was a *protégé* of Mlle. Mars, through whose interest he was admitted to the Conservatoire in Paris in 1845. Previous to that Taillade had been a teacher in a private school. After studying fifteen months under Prevost he made his *début* at the Théâtre Français. For some unknown reason he was not able to keep himself in the ranks of those selected for the first theater of France, but in 1850 at the Gaîté he created the rôle of Bonaparte in "Les Premières Pages d'une Grande Histoire," a part which brought him into popular favor at once and established him in a very successful career as the best romantic and melodramatic actor of his time. He played a great number of parts and was associated with almost all the Parisian theaters except the Théâtre Français. In 1852 he was playing the leading rôles at the Ambigu, in 1853 again at the Gaîté, and then for many years at the Odeon and the Porte Saint-Martin, of which he was an associate manager. In 1863 he played Macbeth at the Odeon and created much admiration by his virile and intense rendition. In 1868 he repeated this effect in his performance of King Lear. In order to present more fully the English idea of these parts Taillade studied the English language and read Shakespeare in his own tongue. Taillade was the author of some indifferent plays and was the original representative of a great number of parts, among which was that of Pierre in "The Two Orphans." His death occurred suddenly while he was leaving the theater in Brussels after a performance.

Tai-Wen-Kun, ex-Regent of Korea, died in Seoul, Feb. 22, 1898. As the father of the present King he acted as regent from the time that he came to the throne in 1863 till he reached his majority in 1874. During this critical period, when forces were pressing from every side to open the Hermit Kingdom to foreign intercourse, the regent with an iron will preserved its isolation and independence. In spite of his cruel tyranny he enjoyed extraordinary prestige in Korea and several times after his downfall he partially regained his former power. When his son shook off his influence he intrigued against him and was the instigator of some of the sanguinary

crimes that have marked the recent history of Korea. Although he was the chief instigator of the anti-Japanese outbreak of 1882, he afterward joined hands with Japan. His share in the conspiracy of 1896 which resulted in the murder of the Queen has not been fully revealed.

Taschereau, Elzias Alexandre, a French prelate, born in Sainte-Marie-de-la-Beauce, Feb. 17, 1820; died in Quebec, April 12, 1898. He was the great-grandson of the first Seigneur de Sainte Marie, was educated in Quebec and in Rome, where he received the tonsure at the age of eighteen, was ordained priest in 1842, and was immediately appointed Professor of Moral Philosophy in the Seminary of Quebec, holding that post till 1854, when he was delegated to obtain the Pope's ratification for the decrees of the Provincial Council. While in Rome he received the degree of doctor of canon law, and on his return to Quebec in 1856 he was made director of the minor seminary, and in 1859 of the great seminary, becoming superior of the latter in 1860 and at the same time rector of Laval University. After a third visit to Rome in 1862, this time in company with the archbishop, he was made vicar general of the diocese. He took part in the Œcumenical Council at Rome in 1870, and on March 19, 1871, was consecrated Archbishop of Quebec, succeeding Monsignor Bailargeon. On July 21, 1886, he received a cardinal's hat, the first ever conferred upon a Canadian.

Tavaststjerna, Carl August, a Finnish poet and novelist, born in Annala, near St. Michel, Finland, May 18, 1860; died in March, 1898. He at first adopted architecture as his profession and went to Paris to continue his studies, but in the Scandinavian colony there he met Björnson and Lie, who persuaded him to devote himself to literature. In 1883 a selection from his juvenile poems was published, entitled "För Morgonbris," which brought him at once into notice by its originality as well as beauty. "Nya Vers," containing three long poems, appeared in 1885, and in 1886 "Barndomsvänner," a prose romance somewhat autobiographic. Among his subsequent works are "En Inföding," a novel (1887); "I Förbindelser," a collection of novelettes; "Dikter i Väntan"; and "Marin och Genre" (1890). He was as popular a dramatist as he was poet and novelist, "Affärer," the best of his plays, being very successfully produced at the theater in Helsingfors in 1890.

Tcherniaeff, Michael Gregorovich, a Russian soldier, born in 1828; died in Mohileff, Aug. 17, 1898. He was descended from an ancient noble family, and was educated for the army in the staff college at Nikolaieff. He served through the Crimean War, and afterward on the staff in Poland. In 1858 he was sent to Orenburg and was intrusted with the command of an expedition against the Kirghiz tribes on Lake Aral. He carried on continuous operations against the tribes of Tashkend and Khokand, and in 1864 accomplished a famous march across the steppes to join a Russian force from eastern Siberia, capturing with the combined forces the fortress of Tchekend, held by Khokand tribesmen. After this he attacked Tashkend, and overcoming in the end the resistance of the tribes, extended Russian dominion over all this part of Asia. He was hailed as a conquering hero on his return to St. Petersburg. Retiring from active service in 1874, he became one of the most prominent leaders in the Pan Slavist movement, arousing by his journal, the "Russki," the sympathy of the Russian people for the Bosnian insurgents and the Servians and stirring up the agitation that led to the Russo-Turkish war. After obtaining by private subscription large quantities of arms and supplies for the Servians he entered their country in 1876 at the

head of a volunteer army, and was appointed general-in-chief of the Servian forces, which he organized in four corps. When war was declared on July 3, 1876, he advanced across the Turkish frontier. He received a check at Novi Bazar, and at Ak Palanka he was finally defeated and driven back over the border which he had crossed three weeks before. The campaign was continued in Servian territory with equally disastrous results. In the midst of his defeats Tcherniaeff, on Sept. 15, proclaimed Milan Obrenovich King of Servia, but on Oct. 30 the Turks broke through his last line of defense by the capture of Deligrad, and were able to march on Belgrade. When an armistice was concluded Gen. Tcherniaeff resigned his command. The Pan Slavist committees attributed the reverses to his incapacity, and in the Russo-Turkish war of 1877 he had no command, but notwithstanding their charges he continued to labor for the cause, endeavoring to foment an agitation among the Austrian Slavs, for which he was expelled from Prague. He then took up his residence in Paris, and was implicated in anti-German demonstrations there. In 1879 he went to Roumelia to stir up a Bulgarian insurrection, but was arrested at Adrianople and sent back to Russia. He was then restored to favor, and in 1882 was nominated Governor General of Turkestan and commander of the military district of Tashkend. He instituted an aggressive policy in Asia, almost resulting in a war with Bokhara and causing tension in the relations between Russia and England. Hence he was recalled in 1884, and was appointed a member of the Council of War, but lost his seat two years later through his opposition to Gen. Annenkoff and the Transcasian Railroad. Although disliked and neglected by Alexander III, he remained, next to Skobelev, the popular hero of the Pan Slavists.

Tchouhadjan, Dieran, an Armenian composer, died in Smyrna in April, 1898. Oriental music owes to him a great development and a large number of melodies that became popular even in Europe, where they were freely adapted without recognition of their author. He composed several operas, two of which, "Horhor" and "Zehmire," have been very successful in Eastern cities.

Tennyson, Frederick, an English poet, born in Louth, Lincolnshire, June 5, 1807; died in London, Feb. 26, 1898. He was the second son of the Rev. George Clayton Tennyson, rector of Somersby, Lincolnshire, and was educated at Eton and Trinity College, Cambridge, being graduated in 1832. In 1839 he married in Florence Maria Giuliotti, daughter of the chief magistrate of Siena, and he continued to make Florence his home until 1859, when he removed to St. Ewold's, in the island of Jersey. In 1896 he left St. Ewold's in order to live with his only son, Capt. Julius Tennyson, in whose house he died. His earliest writing consisted of four pieces contributed to the "Poems by Two Brothers," which his younger brothers, Charles and Alfred, published in 1826. His first volume of verse, "Days and Hours," was published in 1854 and attracted but little attention by reason, to some extent no doubt, of the overshadowing reputation of his brother Alfred. The circumstance seems to have kept him from attempting further till 1890, when he put forth "The Isles of Greece," an epic poem. "Daphne" appeared in 1891, and "Poems of the Day and Year," in which a portion of his earlier book, "Days and Hours," was included, was issued in 1895. He possessed lyric gifts of no mean order, as well as admirable technique, while all his work breathes an atmosphere of purity and refined feeling. But his poems have failed to touch the popular taste, and appeal to the few rather than to the many, although it is probable that but for be-

ing cast in the shade by his brother's fame he would have won a more general acceptance among cultivated readers, and would thus have been stimulated to greater effort and fuller achievement.

Topelius, Zachris, a Finnish poet and novelist, born in Kuddnäs, near Nykarleby, Finland, Jan. 14, 1818; died in Helsingfors, March 12, 1898. He was educated at the University of Helsingfors, where he obtained the master's degree in 1840. From 1841 to 1860 he edited the "Helsingfors Tidningar," in which many of his novels and poems made their first appearance. In 1854 he was appointed Professor Extraordinary of Finnish History at the University of Helsingfors, in 1863 Professor of the History of Finland and the Northern Regions, and in 1876 Professor of General History, which latter chair he held until 1878. His most important collections of verse are "Ljungblommor" ("Flowers of the Heath") (1845-'53); "Sånger" (1860); and "Nya Blad" ("New Leaves") (1870). As a poet he is at his best in his patriotic and religious lyrics. The best known of his dramatic works are "Titians första kärlek" ("Titian's First Love"); "Efter femtio år" ("After Fifty Years") (1851); "Regina von Emmertz" (1854); and "Princessan of Cypern" (1861). His "Fälskärus Berättelser" ("A Surgeon's Stories") (1853-'67) is a series of romantic sketches of the history of Finland and Sweden from the time of Gustavus Adolphus to that of Gustavus III, which has been very popular, and his "Läsning för Barn" ("Stories for Children") (1864-'84) has been many times translated.

Uppington, Sir Thomas, a South-African statesman, born in the County Cork, Ireland, in 1844; died in Cape Town, Dec. 10, 1898. He was the son of a Roman Catholic country gentleman, and was admitted to the Irish bar in 1867, becoming soon afterward secretary to Lord O'Hagan, Lord Chancellor of Ireland. After he relinquished this office in 1874 he settled in Cape Colony, where he was elected a member of the Legislature in 1878, and was at once made Attorney General in Sir Bartle Fere's Administration. In 1881 he resigned that office and was elected leader of the Opposition in the Cape Parliament. When the Government was changed in 1884 he became Prime Minister. He held this office two years, and then resigned it to become Attorney General again, keeping that post till 1890. After taking a judgeship in 1892, he once more became Attorney General in 1896. He was knighted in 1887 while in England as a delegate to the Colonial Conference.

Vautier, Benjamin, a Swiss painter, born in Morges, Vaud, April 24, 1829; died in Düsseldorf, Germany, April 25, 1898. He studied art in Geneva, Düsseldorf, and Paris, and settled in Düsseldorf, becoming one of the ablest representatives of the methods developed there and a master of the story-telling style. His compositions were mostly drawn from peasant life in Switzerland, Alsace, and the Black Forest, portrayed with fidelity and humor and with finished execution, lacking somewhat in color. In the universal exposition of 1867 he obtained a medal, and in that of 1878 a first medal and the cross of the Legion of Honor. He illustrated Immermann's "Oberhoff," Auerbach's "Barfüsse," and Göthe's "Hermann und Dorothea."

Villiers, Charles Pelham, an English statesman, born on Jan. 3, 1802; died in London, Jan. 16, 1898. He was a brother of the Earl of Clarendon. After studying at Haileybury College for the Indian civil service, he concluded that he lacked the physical vigor for a life in India, and entered St. John's College, Cambridge, where he took his bachelor's degree in 1824. He then inscribed himself a student of Lincoln's Inn, and, having had for his masters and friends the most advanced social econo-

mists of the time, he announced himself a candidate for Parliament at Kingston-upon-Hull in 1826 with the cry of cheap bread. He was defeated then, and, after being called to the bar in 1827, he filled an office in the Court of Rolls and one under the poor law when the new Administration was organized in 1832. He was elected to Parliament as a Free Trade Liberal in one of the divisions of Wolverhampton in 1834, and represented the same constituency for sixty-three years. While Cobden and his Anti-Corn-Law Association were carrying on the agitation for the abolition of the corn laws, Mr. Villiers at the head of the 38 Free Traders in Parliament pressed in 1838 for a parliamentary inquiry and led the debates in favor of immediate repeal with terse and vigorous eloquence. He first moved the repeal of the corn laws in 1840, and continued to raise the question year after year until the repeal act was passed in 1846 and the last vestiges of the protectionist system were swept away in 1849. Richard Cobden, who entered Parliament in 1843, John Bright, and others active in the Anti-Corn-Law League took precedence of the pioneer of the cause in Parliament, but always acknowledged the magnitude of his services. He was transferred in 1852 from the office of examiner of witnesses in the Court of Chancery, which he had held for nearly twenty years, to that of judge advocate general. He brought forward in Parliament the question of postal reform. In 1853 he was elected chairman of the Committee on Public Houses and opposed the principle of vested rights in licenses. From 1859 till 1866 he was president of the Poor Law Board, and in 1865 carried through Parliament a bill making unions chargeable for all the poor within their districts and prohibiting parishes from driving out paupers who came originally from other places in the same union. In 1866 he separated himself from the Gladstonians and was returned as a Liberal Unionist. He declined a peerage in 1885, preferring to remain the "Father of the House of Commons." His "Free Trade Speeches" were published in 1884.

Walpole, Spencer, an English statesman, born in September, 1806; died in London, May 22, 1898. He was educated at Eton and Trinity College, Cambridge, was called to the bar in 1831, and obtained a successful Chancery practice, becoming a Queen's counsel in 1846. In the same year he was elected to Parliament from Midhurst as a Conservative, and made himself conspicuous as an opponent of the emancipation of the Roman Catholics and the Jews and as an advocate of religious education. He was appointed Home Secretary by Lord Derby in 1852. From 1856 till 1882 he represented Cambridge University in Parliament. He accepted the Home Office from Lord Derby again in 1858, but retired after a few months when the Cabinet decided to extend the county franchise. He was appointed Home Secretary in Lord Derby's third Administration, and was obliged to resign when the alternate bluster and weakness that he had shown in dealing with the Reform League in 1867 had resulted in the Hyde Park riot. He retained a seat in the Cabinet till the session of 1868, and from that time till he lost his seat in Parliament he scarcely ever raised his voice in the House.

White, Gleeson, an English *littérateur*, born in Christ Church, Hampshire, England, March 5, 1851; died in London, Oct. 19, 1898. He was widely known as one of the later school of art critics and exercised not a little influence for good upon his generation in matters of decoration and allied themes. For several years he was art editor for the London publishing house of George Bell & Son, and he was editor of the "Ex Libris Series" of books; of "Bell's Cathedral Series" (with E. F. Strange), and of

one or two other series as well. He was the first editor of "The Studio" (1893-'94), and was associate editor of "The Art Amateur" during his residence in New York city in 1891-'92. Among the various books edited by him are "Ballades and Rondeaux" (1887); "Garde Joyeuse," a collection of American verse (1890); and "Practical Designing" (1893). His original work comprises "Letters to Living Artists," "Letters by Eminent Hands," both of which appeared anonymously, the latter being a clever imitation of the styles of several contemporary novelists; "Salisbury Cathedral" (1896); "English Illustration in the Sixties" (1897); and "Master Painters of Great Britain," his most important work (1897-'98). Mr. White was very popular among London literary workers, none of whom possessed a more generous and kindly nature than he, and all his various undertakings were well and conscientiously performed. During his brief residence in New York he made many warm friends.

Willems, Pierre, a Belgian historian, died at Louvain in March, 1898. He entered the University of Louvain in 1865, lectured on Roman antiquities, on Latin literature and paleography, and on philology, and published, besides numerous *brochures* and articles in French and Flemish, a book in 1870 treating of Roman antiquities from the point of view of political institutions, one in 1889 on Roman law before the period of Justinian, and in 1885 a learned history of the Roman Senate.

Winchelsea, Finch-Hatton, Earl of, an English politician, born in Kent in 1851; died near Sleaford, Sept. 7, 1898. He was educated at Eton and Balliol College, Oxford, took honors in modern history, and was elected a fellow of Hertford College. He tried to manage the family estate of Eastwell Park until the agricultural depression compelled him to part with it. After an unsuccessful candidacy in 1880 at Newark, he was elected to Parliament in 1884 as representative of an agricultural constituency of Lincolnshire, and sat in the House of Commons until after a long legal contest he established his right to a peerage in 1887 as successor to his half-brother, the eleventh earl. The interest that he had shown in agricultural affairs led him to organize in 1894 the National Agricultural Union, representing landlords, tenants, and laborers, which put forth a programme including the reduction of local taxation, the abolition of preferential railroad rates which operated in favor of foreign against British producers, the amendment of the adulteration act and of the agricultural holdings act, old age pensions for working men, and increased facilities for enabling working men to obtain small holdings. A majority of the members of Parliament, belonging to both parties, approved the aims of the association, most of whose demands have been conceded. The railroad companies were induced to revise their rates for carrying freight, to the advantage of the farmers, after Lord Winchelsea had organized a co-operative company for the direct sale of agricultural produce to the consumers in London and other large cities.

Xiqueña, José Alvarez de Toledo y Acuña, Conde de, a Spanish statesman, died in Madrid in August, 1898. After the restoration of the Spanish monarchy with Alfonso XII, he returned from Naples, where the Duke of Bivona, his father, had taken up his residence, and entered political life, becoming Deputy for Logroño, minister at Brussels, Senator from the Canaries, civil governor of Madrid, and twice Minister of Fomento. He was at first an adherent of Canovas, but parted from the Conservatives and became one of the leaders of the Liberal party of Sagasta. As an eloquent speaker and a clever man of action, he always enjoyed great popularity.

OHIO, a Central Western State, admitted to the Union in 1803; population, according to the last census (1890), 3,666,719, it being the fourth in rank of the States; area, according to the United States Geological Survey, 41,060 square miles, of which 40,760 is land surface and 300 water surface. Capital, Columbus.

Government.—The State officers during 1898 were: Governor, Asa S. Bushnell; Lieutenant Governor, Asahel W. Jones; Secretary of State, Charles Kinney; Auditor of State, Walter D. Guilbert; Treasurer of State, Samuel B. Campbell; Attorney-General, Frank S. Monnett; Judges of the Supreme Court, William T. Spear, Marshall J. Williams, Joseph P. Bradbury, John A. Shauck, Thad. A. Minshall, Jacob F. Burket; Clerk of the Supreme Court, Josiah B. Allen; Commissioner of Common Schools, Oscar T. Corson until July 11, after that date Lewis D. Borebrake; Dairy and Food Commissioner, Joseph E. Blackburn; Board of Public Works, Charles E. Grace until February 8, Edwin Lybarger, Frank A. Huffman, Charles A. Goddard from Feb. 8. All these officials were Republicans.

Finances.—The receipts for the fiscal year 1898, including balances from previous year, were: General revenue fund, \$5,624,746.87; sinking fund, \$690,365.57; common school fund, \$1,851,168.48; university fund, \$321,546.01; total, \$8,487,826.93. The total disbursements were \$7,658,852.98, leaving balance on hand, \$828,973.95.

The public funded debt of the State, Nov. 15, 1897, was \$1,291,665; at the close of the fiscal year 1898 the public funded debt was \$1,241,665, at 3 per cent. interest.

Valuation.—The property values returned for taxation by the assessors were: Lands, \$592,274.745; real estate in cities and villages, \$652,542,728; personal property, \$515,439,970; total, \$1,760,257,443.

Railroads.—State-Railway-Commissioner Kayler reports the railroads of the State at the close of the official year 1898 as in a much better condition, both physically and financially, than they were at the close of the preceding year. Five new State corporations were incorporated during the year. The mileage of all tracks representing capital stock was increased 167.96 miles, or 1.27 per cent. of an increase. An increased amount of \$258,437.53 was paid in dividends for the entire lines and an increased amount of \$71,951.08 in Ohio. An increased amount of \$1,605,979.70 was expended on road and equipment in Ohio over the preceding year; the average cost per mile of road shows a decrease of \$12,966.25 per mile. The total earnings of the entire lines shows an increase of \$19,402,929.98, or a gain of 11.226 per cent. over the preceding year. The increase in earnings in Ohio during the year was \$7,834,337.64, or a gain of 12.693 per cent. The fatal accidents to passengers were 5 as against 13 last year, 49 travelers on the highways were killed, which is 3 more than for the last year. Total number of employees killed in the State during the year was 135, against 96 last year, an increase of 39. The total number of trespassers killed was 256, against 239 last year, an increase of 17. Total number killed during the year, 445, against 394, an increase of 51. The total number of people injured during the year ending June 30, 1898, was 5,728, against 3,429 last year, an increase of 2,299. Nearly 19 per cent. of all the street and highway crossings are now protected. Taking the rolling stock, operated as a whole, within the State, 98 per cent. of the passenger locomotives are equipped with air brakes and 85 per cent. with automatic couplers; 90 per cent. of the freight and switching engines are equipped with air brakes and 82 per cent. with automatic couplers; 99 per cent. of the passenger

cars are equipped with air brakes and 98 per cent. with automatic couplers; 84 per cent. of the freight cars are equipped with air brakes and 65 per cent. with automatic couplers. The dividends paid from net income was \$337,608.44 greater than for the previous year, or a gain of 5.88 per cent. The net income for the year shows a net increase of 6.69 per cent.; the deficits were 4.84 per cent., showing a net increase of 1.85 per cent. over deficits.

Coal Mining.—The annual report of Chief-Mine-Inspector Haseltine, filed in September, shows that there were 1,228 mines in the State, 418 of which employed more than 10 men; 1,126 mines were in operation during the year, 37 of which are regarded as large mines. The number of active mines returned is 30 in excess of the number reported during any year of which the department has a record. The average time worked is given at one hundred and fifty and one half days, the same as during the year 1896. The number of miners employed amounted to 22,131, a loss of 14 when compared with the past year. There were 6,654 day hands, a gain of 353 as compared with 1896. The year's production of coal is given at 12,448,822 tons, a decrease of 463,786 tons as compared with the previous year. Of this total amount 4,106,124 tons were mined by machinery, which is an increase of 737,775 tons over the preceding year. Machine mining had extended to 12 counties, against 7 two years before. At the close of the year there were 166 electric machines and 67 which used compressed air distributed throughout the mines of the State. Deducting from the total output of the State the amount of machine-mined coal, it is found that 8,342,698 tons were produced by pick mining, a decrease of 1,201,561 tons compared with the former year. This makes an average yearly production to each miner of 45 tons, 1,537 pounds of run of the mine coal. During the year 89 new mines were opened, 103 remained suspended, and 97 were either exhausted or abandoned.

Military.—Nine regiments and one battalion of infantry, eight troops of cavalry, and one battalion of artillery comprised the Ohio volunteers in the war with Spain. The total number of Ohio volunteers, including those enlisted in United States volunteer regiments, was 15,300.

Supreme Court Decisions.—The Supreme Court sustained the constitutionality of the law for the purity of elections, known as the Garfield corrupt practices act.

It also sustained the constitutionality of the Pugh election law, which requires that a party must have cast at the polls at the next preceding election at least 1 per cent. of the total vote before it can formally nominate a ticket, and the signers of nominating petitions under the law must pledge themselves to vote the ticket for which they ask a place on the ballot.

Legislative Session.—The seventy-third General Assembly organized Jan. 3, and adjourned *sine die* April 26. The proceedings of the first few days of the session were attended with considerable excitement, owing to the peculiar action in the organization and the contest in the election of United States Senator.

At the formation of President McKinley's Cabinet, in 1897, the Hon. John Sherman resigned his seat in the Senate to become United States Secretary of State, and Gov. Bushnell appointed Marcus A. Hanna to the vacant seat in the Senate until the Legislature met in January, 1898. The senatorial question entered largely into the election of the Legislature in November, 1897, there being an election of Senator for the unexpired term ending March 3, 1899, and also for the full term of six years, beginning March 4, 1899.

In the Senate as elected there were 18 Democrats, 17 Republicans, and 1 Independent Republican. In the House there were 62 Republicans and 47 Democrats. On joint ballot the parties stood 79 Republicans, 1 Independent Republican, and 65 Democrats.

Several Republicans opposed to the election of Mr. Hanna to the United States Senate formed a combination with the Democrats for the organization of both branches of the Legislature and the defeat of Mr. Hanna. The combination was engineered by Charles L. Kurtz, who led the anti-Hanna Republican forces in the State election. At the organization of the Senate an anti-Hanna Republican kept away from Columbus. The Independent Republican voted with the Republicans. With but 35 Senators present, the Democrats had a majority of 1, and elected Thaddeus E. Cromley, Democrat, president *pro tem.*, the Republicans voting for J. Park Alexander. In the House 9 anti-Hanna Republicans, who had refused to go into the Republican caucus, joined the Democrats in voting for Harry C. Mason, anti-Hanna Republican, for Speaker, the vote for Mason being 56 against 53 for Alexander Boxwell, the Republican caucus candidate. The other offices in the Senate and the House were divided between the friends of the combine.

The combined vote of the two Houses indicated a Hanna shortage of at least 3 votes. In the intervening time before the voting for Senator the excitement ran high. The Democrats and anti-Hanna Republicans at the last moment agreed to vote for Robert E. McKisson, Mayor of Cleveland, anti-Hanna Republican. In the Senate McKisson's vote was 19, being the full Democratic vote with 1 Republican, while Hanna had 17, including the Independent Republican. In the House 43 Democrats and 6 Republicans voted for McKisson, 56 Republicans for Hanna, 3 Democrats scattered their votes, and 1 Democrat was absent, sick. In joint Assembly, next day, Hanna received 73 votes, the exact number required to elect, McKisson 70, and 1 Democrat was absent. The vote for the full term followed with the same result.

A charge of bribery was immediately made against the Hanna party, and the Senate adopted a resolution to investigate. The House also adopted a resolution to investigate, the Republicans mostly refusing to vote. In March the House took up another charge of bribery in connection with a two-cent-fare fare bill, and appointed a committee to investigate. Both investigations were carried on for some time, but without specific result, beyond forwarding to the United States Senate a record of the proceedings of the investigating committee in the senatorial election case.

A large number of bills became laws. Among the more important of those of a general nature were the following:

Repealing the act of the last preceding Legislature permitting city councils to grant street railway franchises for a term of fifty years.

Repealing the law for the registration of land titles, passed in 1896 (Torrens system), which the Supreme Court in 1897 decided unconstitutional.

Providing penalties for cruelty to animals in transportation.

Compelling railroads to carry bicycles with passengers as baggage.

Providing for more thorough inspection of shops and factories.

Making it unlawful to screen coal at the mines before weighing.

For the regulation of exits from theaters, public halls, etc.

Guarding the health of female employees in shops and factories.

Regulating nominations to office by examination petitions (known as the Pugh law).

Amending the game laws.

Providing penalties for abandonment of destitute, infirm, or aged parents.

Providing penalties for the unlawful employment of minors.

Compelling proper drainage, plumbing, and ventilation of bakeries.

Amending the act of 1890 for the suppression of mobs and lynching, and making the county in which the offense is committed pecuniarily liable to the victim or to his legal representative.

Amending the laws regulating marriages so as to require that every person applying for a marriage license shall state upon oath the name, age, residence, place of birth, occupation, father's name, if known, and the mother's maiden name, of each of the parties to such contemplated marriage, and shall also state the number of times either party has been previously married, and in case the bride is a widow, or a divorced woman, her married name shall also be stated, and in addition the name of the person who is expected to solemnize the marriage shall be stated.

Political.—The Prohibition State Convention was held at Columbus, May 18. A proposition to unite with the other minor parties that had placed independent tickets in the field in 1897 was rejected, and the decision was made to maintain their organization as heretofore. A full ticket was nominated, as follows: For Secretary of State, Thomas Brown; Judge of Supreme Court, M. Rouch; Clerk of Supreme Court, J. D. Swan; Dairy and Food Commissioner, W. M. Hills; Member of Board of Public Works, Robert Candy. The following platform was adopted.

"Resolved, that the manufacture, sale, importation, exportation, and interstate transportation of all alcoholic liquors for beverage purposes shall be forever suppressed, to which we as a political party pledge ourselves when in power.

"That no citizen should be denied the right of full suffrage on account of sex.

"That all men are entitled to one day of rest in seven."

An additional resolution was unanimously and enthusiastically adopted, as follows:

"That while we hold that the policy of arbitration ought in general to prevail in cases of dispute between nations; yet, we hereby express to the President of the United States and the authorities of the nation at Washington our loyal sympathy and support in the humanitarian war that is now being waged by our country in behalf of the oppressed people of Cuba, and of the cause of popular freedom."

Representatives of the Silver Republican, Negro Protective, Liberty, and Populist parties met at Columbus, May 25, and organized the Union Reform party, placing in nomination a State ticket made up from those parties. Some of the persons nominated declined, and their places were filled by others. As finally agreed upon the ticket was as follows: For Secretary of State, James A. Graft; Member of Board of Public Works, John A. Sheffield; Judge of Supreme Court, Arthur A. Brown; Clerk of Supreme Court, Martin Krumm; Dairy and Food Commissioner, Seth H. Ellis. The platform, after a long preamble, declared:

1. For direct legislation under the system known as the initiative and referendum. Under the "initiative," the people can require that any desired law shall be submitted to them for a vote, when, if it receives a majority of the votes cast, it will be thereby enacted. Under the "referendum," the people can require that any law which has been

adopted by a legislature shall, before becoming operative, be submitted to a vote of the people for their approval or rejection, when, if such law fail to secure a majority of the votes cast, it will be thereby rejected.

2. For the honest and effective enforcement of all laws, so that the will of the people, as expressed in the statutes, shall not be nullified by indifference or opposition on the part of public servants.

3. For the honest and economical administration of the Government, to the end that the people be not burdened with unnecessary taxes.

The Socialist-Labor Convention was held in Columbus, May 30, and the following ticket was nominated: For Secretary of State, John Flynn; Judge of the Supreme Court, Dan W. Wallace; Clerk of Supreme Court, Fred Pandorf; Dairy and Food Commissioner, E. Applegarth; Member of Board of Public Works, Thomas F. Smith. The platform presented a long preamble and a set of resolutions embodying these declarations:

"National ownership of mines, railroads, canals, telegraph, telephones, etc.; the employees to operate the same co-operatively and to elect their own superior officers.

"Municipal ownership of local railroads, ferries, waterworks and all industries requiring municipal franchises.

"Public lands to be declared inalienable.

"The United States to have exclusive right to issue money.

"Progressive income tax and tax on inheritances; small incomes to be exempt.

"Free education. Public assistance when necessary.

"Abolition of convict labor laws.

"Employment of unemployed by public authorities.

"Laws for protection of life and limb in all occupations.

"The right of the people to oppose laws and to vote upon all measures of importance.

"Abolition of executive veto power.

"Abolition of United States Senate and all upper legislative chambers.

"Municipal self-government.

"Direct vote and secret ballot in all elections. Universal suffrage.

"All public officers to be subject to recall by their constituencies.

"Uniform criminal and civil laws. Abolition of capital punishment."

The Republican State Convention was held at Columbus, June 22, and the following ticket was nominated: For Secretary of State, Charles Kinney; Supreme Court Judge, William T. Spear; Clerk of Supreme Court, Josiah B. Allen; Dairy and Food Commissioner, Joseph E. Blackburn; Member of Board of Public Works, W. G. Johnson. All but the last named were renominations. The significant parts of the platform were the following:

"We reaffirm the declaration of fact and principles adopted by the eleventh National Republican Convention at St. Louis, June 17, 1896.

"We congratulate the country upon the fact that in response to the demand of the St. Louis platform and the will of the people expressed at the polls in November, 1896, protection and reciprocity, twin measures of Republican policy, have been re-established, and have been embodied into public law by the enactment of the Dingley bill.

"We favor all measures which will promote the restoration and growth of our merchant marine.

"Increasing trade with our neighboring republics on the west coast of South America and our recent victory in the Philippine Islands, with all the responsibilities attached thereto, remind us that it is

essential to our prosperity and safety that our Atlantic and Pacific borders be joined by the nearest practicable water way; we therefore favor the construction by the United States of the Nicaraguan Canal to the end that our commerce may be extended in time of peace and our coasts protected in time of war.

"We ask the Congress of the United States to enlarge and make more effective our navy, so that our country may take and occupy her proper place among the nations of the earth. It must be adequate at all times for defense against foreign foes, to secure the just rights of American capital, enterprise, and commerce in all parts of the world, and to command respect for our flag everywhere.

"We most heartily approve of the steps now being taken by Congress and the President, providing for the annexation of the Hawaiian Islands as a part of the United States, and hereby express the urgent wish that the same be fully accomplished at the earliest practicable date by the passage by the Senate of the joint resolution which has already met with the approval of the House of Representatives.

"Knowing that justice and humanity alike made it our duty to put an end to the hopeless and barbarous warfare waged by Spain against Cuba, and secure for that unhappy island a free and stable Government, we most heartily approve of the declaration of war made by the United States against Spain and pledge our lives and fortunes for the purpose of bringing it to a quick and successful termination.

"We indorse and approve the patriotic American Administration of William McKinley. We commend the great statesmanship displayed by him in his tireless endeavors to secure an honorable settlement of the Cuban question by diplomatic methods, and his fearless refusal to be driven into war until all hopes of a peaceful settlement had failed, and wise and needful steps had been taken to prepare for hostilities. We heartily indorse the conduct of the war by the Administration, and feel confident that time will continue more and more to demonstrate the great wisdom and matchless leadership of President McKinley, so far remarkably displayed in his management of the war and its conduct, and we rejoice with him that in the present crisis the American people are united in sustaining him, and that patriotism has completely obliterated the last vestige of sectional feeling.

"Since the war with Spain could not be avoided, we approve all that Congress has done to provide for the vigorous and successful prosecution thereof, and gratefully thank all members of that body who have patriotically voted the revenues necessary for its conduct. We also commend the action of Congress in providing for raising necessary funds to carry on the war by popular loan, thus affording an opportunity to citizens of moderate means to invest in the bonds of the Government.

"We commend the wise administration of the executive affairs of the State by the heads of the various departments placed in authority by the Republican party."

The Democratic State Convention was held at Dayton, Aug. 24, and the following ticket nominated: For Secretary of State, Upton K. Guthery; Judge of Supreme Court, Hugh L. Nichols; Clerk of Supreme Court, David S. Fisher; Food and Dairy Commissioner, John Baker; Member of the Board of Public Works, T. D. Paul. The following is the significant portion of the platform:

"1. The Democracy of Ohio, in convention assembled, reaffirm the platform of principles adopted at Chicago by the Democrats at their convention in July, 1896. And we particularly reaffirm and indorse the financial plank therein, declaring for

the free and unlimited coinage of silver and gold at the ratio of 16 to 1 independent of any and all other nations.

"2. We are proud of the patriotic conduct in peace and war of that brave leader of Democracy, William J. Bryan, and we favor his renomination as the Democratic candidate of the people for President of the United States in 1900.

"3. The Democratic, Populist, and Silver Republican Senators and Representatives in Congress deserve the thanks of the country for their vigorous and united efforts to secure a just distribution of the burdens of the war taxation equally upon the wealth and corporations of the country as well as upon its labor.

"4. We are in favor of an income tax so that the burden of taxation be equally and impartially laid to the end that wealth may bear its due proportion of the expenses of the Government; and in view of the recent decision of the Supreme Court of the United States declaring an income tax law passed by Congress unconstitutional, we are in favor of an amendment to the Constitution making a reasonable and just tax constitutional.

"5. We recognize the eternal truth that life, liberty, and the pursuit of happiness is the natural and inalienable heritage of all mankind, and since the hand of despotism has been lifted from the island of Cuba, dominated by Spain, we should afford its inhabitants an untrammelled opportunity to establish a free and independent constitutional government deriving its powers from the consent of the governed; and we remind the country that Congress in the resolutions which declared war resolved 'that the United States hereby disclaims any disposition or intention to exercise sovereignty, jurisdiction, or control over said island, except for the pacification thereof, and asserts its determination when that is accomplished to leave the government and control of the island to its people,' and we believe that until the people of the islands of Cuba and the Philippines, redeemed from Spanish domination, declare otherwise, we should keep the faith upon which the war was begun and prosecuted.

"6. We are in favor of the United States building, owning, and controlling the Nicaragua Canal.

"7. As citizens of Ohio we point with shame to Marcus A. Hanna occupying a seat in the United States Senate as a Senator from Ohio, when he has been accused by the Senate of his own State in a memorial to the Senate of the United States of the base crime of securing the office by bold and shameless bribery; and we demand that the Senator from Ohio whose right to his seat is not questioned, Joseph B. Foraker, obey the will of the people of Ohio and protect the dignity of the United States Senate by insisting on a prompt, thorough, and fearless investigation of these criminal charges; and we denounce the shameful conduct of the Republican congressmen who abandoned their duties in Washington to come to Ohio as petty bosses and subservient tools of Marcus A. Hanna, to threaten, browbeat, and intimidate members of the Ohio Legislature into voting for Marcus A. Hanna for United States Senator.

"8. As this is a Government of the people, by the people, and for the people, we favor a reference of all laws to the people themselves, so far as practicable, under the mode first devised and successfully practiced by the enlightened Republic of Switzerland, known as the initiative and referendum."

The election was held Nov. 8 and resulted in the success of the entire Republican ticket. The votes on Secretary of State were as follows: Charles Kinney (Republican), 408,213; Upton K. Guthery (Democrat), 347,074; Thomas Brown (Prohibition), 7,689; James A. Graft (Union Reform), 10,911; James B.

Flynn (Socialist-Labor), 5,874. Kinney's plurality, 61,139. The pluralities for the other Republican candidates were as follows: Judge of Supreme Court, William T. Spear, 63,026; Clerk of Supreme Court, Josiah B. Allen, 61,441; Dairy and Food Commissioner, Joseph E. Blackburn, 26,411; Member of the Board of Public Works, Washington G. Johnson, 61,866.

Elections for Representatives in Congress resulted in the election of 15 Republicans and 6 Democrats.

OKLAHOMA, a Territory of the United States, organized in 1890; area, about 40,000 square miles. The population by the census of 1890 was 61,834; by the Auditor's census of 1894 it was 212,635; the Governor's report gave it as 275,587 in 1896, and 311,400 in 1898. The number of Indians is 13,033.

Government.—The following were the Territorial officers in 1898: Governor, Cassius M. Barnes,

Republican; Secretary of the Territory and *ex officio* Lieutenant Governor, W. M. Jenkins; Attorney-General, Harper S. Cunningham; Treasurer, Frank M. Thompson; Superintendent of Public Instruction and *ex officio* Auditor, S. N. Hopkins; Secretary School Land Department and *ex officio* School Land Commissioner, Charles H. Filson; Oil Inspector, Amos A. Ewing; Bank Examiner, John M. Pugh; Librarian, George H. Dodson; Adjutant General, Philip C. Rosenbaum, resigned and succeeded by Bert C. Orner, acting; Superintendent of Public Health, L. H. Buxton; Chief Justice of the Supreme Court, J. H. Burford; Associate Justices, J. C. Tarsney, B. F. Burwell, B. T. Hainer, and John L. McAtee; Clerk, B. F. Hegler.

Finances.—The expenses of the Territorial government have been greater every year than the revenue; the warrant indebtedness of the general fund now amounts to \$253,752.74. The deficits in the Library, Normal School, and Deaf-Mute School funds and interest bring the amount to about \$348,501; there is also due contractors for building the Northwestern Normal School at Alva \$85,000, making a total Territorial indebtedness of \$435,501. The bonded debt, 6-per-cent. school bonds, is \$48,000, which is included in the above amount.

The property valuation of the Territory is \$38,213,784, as equalized by the Territorial board, exclusive of railroad property, which is valued at \$2,677,163. This is an increase in a year of over \$8,000,000.

The tax rate is 4 $\frac{1}{2}$ mills for all Territorial purposes, of which 3 mills is for the general fund.

Education.—The school population is 101,417. In 1897 an apportionment of \$118,177.55 was distributed to the counties, and in 1898 one of \$108,052. There are 1,879 districts, and the value of school property is \$457,575.

The School Land Board has control of about 10,800 quarter sections, of which about 8,500 are leased. The records show names of about 6,000 lessees; the office has 11,086 notes for deferred payments. The cash receipts of the office for the fiscal year were \$186,789.49.



CASSIUS M. BARNES,
GOVERNOR OF OKLAHOMA.

The percentage of illiterates in the entire population is 5.4; in the white population, 3.5.

There were 203 students in the university at the close of 1898. The library contains more than 5,000 bound and 2,000 unbound books. More than 40,000 trees have been planted on the campus, and more are to be added soon. The expenses for the two years ending June 30, 1898, were \$27,305.84.

At the Agricultural and Mechanical College, at Stillwater, 150 students were enrolled during the fall term, of whom 70 were in the regular course and the others in special or preparatory courses. Short courses are to be given during the winter for instruction in agriculture, including live stock, dairying, veterinary science, and horticulture, mechanical engineering, and review of common-school studies. A new building for the department of mechanic arts has been added at a cost of about \$3,500. More than 400 shade trees have been added to those on the campus.

The Normal School at Edmond had an enrollment of 251 names in 1897-'98; the average attendance during the fall term was about 160. The attendance at the Northwestern Normal School at Alva also is large. A new building has been nearly completed at a cost of \$85,000.

The Langston Agricultural and Normal University, authorized by an act of 1897, is in successful operation. This is for colored youth and is in a town inhabited exclusively by negroes. It receives a part of the Federal appropriation for agricultural colleges.

There are several Indian schools in the Territory, the largest of which is the Chilocco school in Kay County, with more than 500 pupils. The Osage tribe have a well-equipped building at Pawhuska, and the Cheyennes and Arapahoes one at Darlington; and there are also large Indian schools at White Eagle, Sac and Fox, Shawneetown, Seger, Anadarko, Rainy Mountain, and other places.

Charities and Corrections.—The total number in the asylum for the insane the past two years was 401, of whom 120 were discharged, 56 died, and 5 escaped, leaving 220 at the close of 1898. Contract was made with the Oklahoma Sanitarium Company to care for the patients at \$200 a year each, beginning June 15, 1898. The contract calls for good sanitary conditions and medical care, and everything necessary for the well-being of the patients; and the Superintendent of Public Health is required to visit the institution at least twice a year, and oftener if the Governor directs, to see that the provisions of the contract are carried out.

The Deaf-Mute School has 25 inmates, and 36 others are registered to enter when accommodations are provided. It is estimated that there are nearly 100 in the Territory, and about 75 blind persons. A school for the blind has been established recently.

There were 126 Oklahoma prisoners in the Kansas Penitentiary, Jan. 1, 1897. Up to Dec. 22, 1898, 187 more had been received; 97 had been discharged by expiration of sentence, 60 by pardon, 8 were remanded for new trials, 1 was killed while trying to escape, 3 others died, and 3 escaped, leaving 141 present at the close of 1898. The expense of care of the prisoners for the two years ending June 30 was \$27,748 and of transportation \$6,976.53. The charge has been raised from 25 to 35 cents a day. Each prisoner receives a \$15 suit of clothes and \$5 in cash when he is discharged.

The Governor was authorized to contract with suitable institutions for the care of youthful offenders; but the regulations of most of the neighboring States forbid such contracts, so that none has yet been made, and many quite young boys have been sent to the Penitentiary and the jails.

Banks.—There are 6 national and 49 Territorial banks, with an aggregate paid-up capital of \$789,986.69. During the fiscal year 6 new Territorial banks have been started, 2 were consolidated, and 1 failed. One national bank went into voluntary liquidation and 2 new ones were established.

A statement in regard to the Guthrie banks shows \$374,816 on deposit in the Guthrie National, \$100,000 more than ever before. In the other Guthrie banks are deposits amounting to about \$225,000. The average loans and discounts are but one third of the capital and deposits.

Loan Associations.—There are 4 of these, paying dividends averaging 12 to 18 per cent.

Insurance.—The life insurance in force, Jan. 1, 1898, amounted to \$2,212,142, the losses paid in 1897 to \$8,363.40.

The fire insurance written in 1897 amounted to \$5,567,211 and the losses paid to \$28,656.

Other companies—casualty, etc.—wrote \$449,231 and paid \$261.

Railroads.—Several roads have extended their lines in the Territory this year, and surveys have been made for others. The Hutchinson and Southern had trains running March 1 on an extension of 26 miles. The Choctaw began running to Geary on an extension of their line July 1. The St. Louis and Oklahoma have built to Oklahoma City 103 miles, and will extend farther to the southwest. The Atchison, Topeka and Santa Fé laid 62 miles of heavy steel and ballasted 40 miles of track in the Territory with cracked rock; placed a large number of ties, replaced several wooden bridges with steel ones, making a total of 740 feet of steel bridges put in; rebuilt half a dozen old bridges, and are building many brick and stone arches. They have also completed a new depot at Seward; new depot, reading room, bathrooms, and eating house at Purcell; and a new eating house and reading room at Woodward; have put in 4 additional 2,000-foot passing tracks and 8,500 feet of side track to accommodate new elevators, grain bins, coal bins, lumber yards, and other local industries at different points between Arkansas City and Purcell.

Military.—In response to the first call for troops for the war, Oklahoma sent a company of cavalry composed of expert marksmen, accustomed to the care and management of horses. They became a part of the Rough Riders and participated in the fighting at San Juan hill, where one was killed and several were wounded.

Under the second call the Territory furnished a battalion of four companies of infantry, which was made a part of the first regiment of Territorial volunteer infantry, and has been assigned to take second division of the First Army Corps. At the close of the year these companies were in camp at Albany, Ga.

The militia of the Territory was somewhat disorganized early in the year, and so many of the men entered service for the war that a reorganization has not yet been effected.

Exposition Exhibit.—Though the Legislature made no provision for a territorial exhibit at the Trans-Mississippi Exposition, funds were advanced by counties, corporations, and individuals, and about \$7,000 was expended.

Mob Law.—Two Seminole Indians charged with assault and murder were burned at the stake, in January, by a mob. Their victim was a farmer's wife, and the crime was most atrocious. The Indians lived in Indian Territory and were brought back to Oklahoma and burned near the scene of their crime. The Governor offered a reward of \$1,000 for the arrest and conviction of members of the mob. A dispatch of May 30 said: "The United

States marshal has under arrest a young Seminole Indian named Hargo, who confessed to being the murderer of Mrs. Laird, for whose death young Sampson and McGeisy were burned to death by a white mob near Newark, I. T., last January. The Government has maintained that the two Indians burned to death were innocent, and will now prove it. Hargo was captured in the Chickasaw nation after an exciting chase of twenty-two days. Nearly 200 men are under indictment for participating in the burning of Sampson and McGeisy." Five men are now under arrest, charged with complicity in the crime.

Political.—Conventions for nominating candidates for the office of Delegate to Congress were called by the Democratic, Silver Republican, and Populist parties, to meet at Oklahoma City, July 13. The resolutions adopted by the Populists called for union of the free-silver forces, the initiative and referendum, the imperative mandate, and Statehood for the Territory; approved the war, denounced the bond issue, and said further:

"*Resolved*, That we extend to the Guthrie Typographical Union and all other labor unions our hearty sympathy in their contest with organized and avaricious capital.

"That we condemn the action of Dennis Flynn, Gov. Barnes, and other Republican leaders of Oklahoma, for deserting the claimholders in their efforts to secure free homes, simply because the people would not elect a Republican to Congress; and we commend the people of Oklahoma for refusing to stultify their manhood by yielding their political views to secure the support of the Republicans to the free-homes bill.

"That we appreciate and commend the Hon. J. Y. Callahan for his honest and untiring efforts in the interest of free homes, and although they failed in the attainment of their object, they are none the less worthy; and we demand that the nominee of this convention shall put forth every effort to obtain the passage of a free-homes bill."

A committee appointed to confer with one from the Democratic Convention reported that the Democrats wanted them to accept their nominee for Congress. The Populist Convention declined the proposition and proposed that the Populist, Democratic, and Free-Silver men hold a joint convention to nominate a delegate to Congress, and that a two-thirds vote be required to secure such nominee. The report of this committee was adopted by a vote of 93 to 58.

The Democratic Convention adopted resolutions congratulating fellow-citizens of all parties on the fact that liberty-loving Democrats in Congress, by their persistent efforts, had inaugurated the war, and greeted the soldiers from the Territory; deprecated "the existence of the Territorial law under which equalization has been sustained by the Supreme Court of this Territory," and demanded its repeal; favored election of Territorial officers by the people; denounced "the cowardice and perfidy of the Republican leaders for secretly knifing the free-homes measure which they ostensibly pretended to support"; favored union of all parties opposed to the Republican; and "such legislation as will result in the reduction of railroad fares and the abolishment of the entire free-pass system."

The proposition of the Populists was accepted by a vote of 89 to 71.

A joint convention was held on the 14th and reached a nomination on the 15th, after 74 ballots. J. R. Keaton, a Democrat, was made the candidate. A fusion platform was adopted, which was substantially the same as that of the Democratic Convention.

The Middle-of-the-Road Populists, being opposed

to fusion, held a convention in Guthrie, Sept. 1, and nominated A. S. Hankins for Delegate to Congress.

They adopted the name "Free-Silver party," as they could not get a place on the official ballot under the old name on account of the fusion by the regular convention of the party.

The resolutions showed more originality than is usually found in party platforms. They declared the "shortening of the distance between the voters and the legislators by means of the initiative and referendum" to be the great issue of the age; demanded the remonetization of silver, in regard to which they said: "We can not look to the Democratic party for relief, because in the past twenty years their representatives in Congress have killed 15 bills for the repeal of that act of 1873. The Eastern end of the Democratic party is for gold; the Western end for silver; and no man can tell which will be uppermost in the convention of 1900. We can not afford to scuttle our own ship when it is uncertain whether the other vessel is a friend or a pirate. The continued existence of the People's party is to-day the first necessity of a continued civilization. The whole destiny of mankind is wrapped up in its fate. To abandon it for a few petty offices would be a crime against the human family. We have no hostility toward the Democrats or Free-Silver Republicans, individually; many of them are our best citizens, and we earnestly and cordially invite them, in the name of God and the suffering world, to come in and help us right the wrongs of mankind." They declared the greenbacks to be the best currency the country ever had; demanded postal savings banks; favored free homes and Statehood; called for Government control of railroads and telegraphs, declaring that in respect to the power of corporations this Government is "worse than that of Russia or Timbuctoo." In reference to the war they said: "We approve of the war for the liberation of Cuba, and demand that bloody and brutal Spain be driven completely and forever from the American continent. We will stand by our soldiers and sailors to the last gasp; but we are not willing that, under cover of their banners, the bonded debt of this country shall be vastly increased, at the expense of the business and industry of this country. We do not believe in enslaving Americans to liberate Cubans."

A Free-Silver State Convention was held at Guthrie in September, which approved the nomination of J. R. Keaton and adopted resolutions declaring Populistic principles, and said on Territorial affairs: "We condemn the present Territorial administration for increasing the salary of the School Land Commissioner from \$1,800 to \$2,500 per annum, and allowing the Attorney-General, in addition to his salary, the sum of \$3,491.90 for collecting school land notes."

The Republican Territorial Convention met at El Reno, Aug. 24, and nominated Dennis T. Flynn for Delegate to Congress, on the third ballot.

The resolutions praised the national Administration and the conduct of the war enthusiastically, and on Territorial interests said, in part:

"We demand the enactment of a law providing for such penalties as will enforce a uniform assessment of all property at its actual cash value, and providing that the equalization of assessments shall not increase or diminish the aggregate of the assessed valuation of the taxable property of the Territory."

"We condemn the last fusion Legislature for its unparalleled extravagance in the employment of useless clerks and *attachés* and for public printing and for extravagant appropriations of all kinds.

"We heartily indorse the course of the last Re-

publican Delegate in Congress and his masterful fight for free homes, and we hereby declare that had he been returned to Congress the free-homes measure would have been now enacted into law. We hereby charge that the failure of said measure is due to the incompetency of the Populist-Democratic Delegate in Congress, and to the fact that his election was taken as a declaration of the people of Oklahoma against the measure.

"We demand the opening at the earliest date possible, of the Wichita, Kiowa, and Comanche reservations.

"We present to Congress, in Oklahoma, 300,000 intelligent and patriotic citizens, and in the Indian Territory as many more. We insist that we are entitled to Statehood, either with or without the Indian Territory, and we favor immediate Statehood with such boundaries as Congress in its wisdom may provide.

"The principles of the Republican party are against trusts and combines of every character detrimental to the best interests of the people. We therefore condemn the trust existing in this Territory known as the Wheat Buyers' Association as being contrary to the fundamental principles of the Republican party, in so far as said association interferes with the freest competition in the purchase or sale of grain.

"We demand the vigorous enforcement of the criminal laws, with equal and just legal rights to all, that lynchings and like outrages may be suppressed.

"We recognize the disadvantages to the people of the Indian reservations where a court has been established by a recent act of Congress, arising from the fact that the juries for said court have to be drawn from adjoining counties. We respectfully urge upon Congress that the law establishing such court be amended so as to provide for the drawing of juries within the boundaries of the reservation, for the trial of such cases as are within the jurisdiction of said court."

The Republican candidate was elected, the vote standing: Flynn, Republican, 28,456; Keaton, Fusion, 19,088; Hawkins, Populist 1,269.

The Territorial Legislature will stand: Republicans in Council 8, in House 17; Democrats in Council 2, in House 3; Fusionists in Council 3, in House 3; Populists in House 3.

ONTARIO, a province of the Dominion of Canada; area, 220,000 square miles; population in 1891, 2,114,321. Capital, Toronto.

Government and Politics.—The Hon. A. S. Hardy, who in 1897 had succeeded Sir Oliver Mowat as Premier and Attorney-General, had to appeal to the people for the first time, and opposed to him was also a new leader of the Conservative party, Mr. J. P. Whitney. The elections took place on March 1, and it would be difficult to define in a few words the opposing policies. They may perhaps be summed up in the contention on one side that the new Premier should be given a chance; that the Government of which this was a continuation had been great and good; and that Liberalism was now triumphant everywhere and thoroughly loyal to the empire. The Opposition claimed that many years of office generated corruption, carelessness, and maladministration; that it was time for a change; and that things should be swept as only a new broom could sweep them. The result was the election of 48 Liberals and 46 Conservatives. Two ministers, Messrs. Gibson and Dryden, were beaten, but were afterward re-elected for other constituencies. The new house included 29 farmers, 14 lawyers, 6 doctors, 5 journalists, and 6 mill owners. A large number of election protests were at once filed on either side, and a miniature election took place

in subsequent months, in which the party in power naturally had an advantage and gained somewhat. During the following June while several election petitions were before the courts, the Opposition discovered that there was some question as to the right of poll constables to vote. They had done so unchallenged for twenty years, but if their votes could be thrown out it would unseat a large number of Liberal members and leave the Government in a minority when the new House met. Without awaiting this result, however, Mr. Hardy had the Legislature summoned in special session, after publishing a long personal memorandum addressed to the public and explaining his own position.

On Aug. 3 Sir Oliver Mowat, the Lieutenant Governor, opened the House with a speech from the throne, in the course of which he said:

"I rejoice on being able to congratulate you that the province is being favored with another abundant harvest, and that the prices of almost all the products of the farm have been satisfactory to the agriculturist. There has been no abatement in the efforts of the Department of Agriculture to promote the welfare of the husbandmen through the operations of the numerous agencies and organizations under its direction, and by the preparation and wide circulation of bulletins and reports. The practical and experimental work in connection with the Agricultural College continues to afford much valuable instruction and encouragement to those who can personally investigate it, as is evidenced by the constantly increasing number of farmers who continue to visit and inspect its operations, not less than 30,000 having visited the college and farm during the month of June last. It is gratifying to learn that the work of the department in enforcing the provisions of the act of last session with respect to the spread of the San José scale, and in protecting the orchards of the province from the destructive ravages of the pest, has been actively pursued, and with good results.

"It is also a subject for congratulation that the trade and commerce of the province are constantly increasing, and that agricultural, manufacturing, and commercial enterprises are alike prosperous and successful. Great activity still prevails in the mining districts, and there is abundant evidence that the mineral wealth of northern Ontario is being steadily developed.

"It is gratifying to record the increasing interest which is being taken in road and street improvements throughout the province. Successful efforts to bring about reform are apparent in many districts. The fullest information appears to be desired by both urban and rural municipalities regarding this branch of public work, the importance of which can not be overestimated.

"Owing, I believe to the unsettled condition of certain branches of trade in the adjoining republic, arising out of the war with Spain, and to the duty imposed by the tariff of that nation on lumber when imported, the lumber market has not been as active as in former years. I am pleased to be able to state that shipments to the British markets have greatly increased, and that satisfactory prices have been obtained.

"The work of the commission appointed last year to inquire into the practicability of preserving and restoring the white pine upon lands in the province not adapted for agricultural purposes or for settlement, and whose preliminary report with recommendations was presented last session, has been continued during the year. The final report of the commission has been prepared for distribution during the session; in that case a measure supplementary of the forest reserves act of last session may be submitted to your consideration.

"In view of the great number of election petitions awaiting trial, it is desirable to facilitate their disposal by the courts and to lessen the expense and labor of the trials as far as may be practicable, and so that they may, if possible, be disposed of by the time this Assembly may again meet in the early part of the coming year. To this end a bill will be submitted for your consideration making provision for the speedy determination of the question of the right of electors to vote who have been called upon or appointed by the returning officers, or deputy returning officers, under the election act, to act as constables or special constables on election or polling day, or to perform other work or public duties connected with the election and for other purposes.

"The long-contested question between the Government of Canada and the provinces relating to the rights in and over provincial fisheries has at length been finally decided by the Privy Council. Leases of fishing rights in provincial waters, and licenses and permits to fish in provincial waters, have heretofore been granted by the Department of Marine and Fisheries under the laws and regulations of the Dominion. The judgment of the Privy Council has determined that the right to the fish in provincial waters, including the waters of the Great Lakes and international and interprovincial rivers, can be granted only by the provinces, and that the revenues derivable therefrom are payable to the provincial governments. The regulations as to the time and manner in which fish may be taken, the instruments of capture which may be employed, the fixing of close seasons, and some other minor matters of regulation, are by the judgment declared to be subject wholly to Dominion legislation, and the Government of the Dominion is held entitled to impose a tax for revenue purposes as a consideration of right to fish.

"The proposed legislation in respect to the two last-mentioned questions is among the reasons for your being called together at this somewhat unusual season of the year, and I trust that you will deem them of sufficiently pressing importance to secure your approval of the course which has been taken. It is presumed that when you have disposed of matters which are immediately urgent, you will prefer postponing the consideration of other and general business until the early part of the next year."

Mr. F. E. A. Evanturel was re-elected speaker. A stirring debate ensued upon the formal address in reply to the speech from the throne, and Messrs. Hardy and Whitney covered the whole political ground in able speeches. Immediately following, a bill was introduced to bring before the Court of Appeal the question whether constables had the right to vote and declaring that, should the decision be in the negative, any member unseated by the striking out of these votes should be entitled to appeal to his constituency again under a change of law by which the constable should be given the clear right to vote. This was a different policy from that proposed in Mr. Hardy's memorandum, in which he had favored retrospective legislation legalizing the votes in all past as well as future cases. But the public opposition was so strong to a proposal which involved the possible seating of members by legislation and their own votes in the Assembly, that it was abandoned. After a warm debate the bill passed by 6 majority on Aug. 19. Eventually the Court of Appeal decided that the constables were not disqualified by law, and the whole question was settled. On Aug. 24 the brief special session was adjourned.

Agriculture.—The crops in Ontario were very good during the season of 1898, the following being

the acreage sown: Hay, 2,453,508; oats, 2,376,860; winter wheat, 1,048,182; peas, 865,951; corn, 520,696; barley, 438,784; spring wheat, 389,205; potatoes, 189,946; rye, 165,089; turnips, 151,601; buckwheat, 150,394; mangels, 47,923; beans, 45,220; carrots, 12,418.

The total yield of fall wheat was 25,305,890 bushels, and of spring wheat 6,714,516 bushels. Oats were 82,132,026 bushels, and hay 4,399,063 tons.

The live stock in the province in 1898 was as follows: Horses, 611,241; cattle, 2,215,943; sheep, 1,677,014; hogs, 1,642,787; poultry, 9,084,478. The number of live stock sold or slaughtered during the year was 44,404 horses, 552,485 cattle, 664,329 sheep, 1,529,697 hogs, and 3,072,767 poultry—an increase in each case.

The Lumber Question.—The protection of Ontario timber limits for Ontario mills and workmen was an important question at the close of the session of the Legislature in December, 1897. It had long been the custom of American mill owners and manufacturers to cut their timber on the Canadian side with American workmen, and float it over and manufacture it in the United States with American labor. This, naturally, was not liked, and the Hardy Government was at last impelled to the following legislation: The Government proposed that licenses issued after April 30, 1898, shall contain a condition that pine timber shall be manufactured in Canada. This restriction does not affect existing licenses. All future sales of timber limits shall be subject to the manufacturing condition. The new regulation which the Legislature was asked to approve read: "Every license or permit to cut pine timber on the ungranted lands of the Crown, or to cut pine timber reserved to the Crown on lands located, sold, granted, patented, or leased by the Crown, which shall be issued on or after April 30, 1898, shall contain and be subject to the condition that all pine which may be cut into logs or otherwise under the authority or permission of such license or permit shall, except as hereinafter provided, be manufactured into sawn lumber in Canada, that is to say, into boards, deals, joists, lath, shingles, or other sawn lumber, or into board or square or other timber in Canada, and such condition shall be kept and observed by the holder or holders of any such license or permit who shall cut or cause to be cut pine trees or timber under the authority thereof, and by any other person or persons who shall cut or cause to be cut any of such pine trees or timber under the authority thereof; and all pine so cut into logs or otherwise shall be manufactured in Canada as aforesaid." Should any holder of a timber license violate the condition, the license will be suspended, and shall not be reissued until the Lieutenant Governor directs. In order to prevent a breach of the regulation, the Commissioner of Crown Lands is authorized to seize logs illegally cut, and he shall hold them until security is given by the owner that they shall be cut in Canada. In the event of the refusal of the owner to give such security within four weeks after the seizure, the commissioner may sell the logs by auction to some person who will undertake to manufacture in Canada. The proceeds of this sale, after all expenses and debts are deducted, shall be paid to the owner of the limit or the holder of the permit. There is one exception to the general policy which has been proposed, made necessary by the fact that the purchasers of limits in 1890 under a manufacturing obligation paid a sum of money to be released from the necessity of sawing in Canada. The limits sold in 1890 are composed of the last half of the township of Awere, in Algoma, containing 18½ square miles, and 22 square miles in the district of Thunder Bay, berths 2, 3, and 4. It is made clear that the regu-

lation shall not apply to "logs or timber cut and in use in Canada for any purpose for which logs or timber in the unmanufactured state are or may be used." The Lieutenant Governor in Council is authorized to make any further or additional regulations necessary to enable the Commissioner of Crown Lands to carry into effect the object and intent of the regulations.

This was strongly objected to by the Michigan lumbermen and by all Americans holding Canadian timber limits. What followed was described by Mr. Hardy in the House on Aug. 23, 1898:

"1. The Government has received intimation that American lumbermen holding timber limits in Ontario have presented to the Government of the United States objections to the act of last session respecting the manufacture of pine cut on the Crown domain. 2. That these representations have been forwarded to the Imperial Government, and through the proper channels to the Government of Canada. 3. The correspondence has been transmitted to the Government of the province by the Federal Government for an answer, but not for publicity until further consideration by all parties concerned. 4. Dispatches answering the complaints have been forwarded to the Federal Government on behalf of the province, in which the contention of the American lumbermen is opposed throughout. 5. Had the correspondence been public, it would have been laid upon the table of the House. 6. I have reason to believe that the dispatches of this Government in reply to the American claim, or some of them, have been forwarded to the Government of the United States by the Government of Canada, but I am not aware whether any reply has been received. 7. The Government understands that counsel have been retained by the American lumbermen."

The matter has since come before the International Conference at Quebec and Washington. Between 1892 and 1896 the Canadian export of pine alone to the States increased from 32,000,000 feet, valued at \$261,479, to 211,000,000 feet, valued at \$1,859,369.

Mines and Minerals.—Ontario mineral production made great progress in 1898, and at the close of the year it was announced that the famous Sultana mine in the north of the province had been sold for \$2,000,000 cash. The following table from the "Annual Report of the Bureau of Mines" speaks for itself:

ITEMS.	1897.	1898.
<i>Gold.</i>	12 months.	6 months.
Ore treated (net tons).....	27,549	24,779½
Value of gold.....	\$190,244	\$133,744
<i>Silver</i>		
Ore treated (net tons).....		73
Value of silver.....		\$10,632
<i>Nickel and Copper.</i>		
Ore smelted (net tons).....	96,004	55,871
Value of nickel.....	\$359,651	\$225,763
Value of copper.....	\$200,067	\$141,744
<i>Iron.</i>		
Iron ore (net tons).....	2,763	13,032½
Value of mines.....	\$4,649	\$23,845
<i>Pig Iron.</i>		
Ontario ores (net tons).....	2,770	9,215
Foreign ores.....	34,722	29,565
Pig-iron product.....	24,011	25,423
Value of pig iron.....	\$288,128	\$306,083

The total value of the metal product for the six months of 1898 was \$840,811, against \$1,042,779 for the whole of 1897.

During the year practical surveys were made of a great thirty-mile belt of corundum which had been discovered in Renfrew County. This valuable mineral was found to exist in immense quantities and regulations were duly made for its development.

OREGON, a Pacific coast State, admitted to the Union Feb. 14, 1859; area, 96,030 square miles. The population was 13,294 in 1850; 52,465 in 1860; 90,923 in 1870; 174,768 in 1880; 313,767 in 1890. By the State census of 1895 it was 362,762. Capital, Salem.

Government.—The following were the State officers during the year: Governor, William P.

Lord; Secretary of State and Auditor, Harrison R. Kincaid; Treasurer, Philip Metschan; Attorney-General, C. M. Idleman; Superintendent of Instruction, George M. Irwin; Adjutant General, B. B. Tuttle—all Republicans; Fish and Game Protector, Hollister D. McGuire; Food and Dairy Commissioner, W. W. Baker; Railroad Commissioners, I. A. Macrum, J. B. Eddy, and A. I. Wagner; Chief Justice of the Supreme Court, Frank A. Moore; Associate Justices, Robert S. Bean and Charles E. Wolverton; Clerk, J. J. Murphy—all Republicans.



THEODORE THURSTON GEER,
GOVERNOR OF OREGON.

Finances.—The receipts into the State treasury during the biennial term ending Dec. 31, 1898, including the balance on hand, were \$2,777,031.50; the disbursements from the several funds were \$2,013,322.27; leaving a balance of \$763,699.23. Oregon has no State debt. The principal of the common-school fund, which was \$150,398.28 at the close of 1896, is now nearly three times as much. The tax levy for 1899 is greatly increased, on account of appropriations made by the special session, for objects not anticipated or contemplated by the board when the tax levy was made, to wit: \$33,000 for the eastern Oregon Asylum lands, \$41,000 for the unorganized Legislature of 1897, \$15,000 for the Omaha Exposition, \$25,000 for an agricultural college building, and others, making in all about \$200,000 in excess of the amount levied by the board, or one fourth of the entire tax levy. The rate for 1898 was 3¼ mills, for 1899 it is fixed at 5½ mills.

Education.—The State Superintendent recommends in his report that third-grade certificates be abolished; that the course of study to be pursued by students in private schools who desire to obtain State diplomas be made uniform; that the law making county superintendents *ex officio* members of the State Board of Examiners be amended so that all examination papers of candidates for State or life diplomas must be passed upon by members of the State Board of Examiners under supervision of the State Superintendent; that the number of subjects upon which applicants for State and life diplomas must be examined be increased; that only normal schools established by the State be permitted to grant teachers' diplomas, and that the number of such schools be limited to three—one each at Monmouth, Ashland, and Weston.

The Portland schools had 11,345 pupils and 278 teachers during the year ending in June. The school population of the State is 129,956.

The State University at Eugene has more than 500 students.

Under the present system the State has a loan

agent in each of the 32 counties. Applications for loans are made to the local agents, and are by them granted or rejected. It is found that many injudicious loans have been made. The school fund has been "worked" by securing loans in excess of the value of the land which is mortgaged as security. The State has been put to the extremity and expense of many foreclosures.

There were 336 students enrolled at the Agricultural College in 1898, of whom 15 were graduates and 24 special students, the remainder in the four regular classes. The Mechanical Hall was destroyed by fire, Sept. 28. An appropriation of \$25,000 from the Legislature and \$16,000 insurance enabled the regents to rebuild satisfactorily.

It was thought best to consolidate the Puget Sound University and the Portland University into one institution, both being under the care of the Methodist denomination. Tacoma and Portland were named as its location, and Portland was chosen, with the condition that a certain amount of funds should be raised. The trustees of Puget Sound University, however, seem to have decided not to be bound by the arrangement, and to intend continuing their own institution.

Charities and Corrections.—There were 323 convicts in the Penitentiary at the close of the year. The amount paid out of the Penitentiary fund during the biennial term was \$5,613.56.

The Reform School had 99 inmates at the close of the year.

The total enrollment at the School for the Blind was 36 in the two years, and the cost was \$15,985.27. Four teachers are employed.

The Deaf-Mute School had an attendance of 69, with 4 teachers. The expenditures for two years were \$24,381.58.

The Orphans' Home at Salem has been offered to the State by the Children's Aid Society. There are 20 inmates, and the property consists of 15 acres of land with good buildings.

The Asylum for the Insane had 1,150 patients in October, of whom 372 were women. The cost *per capita* for the month was \$9.57.

Banks.—The 29 national banks have an aggregate capital of \$2,520,000; surplus, \$479,242; undivided profits, \$881,280; individual profits, \$9,524,099; loans and discounts, \$6,029,243.

Railroads.—The State has about 1,500 miles of railroad. The completion and opening of the Portland and Astoria road in 1898 gave the western section, with two exceptions, all the railroad lines it will require for some time. These exceptions are roads affording outlets to the valley for the products of Coos, Curry, and Tillamook Counties.

As far south as Corvallis the Willamette river is navigable for boats of light draught, and much of the freight of the valley towns is handled in that way. Southern Oregon is dependent upon the Southern Pacific for its transportation facilities.

The assessed valuations of railroads as returned by county assessors show a total of \$5,197,340. The average per mile varies from \$600 in Klamath County, on a lagging road, to \$9,184 in Jackson County.

Military.—Oregon was required to furnish a regiment for the Spanish war, and the Second Regiment was recruited readily and sent. The regiment was kept for some time at San Francisco, after which it was sent to Manila and it was there at the close of the year, having lost 26 men by disease.

At a quarterly meeting, held in October, the State Military Board decided at once to take steps to reorganize the National Guard. A small amount of money is left from the old appropriation, enough to make a start in uniforming the new soldiery, and a further appropriation is expected from the Legislature that will enable the board to proceed

with the work of reorganization. The plan is to form 3 battalions, 1 in Portland, 1 in eastern Oregon, and 1 in southern Oregon. To this will be added Battery A, as soon as it is mustered out, and 2 separate companies.

The Grand Army has 59 posts in the State, with 1,861 members.

Products.—The estimate of the fruit product of the State in 1898 gives the following figures: Cured prunes, 700 car loads of 24,000 pounds, 16,800,000 pounds; evaporated apples, 6 cars, 150,000 pounds; fresh or green apples, 500 car loads, 11,250,000 pounds; fresh or green prunes, 150 car loads, 3,750,000 pounds; fresh pears, 100 car loads, 2,500,000 pounds; fresh plums, 75 car loads, 1,875,000 pounds; strawberries, 76 car loads. The total is 1,606 car loads of green and dried fruits. The cured-prune crop alone at 3½ cents a pound amounts to \$525,000, and the dried apples at 5½ cents to \$82,500. As a by-product of the latter, 20 tons of apple peelings, heretofore thrown away, were used in making jelly, and, in addition, small apples were utilized as "chops" and exported.

The grain product is given as 22,000,000 bushels of wheat, 1,800,000 of barley and rye, nearly 400,000 of corn, and 7,000,000 of oats. The potato crop was 5,000,000 bushels; the hay, 1,500,000 tons; and there were 600,000,000 feet of lumber.

The value of dairies and dairy products is about \$6,959,895. The amount of butter produced during the year is estimated at 8,798,571 pounds.

The gold product of 1898 is estimated at \$4,878,530. Of this, \$2,500,000 came from Baker County and \$1,200,000 from Union. Other estimates place the product much lower.

The silver product is small, averaging about \$50,000 a year.

A canvass of the State made by county judges and assessors shows the following number and valuation of the stock: Horses, 217,535, value \$4,063,373; cattle, 459,084, value \$8,030,080; sheep, 1,807,928, value \$3,867,488; swine, 87,532, value \$261,765; total, 2,572,029, value \$16,222,712. The valuation for assessment is not the full market value; the estimates of real value aggregate \$20,986,716.

The estimate of the wool clip of 1898 gives a total of 21,291,812 pounds for Oregon, larger than that credited to any other State.

A statement on the salmon industry of Columbia river gives the gross weight of salmon utilized in 1898 as 832,600,211 pounds, the number of cases packed, 12,711,626 and the value \$71,628,165.63.

Public Lands.—According to the report of the Commissioner of the General Land Office, the total area of land surface in Oregon is 61,626,218 acres, of which 35,897,869 are unappropriated and unsurveyed, 24,095,763 acres being surveyed and 11,802,106 unsurveyed. The area reserved is 5,467,702; appropriated, 20,260,647. Of the 35,897,869 acres of unsurveyed and unappropriated lands, 17,067,000 acres are desert and grazing lands, and 18,830,869 woodland and forest. None of it is mentioned as barren, irreclaimable wastes. The estimated water supply of the State is 3,000,000 acres.

In this year 18 mineral and mill site patents for lands in Oregon were issued, and 57,883.59 acres were certified or patented on account of railroad grants. The swamp-land selections approved aggregated 1,791.71 acres, and those patented, 2,190.21. Since the date of the grants 222,567.93 acres have been patented. The selection of 73,695.15 acres of school land, indemnity lands by the State, was approved.

The estimated area of forest reservations in Oregon are as follows: Bull Run, 142,080 acres; Cascade, 4,492,800 acres; Ashland, 18,560 acres.

Portland.—From a special edition of the "Oregonian" it is learned that the death rate in Portland in 1898 was but 8.66 in 1,000. In 1893 the rate was 13; it steadily decreased until 1897, when it was 8.05. The improvement of water and sewer conditions have contributed to lower the rate. City garbage is disposed of by means of a crematory in the extreme northern part of the town, which is operated at a cost of \$450 a month.

The city stood fourth among the cities of the Union in its shipments of wheat in October, the figures being 1,370,524, and took the same rank for the ten months ending Nov. 1. For the whole year the shipments amounted to 14,363,865 bushels.

The list of exports and imports for the year show a large balance of trade in favor of Portland, the exports amounting to \$12,796,666 and the imports to \$1,538,887. Receipts from customs were \$421,046.66, as against \$269,922.80 in 1897.

There are in the city 1,079 firms representing financial strength aggregating \$21,233,500.

Legislative Session.—The Governor called the Legislature to meet in special session, Sept. 26, not naming the subjects for its consideration, but giving as a reason that matters of vital importance to the people of the State seemed to require it. The failure of the last Legislature to organize not only left vacant one of Oregon's seats in the United States Senate, but left the business affairs of the State unsettled for want of appropriations. Warrants were out for more than \$800,000, and more than \$1,360,000 was in the treasury with no authority for payment.

The Legislature, which was elected in June, stood politically: Republicans in Senate 24, in House 42; Democrats in Senate 3, in House 6; Populists in Senate 3, in House 2; Silver Republicans and Union 4 each in House; Fusion, 1 in House.

The Senate elected Joseph Simon President, and E. V. Carter was chosen Speaker of the House.

The Governor's message set forth the importance of the questions to come before the United States Senate, and the desirability of the State's being fully represented during the whole session, as it could not be if no Senator were elected till the regular term of the Legislature in 1899. He also advised the passing of an appropriation bill to clear up the business of the existing administration before the new one should come in, leaving to the regular session only the appropriations that properly belong to it. The business of the Supreme Court being two years behind, the Governor suggested two methods of relief: one, the enacting of a law to limit appeals to the Supreme Court, in civil cases, to those involving title to real estate, or matters affecting the public revenue, the construction of the Constitution of the State or the United States, or where questions of franchise are raised, or where the amount of the judgment exceeds \$300; the other, the enactment of a law authorizing the Supreme Court to appoint three commissioners, for a term of four years, to assist the court in hearing and deciding cases. He favored the second method. Other subjects mentioned were: A State exhibit at the Paris Exposition, and settlement with a manufacturer who had taken the contract for the labor of the penitentiary convicts. After the fire at the Agricultural College the Governor sent a special message, recommending an appropriation for rebuilding; and \$25,000 was accordingly voted for the purpose.

Henry W. Corbett was nominated by the regular Republican caucus for United States Senator, to fill the vacancy left by the failure to elect a successor to J. H. Mitchell in 1897. But there was a faction of the party which was united in opposition to him, and it was strong enough to prevent his election. State Senator Joseph Simon was therefore made the

candidate of the Republican caucus, and was elected by 64 votes against 23 for Harrison R. Kincaid, candidate of the Silver parties.

The general appropriation bill carried amounts aggregating about \$1,220,000.

The Railroad Commission and the State Board of Equalization were abolished.

A new fishery law was passed, providing an elaborate system of licenses, these to go into a fund for the artificial propagation of fish. No one can take salmon or sturgeon except with hook and line, without a license, or engage in the business of packing or dealing in fish; and only citizens of the United States or those that have declared their intention to become such one year previously, and have been residents of Oregon for six months, may fish for salmon or sturgeon, unless they hold licenses from the State of Washington, which has concurrent jurisdiction over the Columbia river to fish therein. Cannerymen and dealers are classified according to the extent of their business, and the costs of licenses are graduated in proportion. Heavy fines are imposed on those found operating without license. The act extends the close season fifteen days in the spring, in order to allow the early run of salmon to get up to the spawning streams. Fishing is prohibited on those streams at all times, and very stringent provision is made in regard to structures or dams, which require their owners or operators to provide suitable fishways or passageways to be built through those obstructions to the satisfaction of the Fish Commissioner. To make the law fully effective it is necessary that the same provisions be made by Washington, which already has the license system.

A new school election law provides that any citizen, male or female, may vote at any school meeting or school election, in any district in this State, who is twenty-one years of age, has resided in the district thirty days, and has property in the district of the value of \$100, as shown by the last preceding county assessment, on which he or she pays a tax; and further, in districts of fewer than 1,000 inhabitants, fathers of school children or widows who have children of school age may vote for school directors and clerks without the property qualification.

A joint committee was appointed to revise the school laws, and report at the regular session.

Portland received a new charter, and there were other municipal charter acts.

Other measures passed were:

Providing that building and loan associations shall not issue non-contributing stock.

Providing for the punishment of any person injuring bridges, etc.

Making the earnings of a judgment debtor for thirty days prior to service of attachment exempt therefrom.

Providing for the protection of elk, grouse, and prairie chickens.

Fixing the legal rate of interest on judgments, etc., at 6 instead of 8 per cent.

Making proof of policy in force evidence of insurance in criminal cases.

Providing for the payment of the rejected volunteers.

To permit express companies to bring as many as four sheep at one time into the State without official inspection.

A joint memorial urging pension claims of Indian war veterans was passed, and seven joint resolutions, the subjects of which were: For committee to celebrate a semicentennial anniversary of acquisition of Oregon Territory by the United States; for appropriation by Congress for Cascade locks; urging Congress to open the Columbia river at the Dalles; urging retention of Battery B in United States service; favoring retention of Philippine Islands; to

distribute copies of Indian war history among Indian war veterans; and for printing the biennial report of the Secretary of State.

The session ended Oct. 15. T. C. Taylor was elected to succeed Joseph Simon, United States Senator-elect, as President of the Senate.

Political.—An election of State officers was held June 6. There were four tickets—Republican, Fusion, Populist, and Prohibition.

The paramount issue was the money question, and upon it the Republicans won by a large majority. Following is the declaration of their platform on this issue:

"We are in favor of the maintenance of the present gold standard. We are unqualifiedly opposed to the free coinage of silver and to all other schemes looking to the debasement of the currency and the repudiation of debts. We believe that the best money in the world is none too good to be assured by the Government to the laborer as the fruit of his toil and to the farmer as the price of his crop. We condemn the continued agitation for free silver as calculated to jeopardize the prosperity of the country and to shake the confidence of the people in the maintenance of a wise financial policy. We particularly condemn as unpatriotic the efforts of the free-silver agitators to array class against class and section against section. We declare that the interests of all classes and all sections of our country alike demand a sound and stable financial system."

Following is the ticket: For Governor, Theodore T. Geer; Secretary of State, Frank I. Dunbar; State Treasurer, Charles S. Moore; Supreme Judge, Frank A. Moore; Attorney-General, R. D. N. Blackburn; State School Superintendent, J. H. Ackerman; State Printer, W. H. Leeds; Congressmen, First District, Thomas H. Tongue, Second District, Malcolm A. Moody.

The State conventions of the Democratic, People's, and Silver Republican parties met at Portland, March 25. A fusion committee of nine from each convention held a conference and agreed upon the following distribution of offices: To the Populists, Governor, Attorney-General, State Printer, and Superintendent of Instruction; to the Democrats, Treasurer, Justice of the Supreme Court, and Congressman from the First District; to the Silver Republicans, Secretary of State and Congressman, Second District. The platform demanded—

"The free and unrestricted coinage of silver and gold at the present legal ratio of 16 to 1, without waiting for the consent of foreign nations; national money, safe and sound, issued by the General Government only, without the intervention of banks of issue, to be legal tender for all debts, public and private; also a just, equitable, and efficient means of distributing direct to the people through the lawful disbursements of the Government. It demanded that the volume of circulating medium be speedily increased to an amount sufficient to meet the demands of the business and population of this country and to restore the just level of prices of labor and production."

The ticket as completed stood: For Governor, William R. King; Secretary of State, H. R. Kincaid; Treasurer, J. O. Booth; Justice of the Supreme Court, W. A. Ramsay; Attorney-General, J. L. Storey; Superintendent of Instruction, H. S. Lyman; State Printer, Charles A. Fitch; Members of Congress, R. M. Veatch and C. M. Donaldson.

The Populists opposed to fusion bolted and chose the following candidates: For Governor, J. C. Luce; Secretary of State, Ira Wakefield; State Treasurer, J. K. Sears; Superintendent of Public Instruction, J. E. Hosmer; State Printer, D. L. Grace; Congressman, First District, J. L. Hill. Nominations

for Supreme Judge, Attorney-General, and Congressman from the Second District were left to be filled by the State Central Committee.

The returns of the election showed the following vote for Governor: Geer, Republican, 45,104; King, Fusion, 34,330; Luce, Populist, 2,866; Clinton, Prohibitionist, 2,213.

The Republicans elected both their congressional candidates and 66 of the 90 members of the Legislature.

OTIS, ELWELL STEPHEN, an American soldier, born in Frederick City, Md., March 25, 1838. While he was still a boy his parents removed to Rochester, N. Y., and purchased a large farm on the western border of the city. Elwell was graduated at the University of Rochester in 1858, standing high in his class. In his senior year he was president of one of the two literary societies. Among his classmates were Cephas B. Crane, the eminent Baptist clergyman, William Harkness, director of the Naval Observatory at Washington, Lemuel



ELWELL STEPHEN OTIS.

Moss, formerly president of Indiana State University, and William O. Stoddard, the author. Otis was admitted to the bar in Rochester in 1859, and was graduated at Harvard law school in 1861.

In the summer of 1862 he raised in Rochester a company of the One Hundred and Fortieth New York Regiment of Infantry. At the meetings which were held for the purpose of kindling enthusiasm and procuring enlistments he was solicited to speak, but declined to make any speech but this: "I do not say to you Go; I say Come." The One Hundred and Fortieth proved to be one of the finest organizations in the service, and is included in Col. William Fox's account of the fighting regiments. It was commanded, at first, by Col. Patrick H. O'Rourke, another Rochester boy, who was graduated at West Point in June, 1861, standing at the head of his class, of which George A. Custer was at the foot, with Alonzo H. Cushing, Charles C. Parsons, and Joseph C. Audenried between. O'Rourke had had more than a year of active service in the field, and his regiment was soon one of the most thoroughly drilled in the Army of the Potomac.

With this regiment Otis served during his whole career in the civil war. His promotion from the rank of captain to that of lieutenant colonel of the regiment (he was never a major) was received Oct. 24, 1863.

Gen. G. K. Warren had been O'Rourke's preceptor at the Military Academy, and when his quick military perception showed him that the unoccupied Little Round Top was the key to Meade's position on the left, he turned to O'Rourke to assist him in securing it. The regiment had been ordered to Sickles's advanced position, and was proceeding thither, when Warren ordered it to turn to the left and occupy Little Round Top. The regiment promptly ascended the hill, helping to drag and lift part of Hazlett's battery up the rocky acclivity, and got there, while Hood's Texans were rushing up the southwestern slope. "O'Rourke's soldiers," says the Comte de Paris in his "History of the Civil War," "by a really providential coincidence, reach at full run this summit, which Warren points out to them as the citadel to be preserved at any cost. At their feet lies the vast battlefield, whence are heard vague noises and savage cries, the rattling of musketry, the cannon's roar, and where all the incidents of the combat are seen through a cloud of smoke; but they have no leisure to contemplate this spectacle, for they find themselves face to face with Lee's soldiers, who are climbing the hill on the opposite side. A few minutes' delay among the Federals would have sufficed to put the Confederates in possession of the summit. Never perhaps was seen the winner of a race secure such a prize at so little cost." But to that regiment the cost was not little. They left more than 188 of their comrades, including many officers, among the dead and wounded on those heights, and among the dead was O'Rourke, who had been killed by a sharpshooter as he stood on a rock, leading his men. He had had a presentiment that he would fall at Gettysburg, and Otis, to whom he made it known, could not reason him out of it.

At the battle of the Wilderness the One Hundred and Fortieth Regiment saw some of the hottest fighting, losing 255 men. Otis, who had risen to the rank of lieutenant colonel, commanded the picket line of the Fifth Corps. The regiment was soon under a fire before which it melted like snow. Eleven of its commissioned officers were killed or wounded, not one of the non-commissioned staff remained, and of the captains only three were left. Three days later Col. Ryan was killed at Spottsylvania, and Otis succeeded to the command of the regiment as lieutenant colonel.

From the Rapidan to the James the regiment, led by Otis, was constantly under fire, and it stands conspicuous among those losing the largest number during the civil war, leaving 149 men dead on the field. The various casualties finally left Otis in command of the regular brigade; but his turn came at last, for he was wounded in the battle of Chapel House, near Petersburg, Va., Oct. 1, 1864. His wound was so severe that he was not subsequently returned to duty, and he was honorably discharged from the volunteer service Jan. 24, 1865, bearing the brevets of colonel and brigadier general for gallant and meritorious service at Spottsylvania and Chapel House, Va.

On the organization of the Twenty-second Regiment of Infantry of the regular army from a battalion of the Thirteenth, Otis was appointed lieutenant colonel of the new regiment, his commission dating July 28, 1866. On March 2, 1867, he received the brevet of colonel in the regular army for gallant services at Spottsylvania. On the death of Col. George Sykes of the Twentieth Infantry, at Fort Brown, Texas, Otis was appointed colonel, and he assumed command of that regiment at Fort Brown, March 31, 1880. From 1867 to 1881 he served against the Indians.

At the time of the Custer massacre, in June, 1876, Otis, who was lieutenant colonel of the Twenty-second,

on duty at the lake posts on our northern frontier, was ordered to the front in command of six companies of the regiment. While passing down the Yellowstone his command was attacked by Indians near the mouth of Powder river. The troops were landed, and the enemy were driven into the hills, their camp being burned. On Aug. 7, 1876, Col. Otis joined Gen. Terry and marched with him up the Rosebud to re-enforce the column of Gen. Crook, finally taking post at Glendive, Mont. A wagon train sent from that post, under an escort of four companies of infantry, Oct. 10, 1876, was attacked by a heavy force of Indians and compelled to return to Glendive. Here Col. Otis reorganized it, and with the addition of another company to the escort set out in command to Tongue river. Fifteen miles from the post a force of 1,000 Indians attacked the little column of fewer than 300 men, and a running fight ensued, lasting all day. The Indians tried every artifice of which they were masters to break up the column encumbered with its wagon trains, including setting fire to the grass, but with no effect. The next morning the Sioux could be seen gathered in large numbers on the left flank of the column, and a runner was observed leaving a communication on a hill to the front, whence it was brought in by a scout. This was the letter:

"YELLOWSTONE.

"I want to know what you are doing traveling on this road. You scare all the buffalo away. I want to hunt in the place. I want you to turn back from here. If you don't, I'll fight you again. I want you to leave what you have here and turn back from here. I am your friend,

"SITTING BULL.

"I mean all the rations you have got and some powder. Wish you would write as soon as you can."

Col. Otis wrote to the effect that he had no intention of turning back, and if the Indians wanted another fight he was there to accommodate them. The Indians gathered as for a fight, but thought better of it and sent in a party under a flag of truce, who, after some talk, decided that they had had enough of Otis and preferred to surrender, which they did.

When, in 1881, it was decided to establish a school of infantry and cavalry at Fort Leavenworth, Kansas, Col. Otis was chosen to organize it, and he remained in command of the school and the post of Fort Leavenworth until 1885. The general is justly proud of the work he did in establishing upon a secure foundation this post-graduate school for army officers. When relieved from the command of the Leavenworth school he returned to the command of his regiment, the Twentieth Infantry, at Fort Assiniboine, Montana. He also had command of the post, one of the largest in the army, including several companies of cavalry. On Oct. 1, 1890, he was detailed for duty as superintendent of the recruiting service, and on Nov. 28, 1893, was promoted to the rank of brigadier general, passing over the heads of officers of longer service. On Dec. 1 following Gen. Otis was ordered to duty in command of the Department of the Columbia, with headquarters at Vancouver, Wash. In taking leave of his regiment he called attention to the fact that during the fourteen years of his command he had never found occasion to charge one of its officers with dereliction of duty, a fact which testifies to the character of the colonel as well as to that of the men he commanded.

When, in 1896, the Secretary of War required the assistance of an army officer for the important work of revising the "Army Regulations," Gen. Otis was ordered to Washington, and he spent several months

at the War Department engaged in that work. In April, 1897, he was transferred to the command of the Department of Colorado. The routine duties of a department commander in time of peace impose no great tax upon a man's ability, but whatever work was given to Gen. Otis was done to the thorough satisfaction of his superiors. In December, 1897, he was ordered to duty as president of an important court-martial at Savannah, Ga., and he had just completed that work when the war with Spain began.

On May 28, 1898, he was appointed major general of volunteers and assigned to duty in command of the Department of the Pacific and Military Governor of the Philippines. Gen. Otis was chosen

to command the troops sent to the Philippine Islands because of his reputation as a thorough and reliable soldier. His conduct of the campaign which resulted in the discomfiture of Aguinaldo excited the admiration of foreign military observers. With the help of the trained and experienced officers under his command—Major-Gens. Thomas M. Anderson and Arthur MacArthur, Brig.-Gens. M. P. Miller, Harrison Gray Otis, Samuel Owenshine, Irving Hale, Charles King, and others—Gen. Otis has fashioned into an army the inexperienced volunteers who form the chief part of his force, and made the most effective use of their admirable fighting qualities. Gen. Otis is author of a book entitled "The Indian Question" (New York, 1878).

P

PARAGUAY, a republic in South America. The legislative power is vested in a Congress consisting of a Senate of 13 and a Chamber of 26 members elected by universal male suffrage. Gen. Juan B. Eguisquiza was elected President of the Republic in 1894 for the term ending Nov. 25, 1898. The Cabinet at the beginning of 1898 was composed as follows: Minister of the Interior, A. M. Martinez; Minister of Foreign Affairs and Colonization, J. S. Decoud; Minister of Finance, A. Cañete; Minister of Justice, Worship, and Public Instruction, R. Mazó; Minister of War, E. Aceval.

Area and Population.—The area is 97,707 square miles, with a population estimated in 1897 at 600,000, not including 60,000 civilized and 70,000 uncivilized Indians. The Government, which formerly owned 75 per cent. of the land, has disposed of a great part of the public domain to foreign settlers, much of it in large blocks. The number of immigrants in 1895 was 243, of whom 73 were Germans, 34 Swiss, 29 French, 26 Italians, and 81 of other nationalities.

Finances.—The revised estimates for 1897 made the total receipts \$5,462,475, of which \$1,900,915 were hypothecated revenues, leaving \$3,562,560 for the expenses of the Government.

The foreign debt, which was scaled down for the second time by an arrangement made with the bondholders in 1895 for the assignment of public revenues to the service of the debt and the reduction of interest and funding of arrears of interest, amounted in 1897 to £994,600 sterling. The Government is responsible, moreover, for £374,871 of bonds of the Paraguay Central Railroad, and owes old indemnity debts to Brazil and the Argentine Republic amounting respectively to \$9,876,500 and \$12,393,600.

Commerce and Production.—The chief industry is the cultivation of *yerba maté*, or Paraguay tea. The lands on which the plant is grown have been sold by the state to private companies and individuals. The quantity exported in 1896 was 9,024 tons. There are vast forests containing valuable timber, which is now exported to European and South American countries. There were 2,102,680 cattle in 1896, and nearly 100,000 hides are exported annually. Tobacco is grown for export. During 1896 there were 666 vessels in the foreign trade, of 176,638 tons, entered, and 613, of 147,640 tons, cleared at the port of Asuncion.

Communications.—The railroad from Asuncion to Pirapó has a length of 155 miles. The number of letters, etc., that passed through the post office in 1896 was 777,617.

PENNSYLVANIA, a Middle State, one of the original thirteen, ratified the Constitution Dec. 12,

1787; area, 45,215 square miles. The population according to each decennial census, was 434,373 in 1790; 602,365 in 1800; 810,091 in 1810; 1,047,507 in 1820; 1,348,233 in 1830; 1,724,033 in 1840; 2,311,786 in 1850; 2,906,215 in 1860; 3,521,951 in 1870; 4,282,891 in 1880; and 5,258,014 in 1890. Capital, Harrisburg.

Government.—The State officers for the year were: Governor, Daniel H. Hastings; Lieutenant Governor, Walter

Lyon; Secretary of the Commonwealth, David Martin; Secretary of Internal Affairs, James W. Latta; Treasurer, Benjamin J. Haywood, succeeded May 1 by James S. Beacom; Auditor, Amos H. Mylin, succeeded May 1 by L. G. McCauley; Attorney-General, Henry C. McCormick; Adjutant General, Thomas J. Stewart; Superintendent of Public Instruction, Nathan C. Schaeffer;

Insurance Commissioner, James H. Lambert; Commissioner of Banking, B. F. Gilkeson; Secretary of Agriculture, Thomas J. Edge; Superintendent of Public Buildings, J. C. Delaney; State Librarian, W. H. Egle; Dairy and Food Commissioner, Levi S. Wells; Forestry Commissioner, J. H. Rothrock; Factory Inspector, James Campbell; State Veterinarian, Leonard Pearson; Economic Zoologist, B. H. Warren; Chief Justice of the Supreme Court, James P. Sterrett; Associate Justices, Henry Green, Henry W. Williams, James T. Mitchell, J. B. McCollum, John Dean, and D. Newlin Fell; Justices of the Superior Court, E. N. Willard, C. E. Rice, J. A. Beaver, J. J. Wickham, H. J. Reeder, George B. Orlady, and P. P. Smith. All the above named are Republicans, except N. C. Schaeffer, and Justices McCollum and Smith, who are Democrats.

Finances.—The Treasurer's report says: "The estimate of the Auditor General and State Treasurer for the year was \$11,561,000. The receipts are about \$1,000,000 short of this amount. This is due principally to two facts: First, on account of pending litigation over the construction of the act of Assembly under which the capital stock of corporations is appraised for taxation. A large per-



WILLIAM A. STONE,
GOVERNOR OF PENNSYLVANIA.

centage of this tax for 1897 has not been paid, and the receipts are almost \$500,000 below the estimate. Second, there should have been deducted from the estimate the sum of \$369,371.50, which sum is transferred annually to the sinking fund."

The capital stock cases have been decided, and the report says that sufficient time has not elapsed to estimate the effect of the ruling on the decision. The accounting officers have placed this item at \$4,000,000, which is about \$700,000 more than was received from this source during the last year.

The operation of the act of Assembly, providing for the payment of interest by banks in which the funds of the State are deposited, has proved quite satisfactory. The interest received by the State for the six months ending Nov. 1, 1898, amounted to \$45,838.09. Of this sum \$14,016.16 was paid into the sinking fund, and \$31,821.93 into the general fund. The sinking fund is increasing.

The payments during the last year exceeded the receipts by more than \$1,000,000, and the balance available for the payment of appropriations is \$1,027,194.23 less on Nov. 30, 1898, than it was on the same date the year previous. The balance available for the payment of appropriations on Nov. 30, 1898, was \$2,929,617.10, and the obligations due on the same date amounted to about \$5,500,000.

The public debt, according to the report, amounts to \$6,815,150, none of which is payable until 1912. The assets of the sinking fund to meet the debt are \$5,789,317.09, leaving a net debt of \$1,025,981.91.

From the report of the Superintendent of Public Printing, Thomas M. Jones, it appears that the printing forms a very large item of State expense. The bill of the present printer, Mr. Ray, for the year ending June 30 was \$67,056.89, but Mr. Busch, the former printer, had work ordered before his contract ended, which he delivered this year, amounting to \$173,373.28. Among the bills held up is one of \$57,862 for printing a book by Mr. Warren, former State Zoölogist, containing many costly colored prints of birds. It seems that for many years expensive pamphlets have been turned out by the State printer on the written order of minor officials, and the bills have been approved by the Superintendent of Printing and paid by the Auditor General without question. Instances are given of a highly illustrated report of the Fish Commission, which cost \$26,000, and a report of the State Board of Health republishing the entire proceedings of the National Sanitary Commission.

In regard to the methods employed in the conduct of the State treasury, Gov. Hastings says in his message:

"The operation of the act providing for the payment of interest by banks in which the State funds are deposited shows that the interest paid into the sinking fund for the six months ending Nov. 1, 1898, amounted to \$14,016.16, and into the general fund from the same source \$31,821.93. While this interest law is an improvement, and indicates the enormous sums which the State might have received during past years, yet, in my judgment, it does not correct the evil which it was intended to correct. The management of the State treasury has, for many years, been the subject of public criticism. While it may be true the State has lost no moneys deposited in the various banks throughout the Commonwealth, it can not be questioned that in the past the public funds have been used for political purposes by depositing them in favorite banks, where such deposits were expected to yield returns in the shape of political influence. This system can not be defended. It should not be in the power of any man to say what banks shall handle the millions of dollars that are annually paid into the State treasury. It would be far better for the State to

receive no interest upon deposits, rather than to suffer a system to continue which can be used for political purposes, and it is submitted that the evil will never be corrected until the State keeps its own money in its own vaults, as do many of the States, and is done by the United States."

Education.—The following items are taken from the report of the Superintendent of Public Instruction: Number of school districts in the State, 2,490; number of schools, 27,347; number of graded schools, 16,842; number of superintendents, 140; number of male teachers, 9,348; number of female teachers, 18,732; average salaries of male teachers per month, \$42.69; average salaries of female teachers per month, \$38.45; average length of school term in months, 7.97; whole number of pupils, 1,143,100; average number of pupils in daily attendance, 864,626; cost of schoolhouses—purchasing, building, renting, etc.—\$3,484,028.61; teachers' wages, \$10,332,759.97; cost of school textbooks, \$699,246.18; cost of school supplies other than text-books, including maps, globes, etc., \$433,106.68; fuel, contingencies, fees of collectors, and other expenses, \$4,695,259.87; total expenditures, \$19,644,401.31; State appropriation for the school year, \$5,500,000.

The State appropriation this year was on a new basis established by the last Legislature. Heretofore the millions granted to the schools have been distributed on the basis of the taxables. Under the new act of Assembly the money will be distributed one third on the number of schools, one third on the number of children between the ages of six and sixteen, and one third on the taxables. The provisions of the new law, which sets apart one third on the basis of the school children between the ages of six and sixteen, will be favorable, it is thought, to the populous centers and draw from the sparsely settled districts.

An official statement from the University of Pennsylvania says it is the purpose to establish a separate college for women, modeled on either Radcliffe or Barnard.

The Carlisle Indian School, at the close of its eighteenth year, had 762 pupils, of whom 337 were girls.

The Insane.—The Governor's message says: "The State hospitals contained at the close of 1897 over 1,500 patients in excess of their capacity, and 240 more than during the previous year. The annual increase in the number of indigent insane in all the institutions in the State is about 550. A large proportion of the overcrowding element in the State hospitals belongs to the class of quiet, chronic insane, which might be suitably provided for in county institutions at a greatly reduced cost. The present average *per capita* cost for maintenance in the State hospitals ranges but little less than the \$3.75 fixed by law. There are about 200 insane convicts in the State institutions, of whom 125 are in the State hospitals, to whom they were committed, by orders of court, generally from the penitentiaries and county jails. There are now 35 in the penitentiaries and jails and the remainder in certain county almshouses, having departments in which insane patients are received and treated."

Military.—The Adjutant General's report in March showed 878,394 men subject to military duty and a National Guard of 689 commissioned officers and 8,066 men.

Under the first call of the Secretary of War, in April, the quota of the State was 10 regiments of infantry and 4 batteries of artillery. Under the second call, in June, 18 separate companies of infantry were to be raised and added to organizations already in service.

Industries and Products.—The ninth annual report of the factory inspector's department for the

year ending Oct. 30, 1898, shows a marked increase in the work. Eighteen thousand two hundred and twenty-eight inspections were made, an increase of 8,315 over the number in 1897. Four thousand official visits were also made. Fourteen thousand three hundred and eighty-three orders were issued, an increase of 6,184 over 1897, with 13,183 compliances reported at this time.

Some of the statistics given by the report are: Employees in mills, factories, etc., 406,979, of whom 45,086 are aliens, the remainder native born or naturalized. Of 12,924 employed in sweatshops, 8,761 were aliens. In the bakeries 6,477 were employed, of whom 1,164 were aliens. Of 2,566 family workers, 1,667 were aliens.

There were 1,754 accidents, of which 78 were fatal. The preceding year but 940 were reported. The increase is due to the fact that a number of foundries, machine shops, iron and steel works were not amenable to the factory laws prior to this year. Several prosecutions were instituted against those who persisted in working minors and women over the lawful time. They were settled upon agreements that such violation should not be repeated, and all costs in the cases were paid by the defendants.

"The law regulating the manufacture of clothing, etc., enacted by the last General Assembly, would be an ideal one if the department had the power to confiscate goods made in unlawful and unhealthy places, and dispose of them in such a manner as would best protect the public health. The large contracts for soldiers' clothing, requiring prompt and quick delivery, were an incentive to those contracting for the work to be careless as to where the goods were made. In 9 places where clothing was being manufactured diphtheria prevailed in its worst form."

James M. Clark, chief of the Bureau of Industrial Statistics, has prepared an elaborate report on Pennsylvania's production for 1897 of pig iron, steel ingots, and tin plate. The total production of open-hearth steel for the year was 1,421,373 gross tons; Bessemer, 2,586,278 gross tons; crucible, 9,245 gross tons; combined production, 4,056,896 gross tons, an increase of 71,367 gross tons over the previous year. The total production of pig iron was 4,617,634 gross tons, an increase of 591,284 tons over the previous year. The average value was \$48,884,854, an increase of \$3,712,815. The average value per ton shows a decrease of 63 cents, the average value for 1896 having been \$11.21 against \$10.58 last year.

The aggregate cost of basic material out of which this production of pig iron was made, which means only the iron ore and scrap or cinder, if any were used, was \$9,962,533, an increase of \$3,711,113 over 1896. Neither fuel, limestone, nor any other item of cost is included as basic material with the iron-producing materials here named. The cost per ton of this basic material was \$6.48, a decrease of 4 cents per ton from 1896. The number of working people employed was 11,272, a decrease of 308 compared with 1896.

The aggregate amount of wages paid was \$4,676,970, an increase of \$87,805. The average yearly earnings were \$414.92. The capital invested in the active pig-iron furnaces in Pennsylvania for 1897 is estimated at \$41,000,000.

There were 15 black-plate works in operation in the State in the manufacture of tin plate. The capital invested was \$5,017,127, an increase of \$1,389,852 over the previous year. The entire production of black plate, tinned and untinned, was 254,157,601 pounds, an increase of 95,851,111 pounds over 1896.

The production of black plate which was not

tinned was 74,451,833 pounds, an increase of 23.1 per cent. over 1896. The value of this tinned product was \$5,180,624, an increase of \$2,022,925. The value of the black plate not tinned was \$1,657,297, an increase of 12 per cent.

In addition to these 15 tin-plate works manufacturing their own black plate and making tin plate from the billet or bar, 11 dipping works were in operation with a product of 45,926,000 pounds of tin andterne plate and a corresponding value of \$1,816,417. Eliminating the black plate made and not tinned, the entire production of tin andterne plate in Pennsylvania for 1897 was 225,631,766 pounds, an increase of 61.6 per cent. over the previous year. The corresponding value was \$6,997,041, an increase of \$1,951,944.

The combined product of the anthracite and bituminous coals from the State amounted to 106,000,000 short tons.

The wool clip of 1898 is given as 4,392,937 pounds.

Insurance.—The expenses of the State Insurance Department amount to about \$16,000 a year; the receipts from fees have gone as high as \$70,000. In 1898 about \$55,000 was turned into the treasury from this source; in 1895 the amount was \$37,279.76.

The commissioner says that soon after he assumed the duties of the office he gave attention to certain mutual fire insurance companies which had sprung up within a short time and had branched out extensively in underwriting not warranted in companies doing business on the mutual plan. The annual amount of money from these companies showed that an enormous amount was absorbed by salaries and expenses, while the fire losses paid were disproportionate to the amount of losses reported. An examination disclosed the fact that these companies had been started by a brood of promoters, who organized the companies solely for the purpose of extracting money from the gullible portion of the public. To obtain charters, both fraud and perjury were resorted to.

"A strict investigation was set on foot, with the result that two of the more prominent promoters were convicted and sent to jail for perjury. Since that time no companies of this character have presented themselves to the department for charters, and the companies in question, to the number of 33, have been forced out of existence. During the few years they flourished the promoters and managers drew several million dollars from the confiding public."

As a result of the supervision of the department there has been a large falling off during the last four years of the business done by worthless companies from other States.

The department discovered some time ago that several life insurance companies doing business in the State were really not what they claimed to be, but were liable to taxation, the result being that several thousand dollars of bank taxes were collected and taxes on their premiums will be collected in the future. Another source of revenue has been found in giving vitality to an act not previously enforced requiring agents of assessment life companies to have certificates of authority.

The Capitol.—After the passage of the act providing for a new Capitol eight plans were selected by experts and submitted to the commission. The following statement of the proceedings is taken from the Governor's message:

"At this point four of the five members of the commission declined to make a selection, and by resolution set aside and ignored the competition and all the plans presented. The only reason made public by them for taking such action was that the build-

ing, if erected under any of the plans, would exceed the limit of the appropriation and would require modification to come within the \$550,000. There was no evidence that the architects, or the experts passing upon the plans, had made any inquiry into cost of material or price of labor in Harrisburg or its vicinity.

"The four commissioners caused new plans and specifications to be made by an architect of their selection, and on Jan. 20, 1898, advertised for sealed proposals for the erection of a building according to his plans and specifications. An examination of these disclosed the fact that the commissioners proposed to let a contract for the erection, not of one building as required by the act of Assembly, but of an incomplete part of a larger structure intended ultimately for the accommodation of all the departments of the State government. The specifications called for 'temporary' work, particularly in the interior, and provided for the erection of a building in no sense fireproof, notwithstanding the act required the building should be as nearly fireproof as possible. Further requirements of the act were that it 'should be complete' and 'ready for occupancy and furnishing not later than Nov. 15, 1898.'

"Believing the proposed action of the commissioners to be in violation of the law, and that if permitted would commit the Commonwealth to the expenditure of large sums of money, not contemplated in the act, the Attorney-General on Feb. 4, 1898, filed a bill in equity to restrain them."

The court decided for the commissioners, upon their statement that the building would be complete in the time specified and fitted for occupancy within the amount of the appropriation. The Governor says further:

"I now aver that the four members of the commission have utterly failed to carry out their sworn promise to the court, and that they have acted in flagrant disregard of the act of Assembly. The structure in which you are assembling to-day is unworthy of your honorable bodies and is a disgrace to the Commonwealth. In its present condition it is hardly fit for human habitation, much less the official abode of the representatives of the great Commonwealth. Although the act of Assembly requires that the building shall be 'made as nearly fireproof as possible,' the roof and most of the interior fittings are as combustible as possible."

Peace Jubilee.—Oct. 25-28 a peace jubilee was held in Philadelphia, including a naval review, a procession of vessels around the anchored ships of war, the "Columbia," the "Texas," the "Gloucester," and the "Winslow," an army review and a civic parade in which 25,000 men marched, a dinner and a reception. The President and many of the Cabinet officers and army officers were present. On Oct. 28 the old Independence Hall was rededicated.

Bank Failures.—Several disastrous bank failures took place during the year. The People's Bank of Philadelphia closed its doors March 25. The Guarantors' Finance Company made an assignment about the same time, and the cashier of the People's Bank, John S. Hopkins, committed suicide March 24. The connection of the three events was shown when an examination revealed the fact that the cashier had loaned to the manager of the Finance Company sums still unpaid, aggregating, it was said, \$600,000, without the knowledge of the other officers and the directors of the bank, and that the securities for the loan were practically worthless.

Richard F. Loper, vice-president and general manager of the Guarantors' Finance Company, was placed under arrest March 28, charged with conspiracy to cheat and defraud the People's Bank.

The People's Bank was a depository for State and

city funds, and at the time of its failure had more than \$500,000 belonging to the State and more than \$50,000 of city funds. The liabilities of the bank were placed at \$1,559,843, and the assets \$529,803. The president, Mr. McManes, promised to make good the losses. In connection with the failure, United States Senator Matthew S. Quay, his son, Richard R. Quay, and Benjamin J. Haywood, ex-State Treasurer, were indicted, charged with conspiracy with John S. Hopkins to use unlawfully the money of the State on deposit in the People's Bank.

The Supreme Court near the close of the year granted a stay of proceedings, which had been denied in a lower court by Judge Finletter, who overruled the demurrers to the indictments. The Chief Justice refused a petition to have the trial removed from the Philadelphia courts.

The German National Bank of Pittsburg went into voluntary liquidation Oct. 19. It held a large amount of stock of the Pittsburg Pure Beer Brewing Company, as it seems, which received a charter Aug. 31, 1897, with a capital stock of \$1,000; but the next day the stockholders increased the capital stock to \$1,000,000. It was alleged that this stock was loaned illegally, before the State department was notified and the papers approved by the Secretary or his deputy.

Gideon W. Marsh, president of the Keystone National Bank, which failed in March, 1891, returned to the city Nov. 3, after being a fugitive seven years, and gave himself up. William H. Wanamaker, who had given bonds for \$20,000 for Marsh's appearance in court, was obliged to forfeit the bail. He pleaded guilty to the indictments against him. He informed the court that his predecessor had left a deficiency of more than \$1,000,000; that he had erred in covering this, but that he never had profited one dollar through the bank's losses. He was sentenced to imprisonment twelve years and three months and to pay a fine of \$500.

William Steele, formerly cashier of the Chestnut Street National Bank, which failed in 1897 (see "Annual Cyclopædia" for 1897, page 661), was convicted in December on a charge of making false reports of the condition of the bank and aiding its president in misapplying its funds with intent to injure and defraud. The president, William M. Singerly, died suddenly Feb. 27, 1898, not long after the failure. The evidence in the trial of this case showed that Mr. Singerly, as president of the bank, without the knowledge of the directors, applied \$800,000 of the bank's money to his own use—\$300,000 more than the entire capital—and that he was enabled to do so by the assistance of the cashier, who issued false reports to cover the transactions.

State Laws in Court.—The law taxing alien labor, passed in 1897, providing that employers shall pay three cents a day to the State from the wages of aliens, was declared unconstitutional by the Supreme Court, because opposed to the provision of the national Constitution declaring that no State shall deny the equal protection of the laws to all within its jurisdiction.

The law prohibiting the manufacture and sale of oleomargarine and other imitations of dairy products was declared void by the United States Supreme Court, in so far as it interferes with the sale of original packages, which comes under the interstate commerce law. The Pure-Food Department has gone on with prosecutions in cases not coming under the Federal law.

In a case in Philadelphia in which the ground was taken that the liquor license law was unconstitutional, the Superior Court affirmed the validity of the law.

Political.—State officers were chosen Nov. 8; also members of Congress and a State Legislature (with the exception of half the Senate), which will have the choice of a United States Senator to succeed Matthew S. Quay.

The People's party held its convention at Williamsport, April 27, and made the following nominations: For Governor, Dr. Silas C. Swallow; Secretary of Internal Affairs, T. P. Rynder; Member of Congress, William H. Berry.

Dr. Swallow, who as Prohibition candidate for the office of State Treasurer in 1897 received nearly 119,000 votes, was afterward made the candidate for the Governorship by the Prohibition, Liberty, and Honest Government parties.

The Republican State Convention met in Harrisburg, June 2. There was a bitter contest between the Quay and the anti-Quay forces, the latter led by John Wanamaker, who had been a candidate for the nomination for Governor, but withdrew his name, leaving the contest between W. A. Stone, of Allegheny, the Quay candidate, and C. W. Stone, of Warren, anti-Quay. W. A. Stone won by a vote of 198 to 184. A proposition to make the nomination unanimous was voted down. The resolutions were mainly upon national affairs. Demand was made that Congress "make adequate provision for the construction of a water way between the slack-water navigation of the Ohio and its tributaries and the Great Lakes" and "continue the appropriation for the improvement of Delaware river until this channel shall be of sufficient depth and width to receive the largest battle ships and the biggest vessels of our merchant marine into the port of Philadelphia."

Gratitude was expressed to the representatives of the State in Congress for their efforts in securing such appropriations from the National Government as will insure the final completion of the improvements upon the Ohio, the Allegheny, and the Monongahela rivers, so that free slack-water navigation will be secured to the people of that great manufacturing and industrial region.

The State administration was approved, and good-roads legislation recommended.

The ticket was: For Governor, W. A. Stone; Lieutenant Governor, J. P. S. Gobin; Secretary of Internal Affairs, James W. Latta; Congress at Large, Galusha A. Grow and Samuel A. Davenport; Superior Court Judge, William Porter.

The Democratic Convention met in Altoona, June 29. A strong effort was made to unite the party upon Judge James G. Gordon, a gold-standard Democrat, as the candidate for Governor. James M. Guffey was also mentioned as a candidate. He had been appointed early in the year to succeed W. F. Harry as the representative of the State on the National Democratic Committee, the charge having been made that Mr. Harry was no longer in accord with his party. Mr. Guffey before the convention threw his strength to George A. Jenks. He led the free-silver forces in the convention, which proved to be dominant. Notwithstanding this fact, an effort to insert a plank reaffirming the Chicago platform was defeated, the controlling influence in the convention preferring that the platform should relate entirely to State issues.

The platform said, regarding the Republican party:

"It promised, in most solemn declaration, reform in legislation and the betterment of municipal government, and it has not only violated these promises, but it endeavored to perpetuate by most obnoxious statutes the power of municipal rings and combinations of corrupt politicians to pass laws for the enrichment of special interests, and it has, through the system of bossism, to which it has complacently sub-

mitted in the past, elevated these self-constituted leaders to the highest positions of political honor and public trust within its power to confer.

"It has not only needlessly multiplied offices to make place for party hacks and the subservient tools of party leaders, thereby greatly enlarging the public expenditures and made increased taxation necessary to pay new salaries, but has without just cause recklessly increased the salaries of public officials in all departments of the State government, and so depleted the public funds that the public charities of the State have been robbed of their necessary appropriations.

"It has not only tolerated the unjust withholding of the public moneys appropriated to the common school and public charities, that favorites of the treasury might be enriched and the funds for corrupting the elections might be enlarged, but its recognized leaders have endeavored to thwart and defeat all legislation and every movement looking to a correction of these abuses.

"For the purpose of maintaining large balances in the State treasury and to use them for corrupt political purposes it has withheld millions of dollars of personal property tax from the counties which were entitled to the prompt return of it.

"It has created a building commission for the erection of a State Capitol whose manifest purpose is to disregard the plain mandate creating it, to perpetuate for an unnecessary length of time its unfortunate existence, to benefit the favorite contractors of some political boss, the fruit of whose actions will be a large increase of the State indebtedness."

Further, the resolutions declared that the Democratic party, if intrusted with the administration of the affairs of the State, would abolish needless offices, and reduce excessive salaries, simplify the ballot law, and pass laws prohibiting trusts and combinations inimical to free competition and individual enterprise; and that the statute regulating the administration of the State treasury should be fearlessly and faithfully enforced, the moneys appropriated to public schools and public charities should not be withheld, and those due the counties should be properly paid to them; "equal and exact justice should be meted out to citizens, with favoritism for no persons or interests; and no laws prejudicial to the interest of the States, cities, and municipalities" should be passed.

The ticket follows: For Governor, George A. Jenks; Lieutenant Governor, William H. Sowden; Secretary of Internal Affairs, P. C. Delacey; Congress at Large, Jere N. Weiler, F. P. Iams; Superior Court Judges, William Trickett and C. M. Bower. The vote on the nomination for Governor stood: Jenks, 305; Gordon, 116; A. H. Coffroth, 2; J. Henry Cochran, 1.

The canvass was very animated, and serious charges of bribery, "selling out," and secret deals were made, besides charges of misappropriation of public funds against past State administrations. Mr. Wanamaker, Mr. Jenks, and Dr. Swallow made speeches arraigning officials for their conduct of State affairs. The Republican candidate for the office of Governor declined a challenge from Dr. Swallow to a joint discussion of the issues of the campaign. Single-Plank Clubs were organized in the various counties by the Honest Government managers, having for their motto, "Thou shalt not steal."

The election resulted in the victory of the Republican ticket. The vote for Governor stood: Stone, Republican, 476,206; Jenks, Democrat, 358,300; Swallow, Honest Government, etc., 182,981; Barnes, Socialist-Labor, 4,278.

The Legislature for 1899 will have on joint ballot 164 Republicans, 84 Democrats, and 6 Fusionists.

After the election Mr. Quay offered a reward of \$10,000 for information leading to the conviction of any one bribing, or attempting to bribe, a member of the Legislature during the senatorial contest; and Mr. Wanamaker offered \$20,000 for information securing the conviction of any one giving, offering, or taking bribes.

PERSIA, an absolute monarchy in Asia. Muzafferaddin, born March 25, 1853, succeeded his father, Nasreddin, as Shah in Shah, or Emperor, on May 1, 1896. The Valiahd, or heir apparent, is Mohammed Ali Mirza, born in 1872.

Area and Population.—The area is about 628,000 square miles, with a population estimated at 8,904,000, of whom 8,000,000 are Shiites, 800,000 Sunnites, 45,000 Armenian and 25,000 Nestorian Christians, 25,000 Jews, and 9,000 Guebres. The European residents do not exceed 800.

Finances.—Every village and district is required to pay in kind or cash a collective tax, the amount of which is fixed by the assessor from time to time. In this way about 82 per cent. of the revenue is raised, the burden falling upon the laboring classes. Customs supply 15 per cent., and the post office and mining and other concessions 3 per cent. A foreign loan of £500,000 was raised in 1892 to indemnify the tobacco company for a canceled concession. The expenditures are chiefly for the army, pensions, the court, allowances to princes, general and local administration, and education. The total revenue was estimated for 1898 at £1,470,000. The army numbers 24,500 men, while 53,520 trained and untrained men are liable to be called into the service. There are three armed steamers.

Commerce and Production.—The staple agricultural products are wheat, barley, and rice. About 606,100 pounds of silk are produced annually in northern Persia, two thirds of which is exported. The export of opium is estimated at 13,000 cases, and the production is increasing, the Persian drug being in demand both for medicinal purposes in Europe and for smoking in China. The annual export of tobacco is over 12,000,000 pounds; of cotton, 9,934,400 pounds; of wool, 7,714,000 pounds. The carpets exported each year are worth over \$700,000. Dates are grown in the valleys and plains from 50 to 150 miles inland from the Persian Gulf. The production is 500,000 hundredweight a year, half of which is exported to India, Europe, America, and Africa. The dates consumed in Persia are not all used as food. Large quantities are manufactured into syrups, spirits, and vinegar. Other exports are pearls, turquoises, shells, and woven stuffs. The total value of the foreign trade was estimated for 1897 at \$37,500,000.

The Political Situation.—Political and economic conditions have grown worse since the death of Nasreddin. In March, 1898, the province of Kirman was in rebellion. The people of southern Persia have for a long time been smuggling in Martini rifles and ammunition. In February, Abdul Kasim Khan, a friend of the English, was made Minister of Finance, but in June the Grand Vizier, Amin ed Dauleh, resigned, and the Minister of Foreign Affairs, Mushir ed Dauleh, organized a new administration. Bread riots occurred at Tabriz and other places in the summer. Officials and merchants who had bought up the grain had their houses destroyed and their granaries plundered. Feuds occurred between the followers of rival priests. The British sought in the anarchical state of the country to strengthen their political position in southern Persia. In connection with a frontier survey a military force was massed on the borders of British Baluchistan and the tribes were brought into subjection. In some places the British troops crossed over into Persian territory. The British

Government had promoted the negotiation of a loan of £1,250,000 which a number of English banks contracted to make to the government of the Shah on the security of the customs revenue of southern Persia. The Russian Government forbade the Persian Government to conclude the loan, offering to advance a larger sum on the security of the customs of the whole of Persia.

PERU, a republic in South America. The legislative power is vested in the Congress, consisting of a Senate of 48 members, elected by departments, and a House of Representatives containing 108 members, elected by provinces, members of both houses for the term of six years, a third being renewed every two years. The President is elected for four years. Nicolas de Pierola was elected President in 1895 for the term ending Sept. 10, 1899. The Council of Ministers in the beginning of 1898 was composed as follows: President of the Council and Minister of Justice, Worship, Public Instruction, and Public Charity, Dr. Manuel P. Olacoea; Minister of Foreign Affairs, E. de la Riva Agüero; Minister of the Interior, Lorenzo Arrieta; Minister of Finance and Commerce, S. Rey; Minister of War and Marine, Col. J. R. de La Puente; Minister of Fomento, M. I. Cuadros.

Area and Population.—The area of Peru is 463,747 square miles, not including the province of Tacna, area 8,685 square miles, occupied by Chili for twelve years under an agreement that the population should decide in 1894 whether they should continue to live under the Chilian flag or return to Peru. The population of Peru is estimated at 2,980,000, of whom 462,000 are of pure Spanish descent, 600,000 of mixed race, 1,500,000 civilized Indians, 350,000 uncivilized Indians, 18,000 European settlers, and 50,000 Chinese and other Asiatics.

Commerce and Production.—The exports of cotton in 1895 were about 12,000,000 pounds. Of coffee 2,800,000 pounds are exported annually. The Peruvian Corporation, having obtained a concession of 5,000,000 acres in central Peru, is establishing communications by way of the Amazon and the Ucayali with the coffee district of Chanchamayo and the valley of the Perené. The sugar production of 1897 was 65,000 tons. Other cultivated products are cacao, rice, tobacco, corn, wine, and spirits. The hair of the alpaca and vicuña is exported. India rubber, cinchona and other medicinal plants, and dyes are obtained from the forests. The export of coca leaves is important, amounting to 380,000 kilogrammes a year, besides which 3,407 kilogrammes of cocaine were exported in 1895. The mineral claims recorded in 1897 reached 3,475, including silver, gold, lead, zinc, quicksilver, coal, salt, sulphur, and petroleum. The silver production in 1896 was 3,300,000 ounces. The oil fields are extensive, but, owing to the fitful flow and inferior quality, the wells have not proved profitable.

Navigation.—During 1896 there were entered at the port of Callao 525 vessels above 50 tons, of 592,783 tons, and at Trujillo 284 vessels, of 446,520 tons.

The merchant marine in 1896 numbered 36 vessels above 50 tons, having an aggregate tonnage of 9,953, and 96 smaller vessels, of 1,246 tons.

Communications.—Of 924 miles of railroads 800 belong to the state. The total cost of construction has been £36,000,000 sterling.

The Government telegraph lines had a total length of 1,491 miles in 1896, during which year 88,326 messages were transmitted.

Politics.—Owing to dissensions among its members, the Cabinet was reorganized on May 17, 1898, as follows: Prime Minister and Minister of Justice, Señor Loayza; Minister of War, M. I. Cuadros; Minister of Foreign Affairs, Señor Porras; Minister

of the Interior, J. R. de la Puente; Minister of Finance and Commerce, I. Rey; Minister of Public Works, Señor Butler. A Government commission, appointed in January to discuss the basis of an arrangement of outstanding differences with the Peruvian Corporation, consisting of Señor Candamo, Dr. Arenas, and Carlos Pierola, could come to no agreement with that company, which had a concession of all the railroads, guano deposits, lands, and mines for sixty-six years. After the opening of the regular session of Congress on July 28, President Pierola proposed a liquidation of accounts between the Government and the British company. The proceeds of the salt monopoly, amounting to 734,000 soles, enabled the Government to pay the first installment of 1,000,000 soles for the ransom of the provinces of Tacna and Arica, which Chili had agreed to restore to Peru. A law was enacted providing for the establishment of a gold basis and the coinage of Peruvian sovereigns. The importation of silver coins has been prohibited since May 10, 1897.

PHILIPPINE ISLANDS, an archipelago in the western Pacific Ocean, formerly a colony of Spain; occupied by the naval and military forces of the United States in June and July, 1898, and ceded to the United States by the treaty of peace concluded with Spain.

Area and Population.—The islands extend from 5° 24' of north latitude up to 19° 38' and from 117° 21' to 126° 8' of east longitude. There are more than 1,400 islands, but all except a few are barren volcanic rocks. The total area is estimated at 115,528 square miles, and the population is variously estimated at 8,000,000. Of the main islands the most important is Luzon, with an area of 57,505 square miles and nearly 5,000,000 inhabitants. Panay, with 4,742 square miles, has about 1,000,000 inhabitants. Mindanao, which is 38,000 square miles in extent, has scarcely 200,000. Another of the larger islands is Palawan. Of less extent, but more populous, are Leyte, Mindoro, Samar, Negros, Cebu, Masbate, and Bohol. Of the Negritos, or Papous, the original inhabitants of the islands, only a few thousands remain, scattered in bands through the mountains and forests. The Malays, who conquered them, form the bulk of the population, mingled with Chinese, who settled on the islands for trading and industrial purposes even before the Spanish conquest in the sixteenth century, and with the Spanish immigrants. The Spanish residents, exclusive of the military, do not exceed 8,000. Including the Chinese, there are not more than 80,000 people of unmixed foreign blood in all the islands. The Malay Indians are divided into three main branches, the Bisayans, the Itocans, and the Tagals. In some of the numerous tribes into which they are subdivided is a large infusion of Japanese and Chinese blood, in others Papuan and Polynesian. The Manthras are a cross between the Malays and the Negritos. There are over 200 different tribes living alongside each other, severed only by race distinctions and customs. The people are industrious agriculturists and skillful sailors. The Chinese mestizos, sprung from the intermarriage of Chinese with the native women, number several hundred thousand in the island of Luzon, and these were the most active element in the rebellion against Spanish rule. The Spanish mestizos are less numerous. Before the Spanish conquest the Malays were Mohammedans. Forcible conversion to Christianity has left not more than 500,000 adherents of the ancient faith.

Manila, the capital, has about 250,000 inhabitants. Other cities are Laoag with 30,642, Lipa with 43,408, Banang with 35,598, Batangas with 35,587, Leyte, and Cavité. The Augustinian, Franciscan, and Dominican orders furnish the priests, who

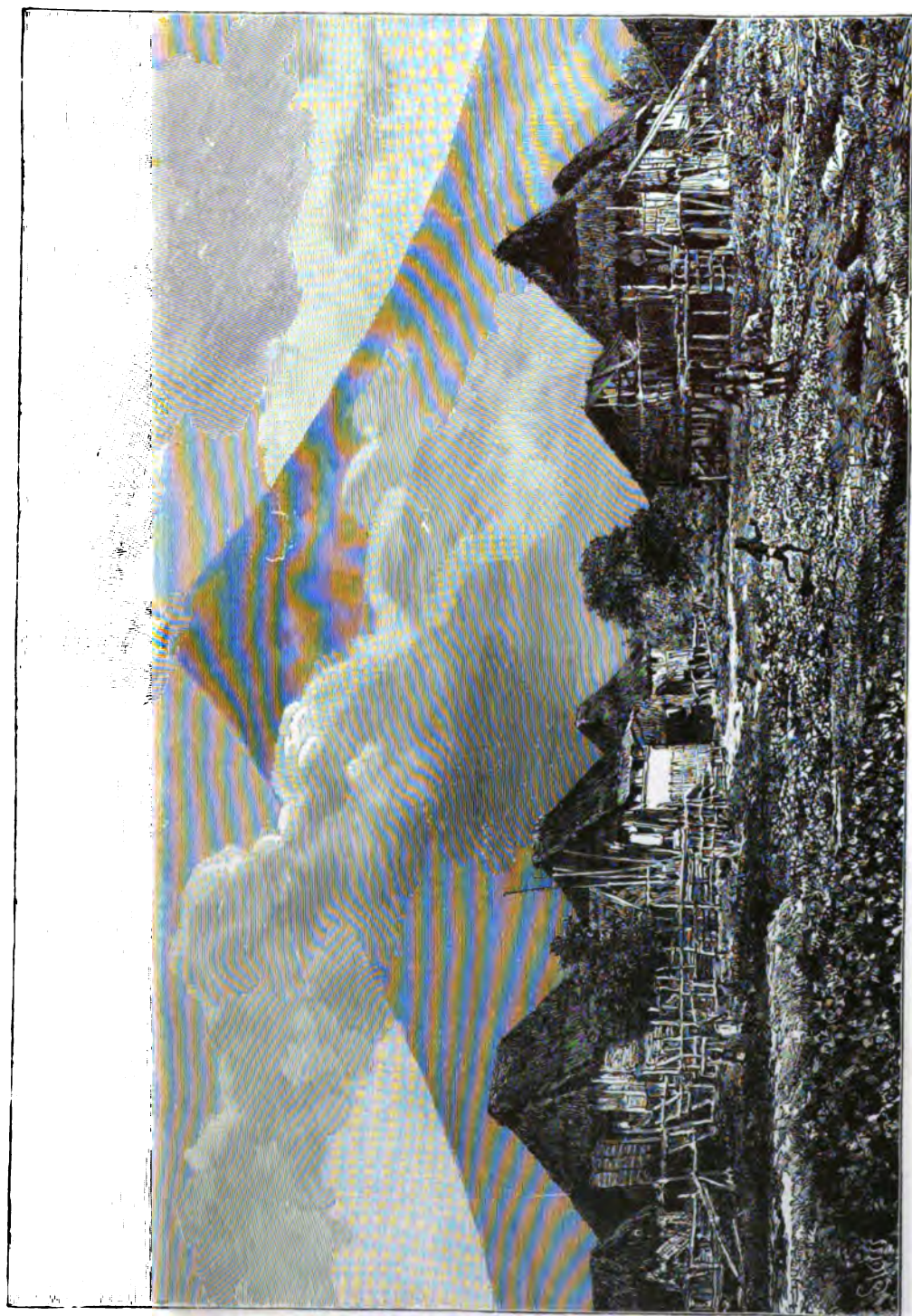
were the real rulers of the country until the natives rebelled against their authority. Their foundations comprise nearly a third of the cultivated land in the Philippines. Missionary priests of the Jesuit order, not powerful and wealthy like the others, living among the remote and savage tribes and devoting themselves to Christianizing and civilizing these, never have provoked the hostility of the natives.

Finance.—The Spaniards have collected a revenue of \$3,000,000 a year. In addition to customs duties, which almost shut out all manufactures and other imports except those of Spain, the people were taxed in every possible way. On cotton goods and on petroleum the duty was equal to 100 per cent. There were taxes on stores and shops, on factories and professions, on horses and carriages, on houses, on every animal slaughtered, and each person according to his wealth and station had to pay a personal tax, ranging up to \$25 a year. The Chinese paid a special tax. Even from cockfights a considerable revenue was obtained. Tobacco, hemp, and other products were made to pay duties on exportation. With a revenue of \$2,715,980 in 1895, the estimated expenditure was \$2,656,026 sterling.

There are 720 miles of telegraph in the islands and 70 miles of railroad.

Commerce and Industry.—Besides agriculture and fishing, the native Indians practice some fine branches of industry, such as the manufacture of ornamental mats and the weaving of fabrics from cotton, pure or mixed, pineapple fiber, abaca filaments, and other materials, the making of cigar cases, etc. The cloths called pinas are woven from the fibers of the pineapple leaf and exquisitely embroidered. The industries are mostly in the hands of the Chinese. In dyeing and in basket and metal work the natives are skillful. Great numbers are employed on an industrial scale in the Government cigar factories, in the making of cordage from abaca fiber, and in the preparation of hemp and the manufacture of sugar and copra. Sugar, hemp, tobacco, and copra are the chief exports, and rice, flour, wine, cotton cloth, clothing, coal, and petroleum the largest imports. Other articles are linens, iron, machinery, hardware, woollens, earthenware, and umbrellas. Rice is grown on the islands, and the cultivation can be indefinitely increased. Millet, maize, and sago are other food products, besides fruit in unequalled abundance and variety. Indigo and coffee are successfully cultivated. Dyewoods and gums abound on all the islands. The carabao, or water buffalo, is domesticated for husbandry, and hardy and active horses of a small breed are common. Pigs, sheep, goats, and poultry are reared. Edible swallows' nests are gathered in the chalk cliffs. The rivers and lagoons abound in fish. The soil is wonderfully fertile. A vast supply of lignite underlies some of the islands, but is as yet untouched. Other minerals are gold, copper, iron, quicksilver, lead, sulphur, and saltpetre. From the sea are obtained mother-of-pearl, coral, tortoise shell, and amber. The woods found in the forests include ebony, logwood, ironwood, sapanwood, and cedar. The orange, mango, tamarind, guava, and coconut palm grow everywhere. Some of the minor cultivated products are cotton, vanilla, cassia, ginger, pepper, cacao, pineapples, wheat, maize, cinnamon, and betel.

The small commerce is carried on by Chinese, while the export and import trade is in the hands of English, Germans, and Americans. The port of Manila has a trade of \$36,000,000 a year. Its exports include \$8,000,000 of hemp, \$6,000,000 of sugar, \$2,000,000 of tobacco, \$2,500,000 of gold, and \$1,250,000 of coffee. Besides these staples the



MOUNT MAYON, PHILIPPINE ISLANDS.

islands export copra, indigo, gold dust, birds' nests, coffee, sapanwood, mats, hats, hides, trepang, gum almaciga, mother-of-pearl, tortoise shell, cigars, and cotton. In spite of the high protective duties about 34 per cent. of the imports of late years have come from Great Britain, 21 per cent. from China and Hong-Kong, and only 13 per cent. from Spain. Of the exports, tobacco and cigars go to Europe and Asia while most of the hemp has been taken by the United States. The Manila hemp is superior to that grown in any other part of the world. The sugar, which is of the lowest quality, also finds its way to the United States, as well as some of the other products, but little has been imported hitherto from America except kerosene oil. Before the American tariff was placed upon raw sugar nearly all the sugar went to San Francisco. In 1897 Great Britain took more sugar and Japan nearly as much as the United States. Of the hemp Great Britain took four sevenths and the United States nearly all the rest. Of the tobacco 75 per cent. went to Spain, 20 per cent. to Great Britain. France received nine tenths of the copra product and Great Britain the remainder.

The following table gives the trade of the Philippine Islands with different countries according to the latest reports, namely, for 1895 in the case of Spain; 1896 for France, Germany, Belgium, the Straits Settlements, and Victoria; and 1897 for the others:

COUNTRIES.	Imports.	Exports.
Great Britain.....	\$2,063,598	\$6,223,426
France	359,796	1,990,297
Germany	774,028	223,720
Belgium	45,660	272,240
Spain	4,973,589	4,819,344
Japan	92,828	1,332,300
China	97,717	56,187
India	80,156	7,755
Straits Settlements.....	236,001	274,180
New South Wales	178,858	119,550
Victoria	178,370	180
United States.....	94,597	4,383,740
Total.....	\$9,174,093	\$19,702,819

The trade in these years was much smaller than the average, owing to the internal disturbances. From Great Britain in 1893 the imports amounted to \$3,500,000 and the exports of Philippine produce to Great Britain were \$10,607,000 in value; from France the imports have fallen from \$2,000,000, while the exports to France have trebled. Chinese imports have also declined, but the exports to China are twice as much as in 1893.

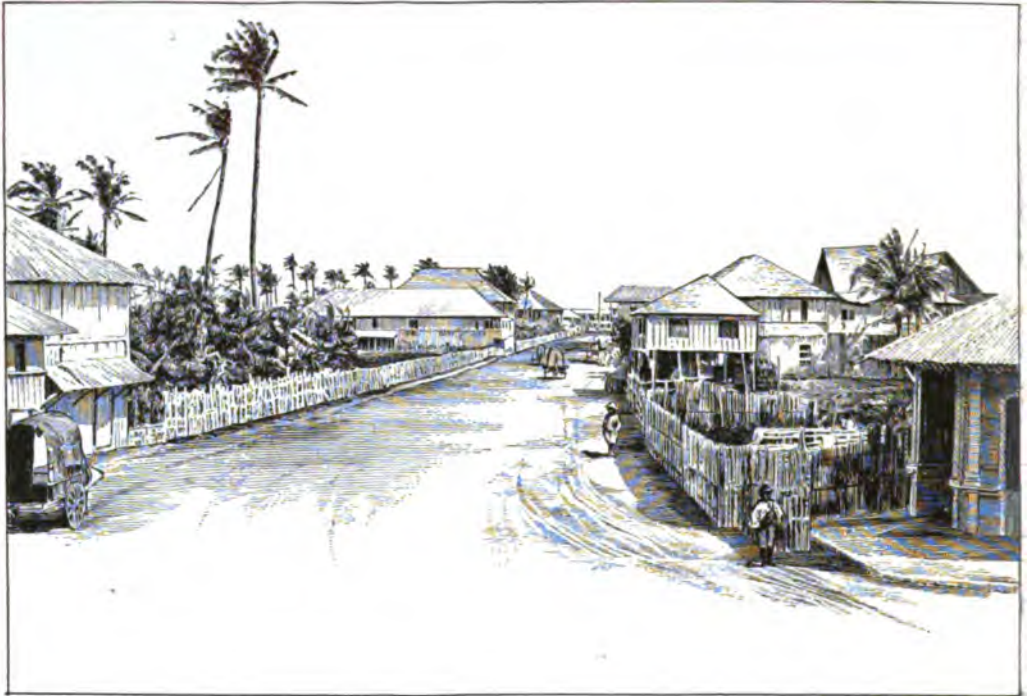
Conflict between the Americans and the Filipinos.—Emilio Aguinaldo, the young leader of the Philippine insurgents, having proclaimed himself first Dictator and then President of the Philippine Republic, sought on every occasion to obtain from the American commanders an assurance that the United States forces would evacuate the islands after having expelled the Spaniards. (See UNITED STATES.) Gen. Anderson, in reply to his inquiry as to what the Americans intended to do, told him that the United States had never been a colonizing power. Gen. Merritt he could not draw into a discussion of the intentions of the United States, nor extract from him any recognition of his provisional Government. From the first arrival of the American troops he prevented their getting transportation or labor from the natives, because of his failure to obtain official recognition; and hence friction arose from the beginning. Aguinaldo proclaimed a provisional Government of the Philippine Republic at Bacoor in June. The people in the provinces north of Manila rallied in rebellion against the Spaniards, and Aguinaldo intrenched his forces in a circle around the outskirts

of Manila. One of the first points seized was the waterworks near San Juan del Monte. When the first American troops arrived, they encamped in the rear of the Philippine line on the shore of the bay. The Philippine commander was induced after some negotiation to withdraw his forces at this point and allow the Americans to occupy the trenches. Aguinaldo—already jealous of the American occupation before Manila was captured without his co-operation and protected by the American troops from the Filipinos—had removed his Government to Malolos, commanding the railroad to Dagupan. After the surrender of the Spaniards in August he turned the water off, but was induced to let it on again, without compliance being given to his demands. Gen. Merritt held no official intercourse with the insurgent Government. When there was danger of the sacking of Manila by the impatient Filipinos, or a collision with the American troops, who still surrounded the city, Gen. Otis in September insisted upon their evacuating the suburbs. Reluctantly and surlily they complied with his demands, taking up positions farther back and occupying some of the Spanish blockhouses. They were massed, especially, near Calococan and the reservoir at Santa Mesa and San Juan. To avert complications, the United States forces took up positions on an interior line facing the Filipinos. The waterworks were strongly guarded, and there the first collision between the Americans and Aguinaldo's troops took place. The forces of Aguinaldo, which grew to an army of 25,000 or more, were drawn from the five or six provinces north of Manila, but the northern provinces of Luzon were under the control of another leader, whose party was not hostile to the Church and did not plunder monasteries, like the followers of Aguinaldo. In the island of Panay the emissaries of the latter organized an insurrection before the arrival of the United States expedition, and the insurgents occupied Iloilo and held it in defiance of the American troops until they were expelled in February.

Major-Gen. Otis, who was appointed to the command of the military forces of the United States, after the signature of the treaty of peace with Spain, issued a proclamation under the President's instructions announcing the cession of the islands to the United States, and the extension of the military Government established in Manila to the whole of the ceded territory. The Americans came, not as invaders or conquerors but as friends, to protect the natives in their homes and employments, in their personal and religious rights; and all persons who by active aid or honest submission co-operated with the Government of the United States to give effect to these beneficent purposes were promised the reward of its support and protection; all others would be brought within its lawful rule, with firmness but without severity. The paramount aim of the military Administration was to win the confidence, respect, and affection of the inhabitants by proving that the mission of the United States was one of benevolent assimilation, substituting the mild sway of justice and right for arbitrary rule. Aguinaldo reconstructed his Cabinet, selecting men determined on resistance to American domination—Mabini as Minister of Foreign Affairs and Premier, Teodoro Sandica as Minister of the Interior, and Gregorico Gonzaga as Minister of Public Works, while Gen. Baldomero Aguinaldo remained Minister of War, and Gen. Trias Minister of Finance. Gen. Rios, late Spanish commandant at Iloilo, endeavored to obtain the release of 11,000 Spanish troops held as prisoners by the insurgents, and 1,900 civilians, including provincial governors and other officials, besides priests and monks and many women. His mission proving fruitless, Gen.

Otis made a demand for their surrender, but with no better success. Before the ratification of the treaty of peace by the United States Senate, Agoncillo, late Vice-President in the provisional Government, went to Washington to endeavor to plead the cause of Philippine independence. President McKinley declined to give him an audience as the representative of a Philippine national Government. He sent home dispatches urging resistance, and when they were made public he fled to Canada. A commission appointed by President McKinley to go to the Philippines, study the situation, and advise him what should be the policy of the United States regarding the islands, consisted of Rear-Admiral George Dewey, Major-Gen. Elwell S. Otis, Prof. J. G. Schurman, Col. Charles Denby, and Brig.-Gen. Charles B. Whittier.

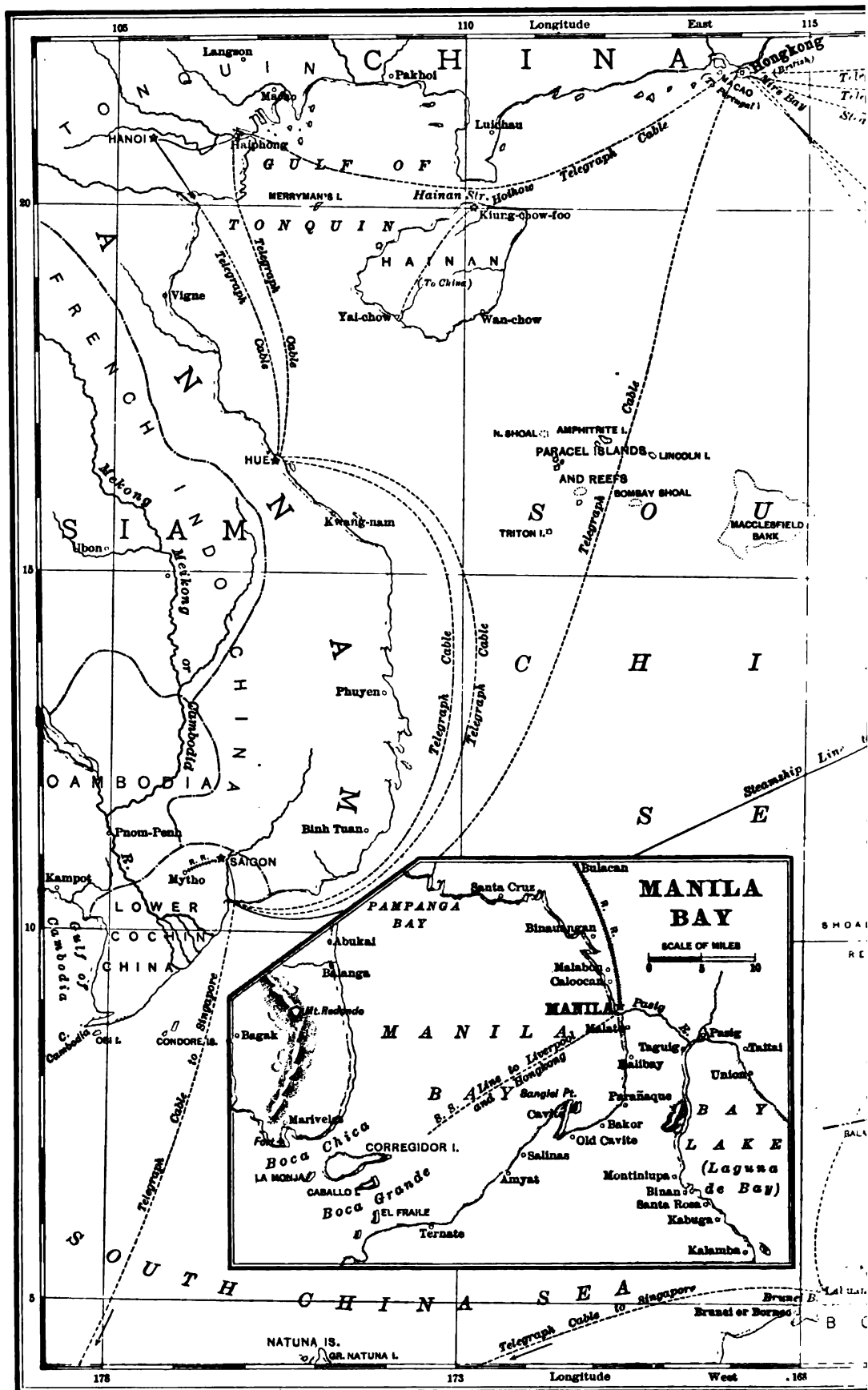
their own loss being 48 killed and 118 injured. Col. Duboce and his regiment of Californians distinguished themselves by their attack on the stronghold at Paco; and Idaho, Wyoming, Tennessee, and Washington, as well as California volunteers, by charging across the rice fields in the face of a hot fusillade. The Filipinos who confronted Gen. Anderson's division fought more stubbornly than those who attacked Gen. MacArthur's command in the north. The Fourteenth Regulars fought brilliantly against great odds, until Col. Duboce brought the reserves to their relief. On Feb. 6 the Americans resumed their advance in order to gain possession of the waterworks. A native uprising in Manila was attempted in the evening, but was quickly checked by the watchful authorities. The Colorado, South Dakota, and Nebraska men charged the

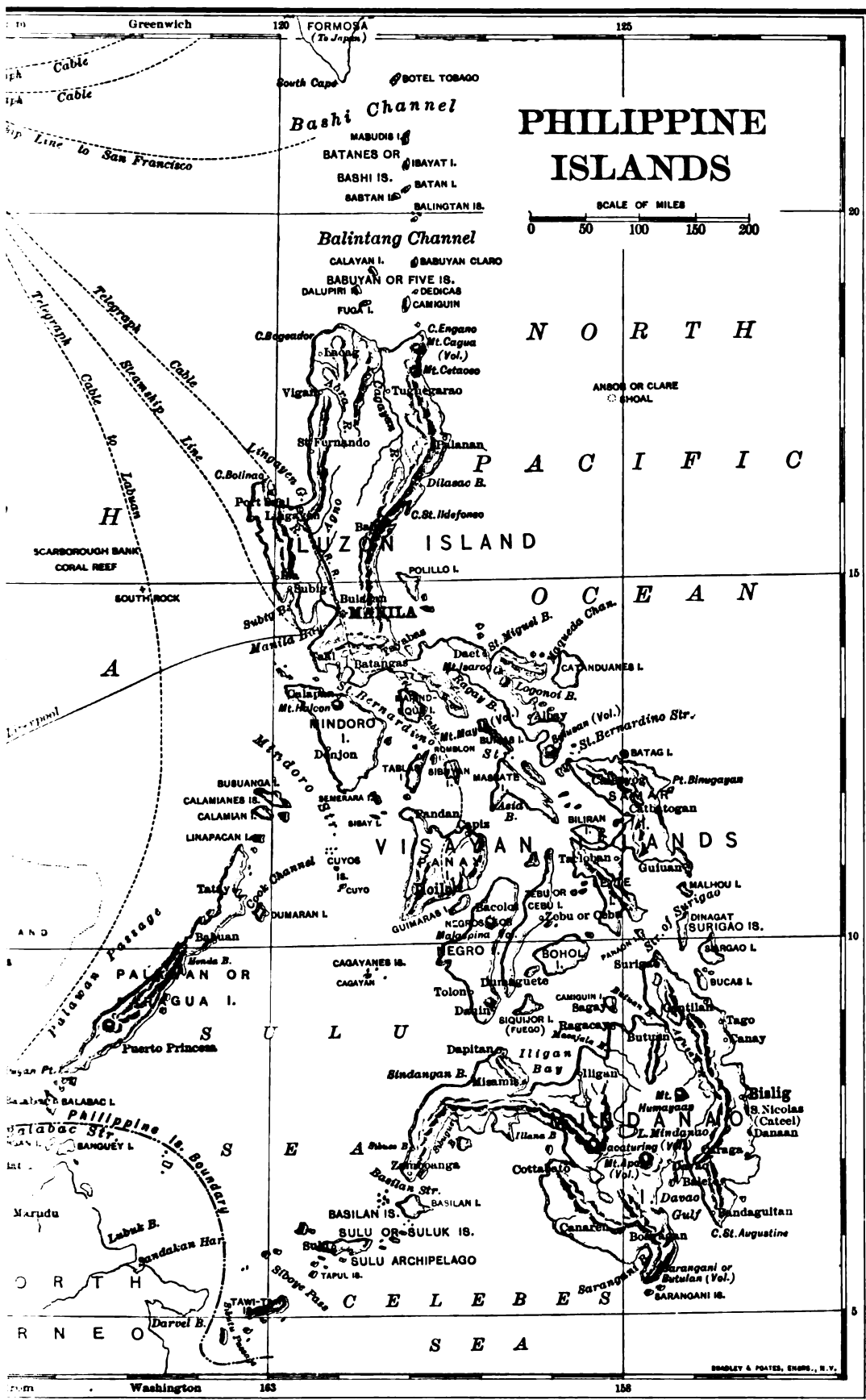


A STREET IN ILOILO.

Hostilities between Aguinaldo's army and the American forces began with an attack on the outposts around Manila on Feb. 4. The entire Filipino line north of the Pasig advanced to the attack, but was held in check until re-enforcements arrived. The battle began near Santa Mesa where the Nebraska troops fired on a body of Filipinos as it advanced into the neutral zone. The Nebraska, Colorado, and Tennessee volunteers on one flank, supported by the Utah and 30 United States batteries, and on the other the Montana, South Dakota, and Pennsylvania regiments, charged up the steep San Juan hill in the face of a terrific fire. The assault was renewed in the night, and as soon as the morning broke the Americans advanced, while the "Charleston" and "Concord" shelled the Filipino trenches at Caloocan, and the "Monadnock" the positions at Paco, Santa Mesa, Pandacan, and Santa Ana. Both sides fought vigorously at first; then the Filipinos gave way, and before the morning passed the Americans were in possession of all these villages; having driven the enemy back 10 miles and inflicted a loss of 1,900 killed and wounded,

blockhouses with a rush almost too daring and reckless to be soldierlike. The Filipinos made a stand behind intrenchments near Caloocan until they were routed by a gallant charge of the Kansas volunteers led by Col. Funston. The troops were so eager for the conflict that the sick left the hospitals to run to the front, and men from other regiments joined those on the firing line. The fighting was continued on Feb. 7 until the Filipinos were cleared from every point on the Pasig river. Aguinaldo, who had issued a proclamation on Feb. 4 declaring war, now asked Gen. Otis for a cessation of hostilities and a conference, but received no reply. The American line was stretched in a complete cordon for 22 miles round Manila. In so extended a position the army was not strong enough for aggressive tactics until re-enforcements arrived on transports. Nevertheless when Aguinaldo collected an army of 30,000 men in the neighborhood of Polo, and two of his commanders advanced down the river into the Tondo district, threatening the rear of Gen. MacArthur's division, Gen. Otis ordered on Feb. 10 an attack upon Caloocan, where 6,000 Fili-





pinos opposed Gen. Anderson's division. After a bombardment by the artillery and the "Monadnock" and "Charleston," the Kansas and Montana troops and the Third Artillery advanced swiftly, driving the insurgents from the woods and the strong earthworks, and carried the trenches at the point of the bayonet. The Filipinos, setting fire to the town, retreated in disorder. Half of these, posted in front of the American position, were put to flight, leaving 427 dead on the field.

Gen. Marcus P. Miller commanded the expedition that was sent to occupy Iloilo. This movement was made the ground of the original attack on the American lines by Aguinaldo, who in an interview with Gen. Otis warned him that if re-enforcements were sent to the Philippines or if the Americans attempted to seize Iloilo or any other posts or places he would begin hostilities. When Gen. Miller arrived at Iloilo he found the place in the possession of the insurgents, to whom the Spanish general had abandoned it. An army of 10,000 natives quickly gathered to defend the town. When he demanded the surrender of the port on Feb. 11 the natives began the attack, but soon desisted when the "Baltimore" and the gunboat "Petrel" began to bombard the town; and evacuated the place, burning the native quarter as they went away. The American force then landed and extinguished the flames. On Feb. 12 the troops occupied Jaro after breaking down the resistance of the native soldiery, which met them with a well-sustained fire of musketry. In Luzon the Americans repaired the Manila and Dagupan Railroad and used it for transport as far as Calocan; also the railroad leading to Malabon, which was now the advanced post of the Filipinos. These, after their wont, dug trenches opposite the American positions and fired upon the outposts nightly. The numbers fluctuated from day to day, many returning to their villages after a few days of active service, others continually resuming their places in the trenches. There were always enough to use all the rifles that Aguinaldo had supplied, and some even carried wooden guns to give a false idea of their strength. The American fleet could not prevent fresh arms and ammunition from being landed at different points on the coast. On Feb. 15 the California regiment, with some of the troops from Idaho and Washington and a battery of the Sixth Artillery, drove the Filipinos in the direction of Laguna de Bay, destroying the villages from which the natives had fired upon the outposts after raising a flag of truce. On Feb. 22 the adherents of Aguinaldo in Manila set fire to the city in many places, and shot at the firemen while they were extinguishing the flames. The native suburb of Tondo and the business district of Binondo were devastated. The intended uprising was frustrated by the prompt action of the military. After this the provost marshal carried on a strict search for arms, arrested knots of rebels when caught in secret meetings and prohibited natives from walking in the streets at night; and after the troops checked two or three attempts to attack the city and destroy property, from which the Filipinos themselves were the worst sufferers, a rising in Manila was no longer to be feared. Major-Gen. Henry W. Lawton arrived with the Fourth Infantry and a battalion of the Seventeenth on the transport "Grant," on March 10. On March 13 Gen. Wheaton's brigade, consisting of the Twentieth and Twenty-second Infantry, Washington and Oregon volunteers, a detachment of the Fourth Cavalry, and a battery of the Sixth Artillery, advanced from San Pedro and captured Guadeloupe with the assistance of a gunboat, which shelled the rebel positions on the Pasig river. A further advance to Pasig, Pateros, and Taguig, feebly resisted by the forces of Pio del

Pilar, cut the line of communication between the southern insurgents and Aguinaldo's forces in the north. Gunboats were improvised on the lake and small vessels of light draught were added to Admiral Dewey's fleet for the purpose of co-operating with the army in attacks upon rebel positions on the bay and the Marilao river.

The Visayan islands of Zebu, Negros, Mindoro, and Leyte had been seized, as well as Panay, by Tagal soldiers from Manila, well armed and trained, who came in the name of Aguinaldo and imposed an oppressive and extortionate government of force upon the peoples, incapable of resistance. When the "Boston" was sent from Iloilo to introduce American rule in Negros and Zebu, the change was gladly accepted by the population.

The battle ship "Oregon" arrived on March 18. The transport "Sherman" arrived on March 22. The re-enforcements from home brought Gen. Otis's total force up to 29,500 troops, of whom 24,000 were available for operations at Manila, the rest having been sent to garrison Iloilo, Zebu, and Negros. On March 25 Gen. MacArthur's division advanced upon Polo and Novaliches on the left and San Francisco del Monte and Mariquina on the right, clearing the insurgent trenches in front of the line north from the river to Calocan. The railroad was also secured, and Aguinaldo's picked troops were supposed to be hemmed in at Malabon and in the foot hills at Singalon. The natives held their trenches until the Americans charged on the double quick; then they broke and ran for the woods, losing more heavily than in any previous engagement. They adopted the American tactics of reserving their fire until the attacking force came within close range, and also fired lower than usual. Throughout the conflict they showed remarkable aptitude in observing and adopting the drill and tactics of the Americans. At the beginning of the engagement the brigades of Gen. Harrison Gray Otis and Gen. Hale advanced straight through the insurgent lines, cutting the enemy's forces in two. Then Gen. MacArthur's division was swung around to the left, driving the natives away on all sides. The intention was to close in on Polo from the north as well as the south. The brigade of Gen. Otis advanced on Novaliches and Polo from Laloma, while Gen. Hall cleared the country to the waterworks and Singalon, capturing San Francisco del Monte and Mariquina. The Montana regiment and the Third Artillery crossed the Talighan river to attack Polo from the southeast, while Gen. MacArthur moved along south of the river. Gen. Hall's brigade moved to Banlac, protecting Gen. Hale's right; and the Oregon regiment, with a part of the Utah battery, held the extreme left. Gen. Wheaton's brigade advanced late in the day, developing a strong opposition between Malabon and the Tuliahan river. The intrenchments nearest to Malabon were attacked fiercely by the insurgents and suffered from a cross fire. The Oregon regiment advanced almost to the confines of the town, and withstood the charges of the natives and their constant volleying until the Third Infantry came up, after which the enemy was compelled to yield and to retreat precipitately into Malabon. The attempt to surround the rebels massed at Polo failed, the latter withdrawing to Malolos after another fight on March 26. On March 27 their rear guard, pursued by Gen. Harrison Gray Otis, made a stand in strong intrenchments at Marilao, but fled in panic when the artillery drew into close range. When Polo was captured, with the rolling stock found there, the Americans were able to advance rapidly along the line of the railroad, and the Filipinos abandoned Malinta, Gycanyan, and Maycauyan. The barri-

acades erected along the railroad were admirably constructed, consisting of double rows of trenches running diagonally on both sides of the track, protected by thick earthworks topped with stones, provided with loopholes, and in some instances having sheet-iron roofs. These intrenchments were stoutly defended from front attacks, and were only taken by being successively enfiladed, whereupon the defenders disappeared into the woods, only to make a stand at the next line. South of Manila, the "Monadnock" bombarded Paranaque. The gunboats of light draught got near enough to shell Malabon, which was thereupon hastily evacuated. The town was left in ruins, and was not occupied by the Americans, who pushed on toward Malolos. Beyond Marilao Gen. MacArthur's troops, on March 27, encountered a body of Aguinaldo's choicest soldiers, who were sent down from Malolos to contest the advance of the Americans upon the rebel capital. There was a stubborn fight which was ended by a brilliant charge of the South Dakota regiment, putting the enemy to flight. The railroads were damaged as much as possible by the natives when they evacuated the country; not so much, however, that they could not be quickly repaired. Already supply trains were running to Marilao. The bridges over the rivers took a longer time to restore, but in a few days they were replaced. The gunboats entered the Bulacan river and did great execution in the battle near Marilao. The Filipinos left nothing but charred ruins in the towns that they abandoned. Such were the orders of Gen. Luna, their commander in chief. On March 28 Gen. MacArthur attacked Bulacan, which was defended by fresh troops from Malolos. While Gen. Otis's brigade captured this city, Gen. Hale on the right took Guirguinto. In three days the American army lay before Malolos. After a short bombardment of the trenches, the infantry advanced, the Nebraska and South Dakota troops flanking the position on the right, the Tenth Pennsylvania in the center, and the Twentieth Kansas and First Montana Infantry and the Third Artillery on the left. The enemy vacated the trenches after offering a slight resistance. It was found that the main Filipino army had retreated to Calumpit two days before, leaving a small rear guard to make a feint of opposition and to set fire to the town when the Americans made their appearance. The American army rested in the deserted Filipino capital before making any further advance. When a reconnoitering party appeared at Calumpit Aguinaldo retreated to Balinag. The total number of casualties in the encounters with the Filipinos from Feb. 4 to April 4 were 184 officers and men killed and 976 wounded.

PHYSICS, PROGRESS OF, IN 1898. Gravitation.—Richarz and Krigar-Menzel (Wiedemann's "Annalen," LXVI, 177) have finished their determination of the gravitation constant by means of the balance, on which they have been working since 1889. They find the constant to be

$$(6.685 \pm 0.011) \cdot 10^{-8} \frac{\text{cm.}^3}{\text{g. sec}^2}.$$

This result lies between those of Poynting and Boys, and is probably the best yet obtained.

The Ether.—Wien (*ibid.* July) notes that if the ether is immovable a thin plate possessing different radiating powers for heat rays on its two faces could put itself into motion by virtue of the difference of pressure on the two faces. It is possible, he thinks, that the ether is carried along by the earth, but not by bodies of small mass. (See also "Compressibility," under "Mechanics," below.)

Mechanics. Strength of Materials.—Faurie (Paris Academy of Sciences, Jan. 31) finds that test pieces of metal subjected to longitudinal stress un-

der certain conditions develop nodal points at equal distances apart. The effects are not produced by bending or torsion.

Compressibility.—Barus ("American Journal of Science," October), in experiments on the compressibility of colloids, finds that an aqueous solution of gelatin or albumen has a low compressibility, and that India rubber dissolved in ether has a high one. When the colloid was compressed by mercury the meniscus would occasionally give way and a small drop would be projected through the substance, the colloid probably liquefying in front and being solidified behind the moving drop. Prof. Barus applies this phenomenon to the problem of the motion of material bodies through a solid ether.

Deformation.—Charpy (Société Française de Physique) finds that the deformation produced in a metal by a given force depends on the time during which the force acts. This is most noticeable with lead and is still true of copper, though not in the ordinary conditions of experiment. In the use of copper cylinders to measure the force of a confined explosive by their deformation, however, this fact may interfere with the results. M. Charpy's experiments show that the deformation produced by a given charge is smaller the less the time of action. The results of measurements with such cylinders are thus too small and should be multiplied by a coefficient somewhere between 1.1 and 1.2.

Elasticity.—Thurston ("Science," April 15), in an investigation of the relations of stress to strain in the case of India rubber, finds that in the early part of the strain it behaves precisely like other elastic substances; then a reversed curve is described and the rubber stiffens greatly, offering constantly increasing resistance until at last rupture takes place without yielding by inelastic deformation at any point of its course. The fracture is sharp and sudden and the break is smooth and at right angles to the line of pull. The highest load measured was 810 pounds per square inch. The author notes that Prof. R. A. Fessenden's experiments on rubber and other highly elastic substances indicate the existence in them of two components, a hornlike substance and a jellylike matter, in its pores.

Torsion.—Peddie (Edinburgh Royal Society, June 20) finds that calling the range of oscillation of a twisted wire y and the number of oscillations x , these are related in a manner shown by the equation $y^n (x + a) = b$, where n , a , b are constant for any one experiment. He finds (1) that when the wire is greatly fatigued n and b are independent of the initial range, n becoming unity when the fatigue is very great; (2) that when n is unity b is absolutely constant; (3) that the period of oscillation does not affect the results; and (4) that the time of inward oscillation over a given range exceeds that of outward oscillation. He adopts a simple molecular explanation of these facts.

Oscillation.—Schlichter ("Nature," Feb. 8) compounds pendulum vibrations in three directions at right angles by attaching a tiny electric lamp to the bob of a Blackburn pendulum that vibrates in a horizontal plane and photographing its path by a stereoscopic camera attached to a pendulum that swings about a horizontal axis. The result is viewed through a stereoscope.

Liquids. Hydraulics.—Knibbs (New South Wales Royal Society, XXXI) has investigated the flow of water in uniform pipes and channels and finds that the formulæ used generally by engineers are defective. In a mathematical investigation he finds that the slightest roughness on the inside of a pipe leads to unstable states of fluid motion resulting in the formation of eddies. It is probable that the flow of water in anything but a mathematically smooth pipe thus can not be rigorously treated by

any of the methods of rational mechanics, for the very troublesome characteristic of all unstable states of a system is that subsequent aspects of the system are influenced to a finite extent by infinitesimal initial causes. He concludes that the law of velocity as related to temperature with at least two pipes of different roughness, as well as that connecting velocity with radius, needs further experimental investigation. Hele-Shaw (Institution of [British] Naval Architects, July, 1897, and April, 1898) shows that the flow of water in two dimensions past various cylindrical and prismatic obstacles can be investigated experimentally by using water containing air flowing between parallel glass plates. The air makes the water turbulent where the flow is most rapid. His photographs show in every case a clear line around the boundary, indicating that a thin film there remains comparatively calm, while shearing motion takes place in it. They also show "dead water" behind blunt edges, confirming the view that to minimize resistance a solid must taper at the stern rather than at the bow. The stream lines shown in the experiments coincide with those calculated mathematically for a perfect liquid, notwithstanding the difference in conditions. Prof. Shaw's work has been praised by some as the first to make hydrodynamics an experimental science. Others criticise it as dealing with a mixture of water and air instead of with pure water.

Diffusion.—Griffiths (London Physical Society, June 10), in experiments on diffusive convection or currents in a liquid caused by variations in the quantity of dissolved substance, finds that when two tubes of slightly different lengths unite an upper compartment filled with water to a lower one filled with a solution of copper sulphate, this kind of convection occurs up the longer tube and down the shorter, while diffusion takes place up both.

Absorption.—Vignon (Paris Academy of Sciences, July 4) finds that textile fabrics have specific absorptive powers for each liquid. Silk has the highest, wool is nearly equal to it, and cotton falls considerably below. Physically, textiles should be regarded as porous bodies; their absorptive power for water is about equal to that of a large sponge.

Condensation.—Wilson (Cambridge [England] Philosophical Society, Jan. 24) finds that ultra-violet light focused in moist dust-free air determines condensation as a bluish fog. If substances opaque to the rays are interposed there is no condensation. It is possible that the small particles to which the blue of the sky is due result from this action.

Solution.—Van der Lee (Amsterdam Academy of Sciences, Oct. 29) finds that the critical temperature of solution of a mixture of phenol and water appears to rise with increased pressure. Experiment confirms the theoretical indication of a maximum in the line that shows the pressure of the vapor in contact with the liquid as a function of the composition. Lehfeldt (London Physical Society, Nov. 25) finds that the same pair of liquids is completely miscible above 68° C., and incompletely below that temperature. At temperatures not too close to the critical point the vapor pressure of a saturated mixture is approximately the sum of the partial pressures calculated for the two saturated solutions. The author states that normal organic liquids always mix completely, but according to Prof. S. Young (*ibid.*) there are pairs of such liquids that approximate closely to partially miscible liquids, as benzene and normal hexane. Traube (Berlin Chemical Society, February) concludes that the contraction that takes place on the solution of a substance in water is proportional to the concentration of the solution and almost independent of the nature of the dissolved substance. In aqueous solutions he believes it due to the attraction between the solvent and the

dissolved substance. The number of water particles with which a given molecule of a substance in dilute solution combines is equal for all non-electrolytes, and for electrolytes increases proportionally to the number of ions. Van't Hoff's law of osmotic pressure may be deduced from this if we suppose that a molecule of any non-electrolyte in any dilute solution is at any moment united with only one particle of the solvent.

Hydrometry.—O'Toole (Dublin Royal Society) has devised a new form of hydrometer in which between the floating bulb and the weight pan there is what he calls a "standard bulb." The weights required to alter the immersion of the instrument from a point below to a point above this bulb equal the weight of its volume of the liquid.

Sedimentation.—Spring (Belgian Royal Academy) finds that pure water holding in suspension finely divided silica, or other non-electrolytic matter, begins to clear gradually when two platinum electrodes are plunged into it and a current is passed through them. He asserts that the turbulent state is due to a modification of the electric state of the particles caused by the change in the energy of attraction of the matter forming them, consequent on disintegration.

Crystallization.—Friedländer and Tamman (*"Zeitschrift für physikalische Chemie"*) find that the speed of solidification (the speed of propagation of the separating layer between liquid and solid when a liquid is in a state of superfusion), while it increases at first proportionally to the degree of superfusion, as shown by Gernez, afterward attains a value which it maintains for a long time and finally decreases again with further increase of the superfusion. Every substance has its own curve denoting its behavior under these circumstances.

Gases. Waves of Explosion.—Violle (Paris Academy of Sciences, Jan. 3), in experiments on the velocity of the wave produced by exploding powder and mercury fulminate in a steel tube, finds that as initial condensation increases the mean velocity of propagation also increases from that of sound up to about four times that speed. Jones and Bower (Manchester Literary and Philosophical Society, Jan. 25), from investigations on the collision of two explosion waves, believe they have proved that there is an increase of pressure at the point of collision. This is established by hydraulic tests, by photographs, and by the increase of luminosity at the point of collision, as well as the fact that the speed of the reflected wave is greater than if it had been reflected from a hard surface.

Mixtures.—Leduc (Paris Academy of Sciences, Jan. 17) proposes to replace Dalton's law (that the pressure of a mixture of gases is the sum of the pressure due to each) by another to the effect that the volume occupied by such a mixture equals the sum of the volumes that the components would occupy at the same temperature and pressure. These two laws are equivalent only when Boyle's law holds exactly.

Expansion.—Teudt (*"Zeitschrift für physikalische Chemie,"* XXVI, 118) has studied a curious deviation of atmospheric air from Gay-Lussac's law, the expansion above 350° C. being excessive. The deviation from the law is 2 per cent. at 400° and 8 per cent. at 450°, and is due to nitrogen alone. The author suggests that this gas exists in the atmosphere in an allotropic form, which is changed to the ordinary form at high temperatures.

Acoustics. Velocity.—Leduc has objected to the common method of measuring the velocity of sound in air, owing to the presence of moisture, but Violle (Paris Academy of Sciences, Dec. 5) shows that the correction due to this is smaller than the experimental error of the measurements.

Intensity.—Reed (American Association) describes an instrument for measuring the intensity of sound by observing the amplitude of vibration of a diaphragm with a micrometer microscope focused on the tip of a stylus attached to the diaphragm. Webster (*ibid.*) measures the amplitude of a thin glass diaphragm by the interferometer, the fringes being photographed on a moving plate.

Interference.—Crémieu (Société Française de Physique) has produced elliptical sound vibrations in air by the interference of the longitudinal vibrations of two organ pipes at right angles. By providing for the proper difference of phases an elliptic motion, whose presence was proved by delicate quartz fibers, was set up at their intersection.

Heat. Thermometry.—Harker (London Royal Society) has devised a new method for the exact determination of the zero point in thermometers. Distilled water is cooled below zero (centigrade) in a vessel protected from radiation; then the thermometer is introduced and freezing is induced by dropping in an ice crystal. The thermometer rises and finally attains almost exactly the true zero. Measurements made with an electrical-resistance thermometer show that the temperature of the mixture into which the bulb is plunged varies not more than $\frac{1}{1000}$ of a degree for a variation of 2° to 3° in the liquid that circulates in the apparatus. Watson ("Philosophical Magazine") describes an apparatus to facilitate the comparison of thermometers of very different dimensions. The two instruments are inclosed in a glass tube and their reservoirs are plunged into mercury. The tube is surrounded by a larger tube, and in the included space a liquid such as carbon disulphide, ethyl alcohol, or chlorobenzene is boiled under any desired pressure. Water can not be used because it condenses on the glass and makes reading difficult. The liquid is boiled by electrically heating a platinum coil. With this device a temperature constant to $\frac{1}{100}$ of 1° can be maintained for three or four hours. Half an hour is necessary for the establishment of thermal equilibrium corresponding to a given pressure. Richards ("American Journal of Science," September) proposes to make use in thermometry of the transition temperature or "melting point" of sodium sulphate ($\text{Na}_2\text{SO}_4 + 10\text{H}_2\text{O}$), which is almost exactly 32.48° . This point is easily obtained and very constant. Uehling and Steinbart ("Revue Universelle des Mines," July) have devised a pneumatic pyrometer that has been tested and calibrated to $1,650^{\circ}$. It consists of two chambers through which an air current passes with constant and uniform velocity. The air enters the first chamber by an orifice, A, and the second through an orifice, B. If the specific gravity of the air remains the same, the same quantity will pass A and B, and the pressure in the two chambers will be the same. But if in any way, as by heating, the density of the air in the first chamber is altered, the volumes passing A and B will be different and the pressures in the chambers will no longer be the same. By registering this difference of pressure the temperature of the first chamber can therefore be ascertained. Berthelot (Paris Academy of Sciences, Jan. 31) measures high temperatures by an interference method based on the fact that if the density of a gas is diminished to the same extent by rise of temperature or by diminution of pressure, the index of refraction has the same value in both cases.

Conductivity.—Straneo ("Atti dei Lincei," VII, 11) by using a method of determining simultaneously electric and thermal conductivities, finds that the internal conductivity varies with the temperature, but in a degree too small to be exactly determined. The surface conductivity and the dispersivity increase with the temperature. Hall

(American Association) points out that the method of measuring thermal conductivity in which thin plates are used is unsatisfactory owing to the difficulty of determining the difference of temperature of the two faces. He obviates this by copper-plating the two faces of his iron plate and by using the copper-iron thermo-couples thus formed for determining the temperature difference. He finds that the conductivity of iron increases as the temperature is decreased at the rate of about 1 per cent. for 8°C . Lees (London Royal Society, Dec. 16, 1897) believes that he has established the following experimental laws connecting conductivity with temperature:

"1. Solids, not very good conductors of heat in general, decrease in conductivity with increase of temperature in the neighborhood of 40°C . Glass is an exception.

"2. Liquids follow the same law near 30°C .

"3. The conductivity of a substance does not always change abruptly at the melting point.

"4. The thermal conductivity of a mixture lies between the conductivities of its constituents, but is not a linear function of its composition.

"5. Mixtures of liquids decrease in conductivity with increase of temperature near 30°C . at about the same rate as their constituents.

B. O. Peirce and Willson (American Academy of Arts and Sciences, August), from a determination of the thermal conductivities of about 20 varieties of marble, when the faces of the slabs are kept respectively at 18°C . and 45°C . find that the conductivity may depend to several per cent. on the amount of absorbed moisture. The conductivities ranged from 0.00501 to 0.00761.

Convection.—Guébbard ("Nature," June 30) finds that when a slightly fogged photographic plate is developed in a shallow bath and the experimenter presses his finger on the plate during the process streaks are observed to radiate from the parts touched. These are due to convection currents caused by the warmth of the finger, and can also be produced by warmed inorganic bodies. These results are of interest because the streaks have been represented by some to be photographs of the "lines of force of animal magnetism."

Specific Heat.—Lummer and Pringsheim (Wiedemann's "Annalen") have measured the ratio of the two specific heats (at constant volume and constant pressure) in certain gases, using a new form of bolometer and employing the relationship between temperature and pressure in adiabatic expansion. The results are as follow:

Air.....	1.4025	Carbonic acid.....	1.3295
Oxygen.....	1.3977	Hydrogen.....	1.4084

Leduc (Paris Academy of Sciences, Oct. 31) concludes theoretically that the ratio of the two specific heats of air varies slightly with the temperature, the ratio between the value for 0° and that for 100° being 1.0006. For carbon dioxide the same ratio is 1.028. Behn (*ibid.*, October) concludes that if the decrease of the specific heat of metals with the temperature be represented by curves these will all intersect at the absolute zero. It is possible that all the specific heats themselves become zero at this point, and in any case the law of Dulong and Petit does not hold for low temperatures. Tilden, in a lecture before the Royal Institution, May 13 ("Science," July 29), describes experiments undertaken to discover whether the law of Dulong and Petit (that the product of atomic weight and specific heat is constant) is or is not exact. Earlier experimenters had concluded that it is not, and Prof. Tilden by using very pure metals sought to find whether their results were or were not due to impure materials. His result for cobalt and nickel, which make the specific heats respectively 0.1035 and

0.1093 seem to indicate non-exactitude of the law, "for," as he says, "although the exact values of the atomic weights of these two elements are not known, it is certain that they are not so far apart as would be implied by these values for the specific heats. Results with gold and platinum and copper and iron are similar. The author accounts for the divergences from the law on stereochemical grounds, assuming peculiarities in the configuration of the metallic atoms. That there are such differences he thinks follows from the theory of Werner, of Zurich, that isomerism in metallic compounds is to be explained on similar grounds to those now accepted with regard to the constitution of the carbon compounds.

Mechanical Equivalent.—Patterson and Guthe (American Association) have reconciled recent conflicting redeterminations of this constant by measuring with great care the value of the ampère in terms of the electro-chemical equivalent of silver, using a large specially constructed electro-dynamometer and employing the torque of a phosphor-bronze wire to equilibrate the counter-torque due to the effort between the magnetic fields of the stationary and movable coils. This eliminates the effect of gravity. The result obtained was 0.0011192 gramme per ampère per second. This exceeds Lord Rayleigh's value by $\frac{1}{3}$ of 1 per cent. and causes the discrepancy between the results of Griffiths and those of Rowland to disappear. Baille and Féry (Paris Academy of Sciences, May 23) have determined the mechanical equivalent by a new method, by measuring the heating effect on a cylinder of copper fixed in a rotating magnetic field. The value of J was thus found to lie between 422 and 426.

Equilibrium.—Bruni ("Atti dei Lincei," October), in a discussion of the thermodynamics of equilibrium in systems of two and three components having one liquid phase, comes to the following conclusion: "If to a system of two components with only one possible liquid phase there be added a third component which does not combine with the first two and is not isomorphous with them, the curves expressing equilibrium of the same order (curves of saturation in binary systems and cryohydric curves in ternary systems) are parallel. Only in systems represented by the curve of the ternary mixture the third added component exists mostly in the solid phase."

Boiling Point.—The boiling point of liquid ozone has been determined by L. Troost (Paris Academy of Sciences, June 20) to be -119°C ., the temperature being determined by means of an iron-constantin thermo-couple.

Leidenfrost's Phenomenon.—Stark (Wiedemann's "Annalen," June), by including in a telephone circuit a hot metal plate with a drop in the spheroidal state, shows that the drop performs, with respect to the contiguous layer of vapor, oscillations due to differences of surface tension between the hot and cold portions.

Measurement of Radiance.—Angström has devised an instrument for measuring radiance, which was exhibited by E. S. Ferry to the American Association. It consists essentially of two bolometer strips, one of which is heated by the radiance to be measured and the other is heated to the same temperature by an electric current, from which the absolute value of the radiance may be calculated.

Light Velocity.—Morbey, Eddy, and Miller (American Association), from experiments to determine whether the speed of light is affected by magnetism, conclude that its velocity in carbon bisulphide is not altered by one part in a hundred million by

a magnetic field of such an intensity as to turn the plane of polarization through 180° in a path of 65 centimetres.

Photometry.—Rood ("Science," June 3) describes a form of flicker photometer consisting of a white upright prism of 90° whose sides are illuminated by the lights to be compared. Between this and the observer is a cylindrical lens or biprism of small angle, whose rapid oscillation causes the flicker, the illuminated sides of the prism being presented to the eye in very rapid succession. This instrument, like other flicker photometers, is independent of color.

Transparency.—Rubens and Aschkinass (Wiedemann's "Annalen," March) find that steam and carbonic acid absorb infra-red rays of wave length about 24μ in thick layers. Their absorption by the atmosphere accounts for the absence of these rays in the solar spectrum. Some liquids are very transparent to the rays, especially benzol.

Spectroscopy.—Michelson ("American Journal of Science," March; "Astrophysical Journal," June) has devised what he calls the "echelon spectroscope," which reveals details of the spectrum beyond the power of the best gratings hitherto invented. In this instrument spectra of a very high order are used; by building up a flight of glass steps, as in

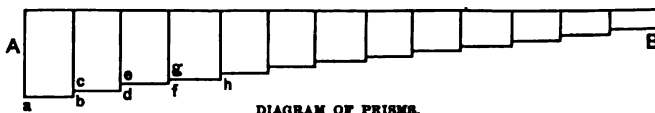


DIAGRAM OF PRISMS.

the illustration, the difference in the optical path for various sections of the light may be made any desired number of wave lengths and a spectrum of order 20,000 may thus be produced. In a description in "Science," Aug. 19, C. R. Mann says:

"The blocks of glass composing this 'staircase' must be of exactly the same thickness, a result which is accomplished by polishing a plate of optical glass until its opposite surfaces are plane and parallel to each other, and then sawing this plate into pieces of the requisite size. Suppose now a beam of parallel light to fall on this pile of plates perpendicular to the face at A. In passing through the first block from a to b the beam will be retarded by, say, 20,000 waves, the number depending on the thickness and the index of refraction of the glass. Part of the light then comes out into air through the narrow opening bc and the rest goes on through the block cd . The part of the incident beam which comes out through the opening de has also been retarded 20,000 waves over the part that came through bc and so on. It is thus easily seen that this instrument, when looked through along the axis from B to A, gives the required conditions for the production of a diffraction spectrum of high order; for we have the light between the source and the point of observation divided into a number of beams, each of these beams having to travel 20,000 waves farther to reach its goal than its adjacent beam on one side of it, and 20,000 waves less than its adjacent beam on the other side of it."

With this instrument a resolving power of more than 300,000 has been attained, and it is believed that 500,000 will soon be reached. The highest power of the best gratings is about 100,000. Of course the field is extremely small. Perot and Fabry (Paris Academy of Sciences, Jan. 3) have devised a new form of interferential spectroscope composed of two plates of silvered plane glass, producing rings that are observed from an infinite distance. Fabry and Perot (*ibid.*, May 31) find that the order of an interference fringe of high order, such as those produced by two parallel silvered plates about 8

or 4 centimetres apart, can be determined by throwing simultaneously rays of two different known wave lengths—(say red and green), and noting the positions of exact coincidence of a red and a green ring.

Magneto-optics.—Further experiment on Zeeman's phenomenon ("Annual Cyclopædia," 1897, page 673) shows that the effect of a magnetic field is usually to divide light of one refrangibility into three components, two of which are displaced by diffraction analysis on either side of the mean position and are polarized oppositely to the third or residual constituent. The phenomenon has been investigated photographically by Preston in Dublin and by Michelson and Ames in this country. All spectrum lines are not tripled, some being left unchanged, some doubled, and others quadrupled or even sextupled. The polarization is usually such as to indicate that motions of a negative ion or electron constitute the source of light, but a few lines are affected in the opposite way. Cornu (Paris Academy of Sciences, Jan. 17) finds that the action appears to depend not only on the chemical nature of the source of light but also on the nature of the group of spectral rays to which each radiation belongs, and on its function in this group. If the direction of the field is normal to the lines of force the rays are quadrupled, not trebled. The same experimenter (*ibid.*, Jan. 24) has made measurements showing that the magnitude of the separation produced increases with the refrangibility of the ray. Fitzgerald (London Physical Society, Jan. 21) thinks that when the effect appears to be a doubling of the line, a third central line has been produced but absorbed by the surrounding medium. The same authority, in an article on "The Zeeman Effect and Dispersion" ("Science Progress," November), gives the following explanation of the effect: "The effect of magnetic force on the vibrations of molecules is a complicated one. . . . Every simple vibration of a point may be analyzed into two circular rotations, one right-, and the other left-handed, in a plane at right angles to the magnetic field and into a linear component in the direction of the field, all these being of the same period. The effect of the magnetic force in the simplest and apparently very common case is to leave the component in the direction of the field unchanged and to make one of the circular components rotate more rapidly and the other less rapidly than when there is no magnetic force acting. The changes of frequency are directly proportional to the strength of the magnetic field, but are independent of the intensity of the vibration of the molecule. This simplest action is what we would expect to take place when the magnetic force acts on a moving electron which is equally free to vibrate in every direction. On account of this important condition, however, we need not be surprised to find more complicated effects produced in the case of a large number of spectral lines. It is very improbable that the molecules of most gases are so symmetrical that all vibrations in every direction are equally possible, and, as a matter of fact, very complicated effects have been observed in the case of a large number of lines. The effect of magnetic force in this simplest case is to make the axis of the orbit of an electron rotate round the line of magnetic force. We might expect a disturbing force to produce other changes in the orbit, in general; such, for example, as causing the inclination of the orbit and its eccentricity to change. Actions such as this would produce complications in the spectra, as has some time ago been pointed out by Dr. Stoney.

"These theories as to light vibrations being due to simple harmonic vibrations of electrons are, however, almost certainly only provisional. They require the forces acting on the electrons to be directly

proportional to the distance from their positions of equilibrium. It is unlikely that electrons can be subject to such forces, and their vibrations are much more probably of the nature of perturbations of orbital motions executed under quite other laws of force. For example, the rotation of the lunar nodes is a vibration of a system, the earth, sun, and moon, which is controlled by forces varying inversely as the square of the distance and is one whose period is almost independent of the eccentricity of the lunar orbit, although the amplitude of the radiation such a rotation might emit might be directly proportional to this eccentricity. The whole question is very complicated. It practically assumes that the fundamental motions in the molecules are immensely more rapid than any of those we deal with in light vibrations, and that these latter are merely perturbations of the fundamental motions. It is well to keep these things in mind, although we are to all appearance so very far from any satisfactory explanation of it all, because it points out the direction in which to look for an advance in our knowledge. That we know so little and see so little ahead in these fundamental matters may be disheartening, but it shows how very important any advance in our knowledge of molecular motions is, and should encourage us to a study of even minute effects such as Zeeman has observed." Fitzgerald connects the phenomenon with other electro-optic effects as follows: "It appears probable that the whole cause of the Faraday effect is to be looked for in each substance in a Zeeman change of the free vibrations of the molecules of the substance by the action of magnetic force, this change in the free periods reacting through their resonances on the rate of propagation of the circularly polarized components of light passing through the magnetized medium. A theory on similar lines may be worked out to explain the Kerr effect and the Hall effect, this latter being an action on electrons moving continuously in one direction, not on simply vibrating ones." Becquerel and Deslandres (Paris Academy of Sciences, July 4) find that in a very intense magnetic field (35,000 C. G. S. units) the bands of nitrogen and cyanogen show no signs of doubling. Most of the rays examined broke up into three, but certain ones split into five. The distribution of these, considered as a function of the wave length, shows signs of periodicity.

Luminescence.—Levison (New York Academy of Sciences, Dec. 5) has attempted to classify all phosphorescent and fluorescent substances, grouping under the former head all those that give out shorter radiations than they receive, and placing under the latter those that give out longer radiations than they receive. The following is his arrangement of the former class:

Phosphorescent	{	Thermo-	Heated or cooled.
		Electro-	{ Statically electrified.
			{ Exposed to X-rays.
		Lumino-	
		Tribo-	{ Rubbed.
			{ Compressed.
			Hammered.
		etc.	

The fluorescent substances are subdivided similarly. Schmidt (Wiedemann's "Annalen," April) has performed some experiments to test the theory advanced by E. Wiedemann and himself, that fluorescence is due to the recombination of molecules split up into ions by the action of light. If this is true, fluorescent bodies would not be photo-electrically sensitive, but no such connection between the two phenomena was found in the experiments, which showed, on the contrary, that the most strongly thermo-luminescent bodies are also most

powerfully photo-electric. Guillaume ("Revue Générale des Sciences," Dec. 15, 1897), discussing an experiment of Burke that seems to show that fluorescent bodies are more strongly absorbent while fluorescing, suggests that the molecules are excited momentarily to a forced vibration and become for an instant susceptible of absorbing vibrations of the same period. He would bring the phenomenon under Kirchhoff's law by suppressing altogether the idea of temperature in this law. Villard (Paris Academy of Sciences, May 16) finds that those parts of a fluorescent screen that have been in shadow are more luminous when the object is removed than the parts previously illuminated. Wesendonck (Wiedemann's "Annalen," December, 1897) finds that a luminescent body is capable of imparting heat to a body warmer than itself, but that there is no contradiction of the second law of thermodynamics, as there is no ordinary thermal radiation. Burke (British Association) has made the luminosity produced by striking sugar practically continuous by using a hammer to strike the rim of a revolving disk of sugar about twice a second. The luminosity extends from the hammer inward and downward, and its spectrum is confined to the more refrangible side of the F line. The nature and appearance of the light are not dependent on the surrounding medium.

Becquerel Rays.—Stewart ("Physical Review," April) in a general review of the subject concludes that Becquerel rays are due to transverse ether waves, but that owing to feebleness and short wave length it is doubtful whether their interference can ever be shown. They are non-homogeneous, like X rays, and their similarity in behavior to these is a strong argument in favor of the short-transverse-wave theory of X rays. Schmidt (Wiedemann's "Annalen," May) finds that thorium compounds and some other substances give out Becquerel rays differing from those that proceed from uranium in not being polarized by tourmaline and in being less powerful, as measured by the time required to discharge an electrified plate. Russell believes that this ray-emitting power may be a general property of matter, for nearly every substance affects a sensitive plate in darkness, if given time enough. He shows in the Bakerian lecture before the London Royal Society, March 24, that certain metals and organic substances can produce images on a photographic plate, the activity of the organic substances being the greater. Printer's ink and copal varnish both are of this class, owing to the linseed oil in the former and the turpentine in the latter. Vegetable oils and essential oils containing terpenes are all active. All substances having similar effects are reducers, absorbing oxygen, and this apparently causes their power. The action, however, can take place through thin layers of certain solid bodies—for instance, gelatin, celluloid, and gutta-percha; but others, such as glass and mica, prevent all action. Elevation of temperature increases the action. Of common metals, zinc gives the best results. The active metals are, in order, magnesium, cadmium, zinc, nickel, aluminum, lead, and bismuth. The metallic surface must be brilliant. Inactive liquids, such as alcohol, if soaked in an active metal for a few days, become active. Further experiment indicates that the phenomenon is due to an actual emanation and not to luminescence. M. and Mme. Curie (Paris Academy of Sciences, July 18) have shown that the activity of pitchblende as a source of Becquerel rays is due to a new substance, which they have named *polonium*.

Electro-magnetic Theory.—Buisson (Paris Academy of Sciences, Feb. 7), to test the relation between transparency and electrical resistance required by the electro-magnetic theory of light, has

measured the transparency of a thin sheet of bismuth whose resistance was caused to vary suddenly by placing it in an electro-magnetic field. No variations in the transmitted light being observed, the author concludes that the conductivity that affects transparency is of a different order from the usual kind.

Pseudoscope.—Solomons ("Nature," Feb. 3) has devised a pseudoscope with which an approximate stereoscopic effect can be obtained with a single picture. A large, deep cylindrical lens is cut into two wedges, each having one flat and one curved side. These are placed together with the thick portions toward each other and held at a short distance over the picture. Two images result, each of which is compressed on the inner side, which is a property of the ordinary pair of stereoscopic views. By viewing these images with stereoscopic lenses the impression of solidity is produced, unless the original picture contained an object very near the observer.

Electricity. Resistance.—Le Chatelier (Paris Academy of Sciences, June 20) finds that tempering does not modify the resistance of steel except when it takes place above the temperature of recalcence (710°). The resistance then increases with the temperature of tempering, up to a value higher as the steel is richer in carbon. The increase of resistance in iron due to the presence of carbon averages 45 microhms for an addition of 1 per cent. by weight of carbon. The same is true of silicon. Le Roy (*ibid.*, Jan. 17) has measured the resistance of crystallized silicon, which he finds to be 1,300 times that of electric-light carbon. It diminishes on heating, falling 40 per cent. for a rise of 800° C. Gressman (American Association) reports that lead amalgams show a remarkable sudden decrease in resistance upon solidification, the resistance of the solid amalgam being sometimes as low as one fifth of the resistance of the fluid amalgam at its freezing point. If the thermoelectrical explanation—based on heterogeneity—of excessively high resistance of alloys is correct, an increase of resistance upon solidification would seem probable, for it is then that the alloy becomes heterogeneous. Branly (Paris Academy of Sciences, July 25) finds that although two smooth plane disks of zinc or copper when pressed together offer practically no resistance to the current, disks of iron, aluminum, or bismuth give a small resistance, which is greatly increased when they are brought forcibly together by falling from a height. M. Branly is unable to explain this fact. In 1877 Bosi ("Il Nuovo Cimento," April) described experiments that seemed to show that a very moderate velocity (10 or 12 centimetres a second) of an electrolyte with or against a current flowing through it changed its resistance. Hayward ("Physical Review," November) has been unable to detect any such action, using a 5-per-cent. solution of copper sulphate with a velocity of flow of 8 to 11 centimetres a second. Haagen ("Zeitschrift für physikalische Chemie"), in an investigation of the internal resistance of galvanic couples, comes to the following conclusions: 1. The internal resistance of galvanic elements with simultaneous electrolysis is independent of current intensity, the slight oscillations being due to changes of concentration. 2. In accumulators a slow increase of resistance takes place at first, and this becomes more and more rapid during the discharge, while during the charging the changes of resistance are in inverse order; these arise from the deconcentration of the sulphuric acid and the production of a passage resistance at the electrodes, especially at the peroxidized one. Fawcett (British Association) has constructed standard high resistances of great constancy by depositing cathode films on glass and heating them for a long time in a partial vacuum.

Conductivity.—Van Gulik (Wiedemann's "Annalen," September) finds by experiments on the conductivity of powders, by means of minute terminals under the microscope, that the influence of electric radiation increases conductivity by promoting mechanical contact (Lodge's view) and not by modifying the surrounding dielectric (Branly's view). Smithells, Dawson, and Wilson (London Royal Society, Nov. 17) conclude from experiments that the conductivity of vaporized salt is electrolytic, but differs somewhat from that of electrolytic solutions. Ohm's law is obeyed within limits. The conductivities of salts depend on the electro-positive constituent, and on the negative also at high concentrations. That of the haloid salts as a group differs from that of the oxy-salts, the former increasing with the increasing atomic weight of the halogen, while that of the latter is approximately uniform, approaching that of the hydrates.

Thermoelectricity.—Rubens ("Zeitschrift für Instrumentenkunde") shows that the capabilities of the thermopile (now generally replaced by other devices for measuring small thermal changes) may be increased by reducing the thermal capacity of the couples. He uses fine wires of iron and "constantan" (a nickel alloy). The thermoelectric power of this couple is about half that of an antimony-bismuth couple, but this is outweighed by the gain in sensitiveness, due to decreased thermal capacity. Perrot (Paris Academy of Sciences, April 25) finds that the ratios for the electro-motive forces for a bismuth-copper couple in the two positions of the bismuth crystal (parallel and perpendicular to the principal axis) are between 2 and 2.4. Stansfield (London Physical Society, March 25) concludes that thermoelectrically there may be two classes of metals: (1) Ordinary metals, for which the curve representing the first differential of electro-motive force with respect to temperature is a straight line; and (2) the platinum metals, together with a few, such as nickel and cobalt, for which the curve of this differential multiplied by the absolute temperature is a straight line.

Contact Electricity.—Christiansen (Wiedemann's "Annalen," December, 1897) finds that the gas surrounding a jet of zinc, lead, or tin amalgam influences its uninterrupted length, the breaking up of the jet being retarded by air, oxygen, and sulphurous acid, owing to contact electrification. Dry air and oxygen have no effect.

Discharge.—Edmondson ("Physical Review," VI, 2) finds that the curves that represent the relation between potential difference and sparking distance are in general approximately hyperbolas, which become practically straight lines for sparks longer than 3 millimetres. Moore ("American Journal of Science," July) finds that the gaseous pressure in the direction of discharge is greater than that in either of the directions at right angles by an amount depending on the velocity of the discharge stream. Toepler (Wiedemann's "Annalen," jubilee volume) has succeeded in obtaining a stratified discharge in open air, recalling the stratified anode light, by interposing in the path of the spark a semi-conducting plate of slate, granite, or basalt, and ballasting the discharge with a heavy water resistance. F. Darwin (Cambridge [England] Philosophical Society, May 16) concludes from experiments on the figures produced on photographic plates by electric discharges that these figures are due chiefly to the light of the discharge, the difference between the effects of positive and negative discharges being due to the difference in the form of the discharge. Buisson (Paris Academy of Sciences, July 25) finds that the velocity of the electrified particles during discharge under the influence of ultra-violet light varies from 26 to 135

centimetres a second, according to the difference of potential between the plates of the condenser. It is independent of the intensity of the light. Ruthenford (Cambridge [England] Philosophical Society, Feb. 7) believes that the theory of discharge that attributes it to the disintegration of metallic particles will not explain the facts, and suggests that gaseous ions are formed at the surface of the negatively electrified plate. Heen ("Bulletin of the Belgian Royal Academy") obtains by modifying air with a Bunsen burner results in electro-dispersive power which can not be accounted for on Villari's theory of Röntgenized air, but indicate a special kind of energy, named by the author infra-electric. (For other discharge phenomena see the following paragraph.)

Propagation in Gases.—Wiedemann and Schmidt (Erlangen Medical Society) find that gases excited to incandescence by electric discharges will absorb electric waves even when they fail to do so if unexcited, but the dark cathode space will do so but feebly. Their experiments also seem to disprove the theory that conduction through rarefied gases is electrolytic. Trowbridge (American Academy of Arts and Sciences, XXXIII, 21) has installed a storage battery of 10,000 cells, with which he has investigated the behavior of gases to discharges of very high tension. He finds that beyond 1,000,000 volts the initial resistance of air decreases, and may fall as low as 1,000 ohms between terminals 2 to 3 inches apart. X rays can be produced with an electro-motive force of 10,000 volts, and there are indications of them at 5,000. The behavior of rarefied media to powerful electric stress seems to resemble that of elastic solids to mechanical stress; a so-called vacuum, which acts as an insulator for electro-motive forces that give a spark of 8 inches in air (about 200,000 volts), breaks down under 3,000,000 volts. A single discharge with this voltage through highly rarefied media produces X rays powerful enough to photograph the bones of the hand in one millionth of a second. During the discharge the apparent resistance of the medium is but a few ohms. The medium may be said to lose its elasticity and be ruptured.

Dielectrics.—Gray ("Physical Review," November) reports from measurements of the dielectric strength of insulating materials, made by himself and his pupils, that in the case of air there is practically no difference between the maximum value of the alternating electro-motive force and the static electro-motive force required to produce a spark of given length in this medium when approximately flat plates are used as terminals. In the cases of some solids, as, for instance, paraffined paper, the results seem to indicate considerably greater strength against a static charge than against an alternating electric stress, but the author concludes that further experiments are desirable and gives no results for such substances. Pellat and Sacerdote (Paris Academy of Sciences, Oct. 17) find that the dielectric constant of paraffin diminishes with rise of temperature, but that that of ebonite increases. Edmondson ("Physical Review," VI, 2) finds that the dielectric strength of air obtained with spheres is considerably higher than that obtained by other investigators with planes.

Vacuum-Tube and Cathode Phenomena.—Trowbridge and Burbank ("Philosophical Magazine," February) have devised a tube in which the space between anode and cathode is abolished and a continuous wire passes through the tube, which is then inserted in a circuit containing a spark gap and a Trowbridge rheostatic machine, whose condensers are charged in parallel and then discharged in series, producing a voltage of nearly 1,000,000. The tube glows all over and X rays are developed.

though they can not be used photographically because a brush discharge passes from tube to sensitive plate. The distinction between anode and cathode rays disappears. Wehnelt (Wiedemann's "Annalen," July) finds that the resistance of the dark cathode space to electric discharge is considerable, giving to the latter a disruptive character as if it were filled with a dielectric. E. Wiedemann (Wiedemann's "Annalen," jubilee volume) finds that when a positive-wire anode is brought into the dark cathode space the resistance of the intervening gas is increased, the positive light bending back till it merges in the negative glow. The same result follows the surrounding of the anode with a narrow tube. Gill ("American Journal of Science," June) explains the stratification of the vacuum tube as a form of Kundt's experiment in which heaps of powder accumulate at the nodes of a vibrating air column, the heaps being represented by strata of molecules between which the discharge is taking place in a luminous form (see also above, under *Discharge*). Swinton (London Physical Society, March 25) has investigated the circulation of gaseous matter in a Crookes tube, using a mica mill on a sliding rod, and finds that at high exhaustion a positively charged anode stream moves outside the cathode stream and in an opposite direction. At very high vacua there may be a regular circulation of positive and negative atoms. Birkeland (Paris Academy of Sciences, Feb. 21) finds that the discharge in a Crookes tube is uninfluenced by a magnet beyond a certain distance, but that, as it approaches, there is a critical position at which all the properties of the discharge are suddenly changed, the difference of potential between anode and cathode being reduced to one tenth, and the cathode rays being succeeded by others that produce no phosphorescence. This critical distance increases with the strength of the magnetic field. Kaufmann and Aschkinass (Wiedemann's "Annalen," December, 1897) find that the amount of deflection of cathode rays produced by a narrow field due to condenser plates mounted in a tube that crosses the vacuum tube at right angles is in accordance with the projection rather than the wave hypothesis. Paalzow and Neesen (Wiedemann's "Annalen," jubilee volume) find that when the force lines of a magnetic field lie across the path of a vacuum discharge the current is always enfeebled and sometimes broken. Villard (Paris Academy of Sciences, July 25), in a study of the phenomena supposed by S. P. Thompson to be caused by what he calls "paracathodic rays," attributes them to the diffusion of ordinary cathode rays. The same investigator ("Bulletin" of the Société Française de Physique, Nos. 108, 111) suggests that the cathode rays, from their reducing action, may consist wholly of hydrogen atoms due to traces of moisture in the vacuum tube. Wiedemann and Wehnelt (Wiedemann's "Annalen," March) find that when the lines of force are parallel to the axis of the tube the cathode rays are twisted into a bundle with successive nodes. This agrees with the theory that supposes the rays to consist of projected particles. Capstick (London Royal Society, May 26) has measured the fall of potential in the immediate neighborhood of the cathode in vacuum tubes, which is constant for the same gas, and which, he thinks, will prove to be connected with other constants. The values in volts for the gases experimented upon were as follow:

Hydrogen	298	Water vapor	469
Nitrogen	233	Ammonia	582
Oxygen	369	Nitric oxide	373

If gaseous conduction is electrolytic, the author thinks these numbers may be proportional to the

heats of dissociation, and thus the experiments might be taken to support Prof. J. J. Thomson's view that the current is carried by particles smaller than atoms, the result of their disintegration. Wien (Wiedemann's "Annalen," June) calculates that the velocity of the cathode rays is one third that of light. Malagoli and Bonacini ("Atti dei Lincei," VII, IV) find that both electrodes emit what they call "orthocathodic rays" at the same time, but that which connects with the negative pole of the exciter develops them more intensely. From the electrodes at a certain stage of rarefaction start two oppositely charged cones of radiation, one inclosed in the other or partially separate. The violet anodic light, like the orthocathodic rays, is intensely affected by a magnetic field, but oppositely. Goldstein (Wiedemann's "Annalen," January) finds that when the cathode is perforated the yellow layer next it streams through in rays called by him "canal rays," and fill the tube on the anode side, prolonging the cathode rays backward. They are not deflected by a magnet and produce no phosphorescence. (See also the next paragraph.)

Röntgen Rays (see RÖNTGEN RAYS, in "Annual Cyclopædia" for 1896).—Crookes, in his presidential address before the British Association ("Nature," Sept. 8), states as a now generally accepted conclusion that collisions among the flying atoms of an attenuated gas or their impact on an object in their path give rise to Röntgen radiation. "It has," he says "for some time been known that whereas a charged body in motion constitutes an electric current, the sudden stoppage or any violent acceleration of such a body must cause an alternating electric disturbance, which though so rapidly decaying in intensity as to be practically 'dead beat,' yet must give rise to an ethereal wave or pulse traveling with the speed of light. If the target on to which the electrically-charged atoms impinge is so constituted that some of its minute parts can thereby be set into rhythmical vibration, the energy thus absorbed reappears in the form of light, and the body is said to phosphoresce." Stokes similarly holds that the rays are due to the disturbed electric field caused by the sudden stoppage of the electrically charged atoms that constitute the cathode rays—an explanation already advanced by him to account for the Lenard rays before the discovery of those of Röntgen. This theory, now named the "pulse" theory, has an important bearing on the whole theory of light. According to it the disturbance that causes the X-ray phenomena is transverse, but of very short wave length. J. J. Thomson ("Nature," May 5) also believes the rays to be "pulses" rather than short waves, "not," he says, "because I think the properties of the latter would be different from those of Röntgen rays so far as we know them, but because electro-magnetic theory shows that pulses and not waves are produced by the impulse of cathode rays." Trowbridge, summing up his experiments in "The Century Magazine," concludes that the rays include two classes of phenomena—an electrical disturbance and its conversion into fluorescent light. His experiments show that anode rays as well as cathode rays exist and that both are subject to the laws of electrical induction. We should not expect, therefore, he thinks, that the rays should be reflected or refracted like light. Röntgen, the discoverer of the rays (Berlin Academy of Sciences), concludes that they consist of a mixture of rays of different absorbability and intensity, that rays which produce equal fluorescence can be photographically different, and that the eye is not entirely passive to the rays. Campbell-Swinton (London Royal Society, June 16) has studied the active area on the anti-cathode of a focus tube by means of pin-hole photography, and finds among other things (1) that

this area is larger the farther beyond the focus the anti-cathode intersects the cathode stream: (2) that when the intersection is considerably beyond, the area has an intense nucleus surrounded by a halo; (3) that when the anti-cathode is at 45° to the stream those portions of the stream that impinge most normally produce X rays best; (4) that at most suitable degrees of exhaustion the cathode stream proceeds almost wholly from a small central portion of the cathode; (5) that the parts of the stream cross at the focus; (6) that, as S. P. Thompson has pointed out, fluorescence is not due directly to cathode rays, but to what he calls "para-cathodic" rays, proceeding from the anti-cathode and differing from X rays in power of penetration and in magnetic deflectability. The author suggests that they may consist of rebounding cathode-ray particles that have changed their negative for positive charges, and may thus be identical with anode rays. Morize (Paris Academy of Sciences, Oct. 17) finds by allowing the rays from a Crookes tube to fall through a narrow slit on a rapidly rotating plate that the average duration of total emission of X rays is about one thousandth of a second. Bordier (Paris Academy of Sciences, Feb. 21) finds that the process of osmosis is retarded by exposure to the rays. Wind (Amsterdam Royal Academy, June 25) has found faint evidence of the diffraction of the rays. Trowbridge and Burbank ("American Journal of Science," January) find that fluorspar phosphoresces brightly on heating after exposure to either the X rays or a brush discharge. They think it probable, therefore, that the rays produce an electrification of the fluorspar. Villari ("Atti dei Lincei, VII," 8) finds that Röntgen rays in traversing a long tube that is opaque to them lose a large part of their power of discharging an electrified conductor. He attributes this to the action of the tube in cutting off lateral rays, which would accelerate the discharge by their effect on the surrounding air. The rays themselves do not seem to be modified by passage through the tube. Sagnac (Paris Academy of Sciences, Feb. 14) finds that air through which X rays pass gives off secondary radiations that affect an electroscope. This action he compares to the shining of a fluorescent liquid. The same investigator (*ibid.*, March 21) finds that a metal on which X rays fall emits these secondary rays and that they differ in penetrative power from the original rays. Those from aluminum are more penetrative than those from zinc. The rays produce photographic impressions, excite fluorescence, and discharge electrification. They are freely absorbed by aluminum (differing thereby from Röntgen rays), and then give rise to tertiary rays, which are still more readily absorbed. De Heen (Belgian Royal Academy) concludes that every source of disturbance in the ether gives rise not only to known radiations but also to other rays which differ from Röntgen rays only in wave length. They are absorbed so much more readily than ordinary light that our atmosphere completely sifts them from the solar radiation. These rays effect the discharge of conductors and an electric field behaves toward them as an opaque medium.

Electric Waves.—Bose (Calcutta Royal Society; abstract in "Nature," Feb. 10) has investigated the refractive index of glass for electric waves to test Maxwell's relation $K = \mu^2$, in which K is the specific inductive capacity and μ is the refractive index. He found that the refractive index for electric waves was 2.04, while the optical index for the D line is 1.53. Maxwell's relation would therefore make K equal to 4.16. Bose's measurements gave it various values between 2.7 and 9.8. He found the minimum thickness of air space for total reflection between two semi-cylinders with 30° incidence to

be 13 millimetres; with 60° incidence, between 7.6 and 7.2 millimetres. The effective thickness of the air film increases with the wave length. The same investigator (London Royal Society, March 10) finds that the plane of polarization of electrical waves is rotated by passage along a twisted structure, such as jute fiber. Muriani ("Rendiconti" of the Lombard Royal Academy, XXX, 4) has studied the phenomenon of "multiple resonance" (see "Annual Cyclopaedia," 1890, p. 715) with the aid of the coherer. He finds no evidence of maxima and minima due to nodes and loops, and concludes that the radiations are not simple, but composed of an infinity of waves of different periods.

Hall Effect.—Donau (London Physical Society, June 24), from a mathematical investigation of the possibility of a Hall effect in a binary electrolyte, concludes that those experimenters who fail to find any such effect are correct.

High Frequency.—Tesla (London Physical Society, Jan. 21) has devised for high-frequency experiments an induction coil having in the primary circuit a separate self-inductance coil that is also used as an electro-magnet for the interrupter of that circuit.

Standard Cells.—The determination by Patterson and Guthe of the electro-chemical equivalent of silver (see "Mechanical Equivalent," under *Heat*, above) involves a corresponding change in the electro-motive force of the Clark standard cell, which would be 1.4327 instead of 1.4342 at 15°C .

Thermophone.—Braun (Wiedemann's "Annalen," June) finds that a bolometer, or a strip of brass, put in circuit with accumulators and a microphone may be used to transmit sound by means of the momentary expansions and contractions produced in it by a variable current.

Telegraphy.—Crehore and Squier have devised means for using individual pulsations of a sinusoidal alternating current for signaling in high-speed telegraphy. Tests in England show that their synchronograph is capable of transmitting words from three to seven times as fast as the Wheatstone apparatus at present in use.

Measurements.—Blondlot (Paris Academy of Sciences, June 18) measures quantity of electricity directly in electro-magnetic units by suspending a ring coil on a vertical axis inside a long horizontal bobbin, the same current flowing through both coils. The product of the current intensity into the time of oscillation is constant, and by adding a device for counting the vibrations a practical coulomb meter is made.

Magnetism. **Magnetization.**—Weyher (Paris Academy of Sciences, Nov. 21) reproduces the properties of magnets mechanically by means of combinations of vortices in air or water. The bars representing the magnets have a wooden axis on which are fastened paper vanes along its whole length. A similar bar set in rotation attracts or repels the first, according as the directions of rotation are the same or opposite; the neutral zone and other properties of magnets are shown. Mme. Curie ("Bulletin" of the Société d'Encouragement pour l'Industrie Nationale) finds that steel with 1.2 per cent. of carbon is best for permanent magnets. Steel does not take temper unless heated above the temperature at which its magnetic properties change. Different metals in steel do not usually modify the residual magnetization, but often considerably increase the field necessary for demagnetization (the coercive field). The greater the coercive field the less is the effect of blows. The best permanent magnets are made by heating the steel to 60°C . and partially demagnetizing it, after having magnetized it to the saturation point. Kirstädter (Wiedemann's "Annalen," May), to deter-

mine whether the outer parts of a rod or ring screen the inner portions against magnetization, split a ring into halves and bored holes, so that on recombination a hollow ring was formed. The surface was given various thicknesses, and it was found that in all cases the inner layers acquired the same magnetization as if exposed directly to the field. Weiss ("La Nature," June 18) has discovered that magnetic pyrite can be magnetized only in one plane, which he calls the "magnetic plane." The large hexagonal crystals from Minas Geraes show the phenomenon most clearly.

Torsion.—The following laws are established by Moreau ("Journal de Physique," March): (1) "At a point of a twisted wire outside the magnetic field the magnetic torsion is proportional to the torsion of the wire, to the square of the intensity of the field, if the field is weak and is independent of the diameter of the wire; (2) for points on different sides of the field the magnetic torsion has equal and opposite values if the ends of the wire are symmetrically placed with regard to the field; (3) along the length of the wire the torsion increases proportionally to the distance from the nearest end; it attains a maximum at the edge of the field and vanishes inside the latter. Knott (Edinburgh Royal Society, June 6), after an exhaustive review of the subject, concludes that the system of stress required to maintain the complicated state of strain in magnetized bodies can not be accounted for by any recognized theory connecting magnetism and stress.

Hysteresis.—Van Huffel (Amsterdam Academy of Sciences, Nov. 27, 1897), in experiments on a long soft bar of iron, finds that when a primary circuit in the middle is closed the rate of change of induction reaches a maximum at a certain distance from the middle and that this maximum moves outward toward the ends. Niethammer (Wiedemann's "Annalen," September) finds that the loss of energy in alternate-current hysteresis is greater than in magneto-static hysteresis. It is nearly the same for sinusoidal and flat curves, but less for pointed curves for the same maximum induction. Fromme (Wiedemann's "Annalen," May) explains the fact that magnetic after-effect or "creeping" diminishes when the reduction of the field to zero takes place rapidly by supposing the molecular magnets to be thereby thrown into more violent commotion, whereby they are better able to reach stable positions. Heat or mechanical stress may produce a similar effect.

Temperature Effect.—Ashworth (London Royal Society, Dec. 9, 1897) finds that the influence of chemical constituents in determining the magnetic behavior of iron under changes of temperature is subordinate to that of physical condition, such as annealing. Thus a kind of nickel steel exhibited in the glass-hard state a small increase of magnetic intensity with rise of temperature and a decrease with fall of temperature. When annealed the converse was the case. Steel music wire exhibits a negative coefficient, the higher and lower intensities corresponding to higher and lower temperature, but it can be made positive by annealing and by careful management can be rendered just zero. The longer and thinner the wire, the more negative is its coefficient, and it may be even made zero, or positive, simply by altering its dimensions.

Measurement.—Bouty (Paris Academy of Sciences, Jan. 17) measures the intensity of a magnetic field by allowing a liquid conductor to flow normally to the lines of force and measuring by the capillary electrometer the constant electro-motive force induced in the liquid. By increasing velocity of flow, the sensitiveness of the method can be increased almost indefinitely.

Miscellany. *Elastic Support for Physical Instruments.*—Broca ("Journal de Physique," October) points out that when galvanometers or other apparatus having movable parts are supported on India rubber the disturbances, far from being reduced, may in some cases be increased tenfold, owing to synchronism between the periods of free oscillation of the supported apparatus and the period of disturbance, which the rubber supports only intensify. On the other hand, when the apparatus consists only of rigid parts, as in optical experiments, there is no better way of insuring steadiness than by placing the instruments on a heavy table whose legs rest on blocks of rubber.

PHYSIOLOGY. The doctrine of a vital force, conferring peculiar properties and powers upon organized matter which are dependent on the continuance of life and cease upon its extinction, after having been contradicted and rejected by the mass of biologists and physiologists, has been revived within a few years past, and has found a number of able exponents. Among these is Dr. Lionel S. Beale, who has published an elaborate defense of the theory. He maintains the conclusion, arrived at as the result of observations carried on for more than forty years with high magnifying powers and experiments, that every living thing and everything that has lived in the past is or has been "absolutely dependent for existence upon the operation of vitality—a power manifested by living beings only," and capable of overcoming "all ordinary forces and properties of ordinary matter," and preventing for the time being their operation. He further holds that the more minutely investigation has been carried on the stronger has become the evidence in favor of vitalism. He denies the conclusions of physiologists who affirm the purely chemical and physical view of life and of all living matter because they are based upon experiments, not on living matter, but on matter that *was* living and had lost its vitality when it was examined. He gives the name of *Bioplasm* to this living matter, in its original structureless state, from which all the forms of life have been developed, and assigns to it powers not possessed or exhibited by matter in any other state or under any other known conditions, such as those "of directing, moving, governing, and rearranging material particles; powers of analysis and preparing for synthesis; powers of preparing for and providing for, and as if they were foreseen, future changes and developments." The author supposes the living matter in fully formed organisms to be inconspicuous, and in specimens prepared by some methods not seen at all; vital power to be imparted to non-living matter only when the latter is infinitely near to matter that lives, while it does not appear to exert any influence upon matter separated only by the very slightest space; bioplasm or living matter invariably to proceed from bioplasm that existed already, and not to be capable, so far as is known, of coming from the non-living, while there is no gradual change from one state to the other; and all vital phenomena to be absolutely different from any physical phenomena. The author further denies the possibility of producing bioplasm artificially.

Respiration.—A course of experiments on life at high altitudes, made on Monte Rosa, at the height of 14,592 feet above the sea, is described by Prof. Angelo Mosso in the book "Fisiologia dell'uomo sulle Alpe." The researches were carried out with special physiological apparatus, some of which was designed particularly for this special class of studies. Some of the figures obtained indicate that there is a normal physiological dilatation of the heart during a mountain ascent. Many traces were taken of the respiratory

movements, among them some giving a record of the onset and culmination of a fainting fit. Phasic respiration, or "Cheyne-Stokes breathing," appears to be common at great heights, and is especially well seen during sleep. In one case the respiratory phases are separated by complete cessation of movement as long as twenty seconds. The respiratory organs tend to pause at the end of expiration. The diminution of stature which always takes place during the day is augmented by a mountain ascent. The author represents that much more work can be accomplished at an altitude of 14,800 feet than at the sea level, and that there is no increase in the frequency of the respiratory movement; indeed, both the frequency and the amplitude may be diminished, or with a frequency exactly like the normal the amplitude may be less. The unexpected statement is made that on the summit of Monte Rosa the rate of breathing was not always altered, even by fatiguing muscular work. This seems to be because while on the plains the organism takes in a quantity of oxygen which is more than sufficient for its immediate needs, the breathing is not augmented at great heights, since, though less oxygen is actually consumed, it is enough, and more than enough, for the needs of the organism. The experiments of Loewy and Leo Zuntz, on the other hand, show that on mountains, when a height of 8,900 feet is reached, even at rest there is a slight increase in the gas exchanges and in the rate of breathing, while there is a great increase of both at the height of 14,800 feet. Prof. Mosso believes that mountain sickness is due to an actual diminution in the quantity of carbonic acid in the blood, assuming in his theory of *acapnia* that this gas is the normal exciting agent for causing a discharge from the nerve cells in the medulla oblongata. Some of Prof. Mosso's conclusions are opposed to views previously held, or differ from those resulting from the experiments of others, and are regarded as subject to criticism or needing further verification.

It being a fact of common clinical experience that the most varied types of disease involve some damage to the lungs, with consequent increase of the danger to life, the functional variations in the process of oxygen absorption by the lung have been investigated, so far as they are of a physiological nature, by J. Haldane and J. Lorrain Smith. Studying conditions affecting the organism as a whole, as the state of fever and the accompanying infective process, and conditions in which the important element is some gross change in the lung tissue itself, the authors find that the oxygen tension of the arterial blood leaving the lungs is lowered to about that of the alveolar air by the general pathological processes that ordinarily occur in fever, and in particular by rise in temperature and by toxic agents of bacterial origin, and that the oxygen tension is also lowered by pathological changes occurring in the lungs locally as a result of irritation by high-pressure oxygen. The lowest tension observed in the cases where the animal was suffering from some general condition were on the whole higher than the lowest tensions observed when merely local changes in the lungs had been brought about. The observations of oxygen tension showed that interference with active absorption through the lung epithelium forms an integral part of many conditions of disease directly or indirectly associated with the lungs. The fact that the pathological conditions referred to tend to reduce the oxygen tension of the arterial blood to about that of alveolar air affords striking confirmation, the authors remark, of the conclusion that the absorption of oxygen by the lungs is an active physiological process and can not be explained as due simply to diffusion.

M. E. Wertheimer and M. Lepage represented to

the International Physiological Congress that in experimenting upon the accelerator nerves of the dog they had observed the hitherto unnoted fact that the acceleration, instead of being uniform and constant, as is usually represented, is discontinuous and interrupted occasionally by notable slowings and even intermittence of the pulsations. The phenomenon is regarded as simply a manifestation of respiratory irregularities in the heart of the dog, as may be determined by experiment, when the arrests and remissions of the acceleration are found to take place during expiration and the expiratory pause. The alternations may be accounted for when we recollect that the tonic activity of the pneumo-gastric diminishes during inspiration and increases anew during expiration. The authors regard the mechanism they describe as a means of protection against overworking of the heart in cases where anything tends to produce an excessive augmentation of the frequency of its beating.

With an instrument called a phonendoscope MM. Regnault and Bianche have studied the modifications impressed upon the thoracic organs by the movements of bicycling. Applying the apparatus to three champions in a race before the race took place, during its progress, and a few days afterward, they found that the abdominal organs, particularly the spleen, liver, and stomach, were much contracted, the fat under the skin was melted, but the heart and lungs escaped considerable contraction through the flow of blood provoked by the exercise. The continuous movements of the legs and the pelvis, together with the bent attitude, lifted all the abdominal organs upward, and these in turn raised the lungs and the heart, especially the right lung, which is so near the liver. The pyloric extremity of the stomach was raised, giving the organ the form of a wallet and causing the food to remain longer within it. In a similar way the heart was pushed up toward the neck. The extent of these evident displacements ranged from two to five centimetres.

M. F. Lalaine communicated to the International Physiological Congress the results of numerous experiments which he had made to determine the source of animal heat. His method was that of comparing the heat actually produced by the animal with the heat calculated from the combinations effected by the animal while it was sojourning in the calorimeter. The results pointed to the conclusion that, in every case and under whatever conditions, the heat produced by the animal was equal to the heat calculated from the amount of oxygen consumed by it during the same time.

Circulation.—In experiments on heart nutrition, reported to the International Physiological Congress, W. T. Porter found an atmosphere of oxygen to be of advantage in maintaining the contractions of the mammalian heart. A heart fed simply through the veins of Thebesius and the coronary veins will maintain strong rhythmic contractions for many hours if supplied with oxygen at high tension. The same took place when under similar conditions the heart was fed with blood serum alone. Further experiments seemed to permit the conclusion that even isolated portions of the mammalian ventricle supplied through their nutrient arteries with a small quantity of serum at very low pressure would maintain rhythmical, long-continued, forceful contractions when surrounded by oxygen at high tension.

Observations made by Leonard Hill with the Hill-Barnard sphygmometer upon arterial pressure under different conditions indicate that a fall of arterial pressure is concomitant with bodily rest and quiet mental work just as much as with sleep. On rising from bed in the morning and moving about the pressure rises from 10 to 20 milligrammes Hg. as

is constantly the case with muscular activity. If the resting position be once more assumed, the pressure soon falls back to its old level. A rise of pressure is produced by muscular labor, while after such exertion the pressure falls to normal far more rapidly than the pulse frequency. The arterial pressure becomes depressed below the normal resting pressure after severe muscular work. The pressure in the standing posture is constantly higher in the morning. As no noteworthy acceleration of the pulse accompanies the rise in pressure, it is accounted for as occasioned by the activity of the vasomotor mechanism. This overcompensates for the influence of gravity. In the evening, if the body be fatigued, the conditions are reversed. Not only is the pressure generally the same in the two postures, horizontal and standing, but in the standing posture the pressure is maintained by a considerable acceleration of the heart. So far as the author's experience goes, it is only during very excessive fatigue that the pressure becomes lower in healthy individuals in the standing posture. The arterial pressure may be raised 20 milligrammes Hg by plunging into a cold bath. If the subject sits perfectly quiet in the bath the pressure returns to that level which is normal for the resting position, and this will happen in spite of the fact that the subject may be shivering with cold. In a hot bath the pressure falls hardly below that level which is normal to the resting horizontal position. On rising from a hot bath the pressure rapidly reaches that height which is normal to the standing position. Thus, although the skin is flushed with blood after the hot bath, perfect compensation for the influence of gravity is brought about by visceral constriction and cardiac accelerations. The influence of meals on the arterial pressure seems to be slight. Tea raises the pressure; a moderatedose of alcohol may slightly lower it.

Prof. Charles Livon described to the International Physiological Congress experiments indicating that organic extracts produce effects on the blood tension that vary according to the gland with which the preparation is made. Thus extracts of the suprarenal capsules, the spleen, the pituitary body, the parotid of the sheep, etc., on injection produce intravenous hypertension, while those made with pancreas, thymus, the liver, the testicle, the ovary, etc., produce hypotension. The author has made further experiments, not yet completed, which indicate that modifications of its action upon blood tension are produced in the blood which traverses the several organs; and that this blood in passing through the organ becomes charged with special properties of tension action according to the organ.

As the results of the examination of certain "small, generally round, colorless granules," which M. F. Müller, of Vienna, described in 1896 as occurring in the freshly drawn blood from healthy and from diseased persons, Dr. W. R. Stokes and A. Wegefast, of Baltimore, find that "in the blood plasma and serum of man and many of the lower animals there are present varying numbers of granules which resemble the granules of the eosinophilic and neutrophilic leucocytes in size and appearance. After addition of dilute acids, dilute alcohol, etc., and subjection to body temperature, the granules of the leucocyte assume marked activity, and such treatment increases the number of granules present in those fluids. These free granules are almost certainly derived from the granular leucocytes. The filtration of the serum of the dog and rabbit through new Müncke porcelain cylinders removes its normal property of causing the agglutination and cessation of motility of many motile pathogenic bacteria, and of destroying large numbers of these organisms. This property can be partially

restored by adding a sediment consisting of leucocytes, free granules, and blood corpuscles. Since the red blood corpuscles are not germicidal (Büchner), it follows that the restoration of the bactericidal property is due to the addition of the leucocytes and free granules, and that these cells can furnish a germicidal material." The authors suggest as a hypothesis, which, however, they are not able to prove, that the bactericidal power of the leucocytes of the blood and of the serum of man and many animals is due to the presence of specific granules, especially the eosinophilic and neutrophilic. They think that the granular leucocytes, when called upon to resist the action of invading bacteria, may give up their granules to the surrounding fluids or tissues; and consider that this theory explains how apparently cell-free fluids can destroy bacteria.

An albuminous substance which he calls globin has been separated by Dr. F. N. Nichols from hæmoglobin, derived from the blood of a horse by a process the principal steps of which include treatment with hydrochloric acid, the formation of a watery, alcoholic solution, and precipitation with ammonia. The globin thus obtained differs in behavior from albumin in that it is precipitated by extremely cautious addition of ammonia, but is redissolved in an excess of the alkali; while if the solution has been previously acidulated with hydrochloric acid, the addition of ammonia still occasions a precipitate, but the globin is no longer redissolved in an excess of ammonia. Globin quickly undergoes digestion with pepsin and hydrochloric acid, and in the course of four hours is converted into true peptone. When subjected to the action of trypsin it yields leucin but no tyrosin. Its percentage composition is C 54.97, H 7.20, N 16.89, S 0.42. The ashes contain oxide of iron, probably an impurity. From its having been obtained from hæmoglobin partly through the agency of hydrochloric acid, the author regards it as a substance pre-existing in the form of a salt or etherlike compound. A third body is also obtained on the breaking up of hæmoglobin, which has not, however, hitherto been isolated. In its essential characteristics it resembles histon, but when coagulated by boiling differs from other true products of coagulation in the remarkable facility with which it dissolves in acids; and, unlike the nucleo-histon of Lilienfeld, it does not inhibit the coagulation of the blood. When injected into a vein it appears in the urine. Dr. Schulz suggests that many cases of albuminuria may depend upon the excretion or elimination of globin. The hæmoglobin of the dog gave a globin which in all respects resembles that of the horse, while the hæmoglobin of the goose behaves differently.

In experiments by F. Voit on the behavior of different kinds of sugar in man after subcutaneous injection, solutions of mono-, di-, and poly-saccharides were used and the urine was examined for the presence of the injected or any other sugar. By using this method of subcutaneous injection, the disturbing influence of digestion was avoided. In the first instance 11.24, in the second 60, and in the third 100 grammes of grape sugar were injected in solutions containing 10 per cent. of the sugar. Only in the third experiment, 2.64 grammes of sugar were excreted by the urine, in the second experiment only traces of it, and in the first none. Similar large quantities of fruit sugar and galactose were disposed of in the body. Among the mono-saccharides the non-fermentable sugar sorbinose was tried, with the result that after the subcutaneous injection, 36 per cent. of the quantity administered appeared in the urine. Of the pentoses, arabinose, and xylose, about half was disposed of in the body,

and of rhamnose about 14 per cent.; while the remainder was eliminated unchanged. When these pentoses were injected by the mouth, a larger portion was disposed of, and the possibility was suggested that this sugar may be to some extent destroyed or altered in the stomach. Of the disaccharoses, cane sugar and milk were completely excreted as such by the kidneys; and since, when taken into the stomach, they are both used up to a greater or less extent, the conclusion is obvious that only the intestine is competent to effect their decomposition and render them serviceable. On the other hand, the third disaccharide, maltose, was completely disposed of when injected subcutaneously. Trehalose, which is isomeric with maltose, was retained in the body to the extent only of 85 per cent. These results agree well with those of E. Fischer on the action of blood serum on the different kinds of sugars outside of the body. They also show that the aldehyde nature of the different sugars does not form a measure of their destructibility, since milk sugar, in spite of its aldehyde nature, is not destroyed, while trehalose, which is not an aldehyde, is, and further, that the greater or less facility of the breaking up of a disaccharide does not coincide with corresponding behavior in the body. Thus, cane sugar, which inverts easily, passes unchanged through the body, while the contrary holds for trehalose. Raffinose, which is a trisaccharide, was found in two experiments to be destroyed to about 35 per cent., while it is unaffected by blood serum outside the body. The portion not destroyed reappeared in the urine as raffinose. Of the polysaccharides, so called, glycogen was completely destroyed so that it did not reappear in the urine either as glycogen or as sugar. Achroödextrin, erythroöextrin, and amyloöextrin (soluble starch) were used up in the body to the extent of about 75 per cent. of the quantity subcutaneously injected. M. Voit expresses the opinion that just as in Fischer's experiments outside the body, in order to effect thorough fermentation of sugar, its antecedent splitting up into mono-saccharides is necessary, so the animal economy is not able to burn off the higher sugars until they have been broken up into their components.

Arsenic is known to have a remarkable effect in increasing the number of red blood corpuscles, in some cases of pernicious anæmia, of leucæmia, and of lymphadenoma, although the blood condition in these diseases is often not perceptibly improved by its administration; and similar effects are observed in other diseases in which it has been administered. In chlorotic anæmia, where it is given along with iron, it does not appear when given alone to produce this effect; and in health it is incapable of increasing the number of red corpuscles above the physiological maximum—a fact which is equally true of all other tonic or dietetic measures. An investigation made by Ralph Stockman and E. D. W. Greig, with the aid of a grant from the British Medical Association, was undertaken with a view to the explanation of the effects of arsenic on blood-corpuscle formation in those diseases in which it has proved of value clinically. The experiments, made upon young and adult rabbits and upon young dogs, point very conclusively to a stimulation of the bone marrow as the method of action of arsenic as a hæmatinic in pernicious anæmia and other morbid conditions. In these cases, however, although it may increase the number of blood corpuscles, it does not, so far as the authors can see, affect the real cause of the disease. It must therefore be regarded as a purely symptomatic method of treatment.

The leucocytes of the blood of dogs into whose veins minute quantities of mercuric perchloride had been injected when examined by M. Henry

Stassano showed, after careful separation, the presence of a perceptible amount of mercury. It appeared from the experiments that the leucocytes are the exclusive agents of transportation and absorption of mercurial compounds in the circulation.

W. M. Bayliss represented in a paper communicated to the International Physiological Congress that he had found no law of opposition between the visceral and the cutaneous vascular reflexes. The opposite results obtained by Grützner, Heidenhain, Dastre, Morat, and others he regarded as due to their not having sufficiently taken account of the passive changes in peripheral parts due to rise and fall of blood pressure. The author had been able to show by means of an artificial schema that a slight constriction or dilatation in one part arranged in multiple arc with a larger part might be overcome by a simultaneous constriction or dilatation of the larger part, and thus, although the muscular net of the vessels in the limbs, etc., may be in a state of contraction, the large simultaneous rise of arterial pressure due to contraction in the arterioles of the viscera forces even more blood through the limbs than in the normal state, and this causes an increase of the volume.

A paper by Mr. Hamburger in the Royal Academy of Sciences, Amsterdam, showed that venous propulsive pressure promotes in a high degree the destruction of *Bacilli anthracis* and their spores, which have been introduced under the skin.

Digestion.—The results of the researches of Dr. Aitchison Robertson on the process of amyolysis by ptyalin in mixed diets are of interest as having a direct bearing on the selection of a proper diet for invalids and infants. The author began by endeavoring to ascertain the quantity of saliva which he secreted with different articles of diet by weighing the portions, masticating them, and then, instead of swallowing them, ejecting and reweighing each bolus. With a dietary which he describes in detail, he found that he secreted the total amount of 400 grammes of saliva a day. Rinsing out the mouth with tepid water greatly promoted the flow of saliva; hence tea, though it contains tannin, rarely causes amylaceous dyspepsia, the excess of ptyalin counteracting the action of the tannin. Brandy, whisky, and beer are sialogogues, as also are sweets. Mechanical irritation of the buccal mucous membrane and movement of the jaws, as in speaking, cause an increase of saliva. Considerable daily variations were observed in the secretion. Many experiments, the details of which are recorded in the author's paper in the "Journal of Anatomy and Physiology," were made on mixtures of starch with different food constituents and beverages. Among other conditions, the author satisfied himself that porridge and milk form a more digestible compound as far as amyolysis by saliva is concerned than other combinations of oatmeal; that the more broken down and moist the starch particles are, the more rapid and extensive is the amyolysis. Bread in a light and spongy condition is more rapidly acted upon by saliva than less spongy bread, though the ultimate digestion is not more complete. Milk has a retarding influence on the salivary digestion of starch in bread, while broth has little or no effect. Tea and coffee have an inhibitory influence on amyolysis, but coca has little or none. Beer promotes the salivary digestion of starch. Alcohols, speaking generally, retard it even in dilute solution, wines appearing to have this influence chiefly owing to their acidity.

Many experiments, particularly those of Czernay and Kaiser, Pachon, Carvallo, De Filippi Monari, Ludwig and Ogata, go to show that dogs may live and be nourished and thrive after removal of their stomachs. The operation of the total extirpation

of the stomach in the human subject has now been successfully performed by Dr. Carl Schlatter, of Zurich, and followed by the union of the œsophagus with the jejunum and an apparently complete restoration of health. The patient was a woman fifty-six years of age afflicted with a malignant tumor in the stomach, while the conditions were such as not to permit of the successful application of the ordinary processes. Although the operation was a long one, occupying considerably more than two hours, the patient did not suffer seriously from shock and made an excellent recovery. She quickly regained the power of taking even solid food, and gained eleven pounds in weight during the course of the next six weeks. It having been found after the operation impossible to approximate the duodenum and the œsophagus, the duodenum was closed by careful suture, and the œsophagus was united to the jejunum about a foot below its origin. This direct union of the œsophagus and jejunum proved quite satisfactory, although a few instances of vomiting occurred, which were, however, ascribed to mistakes in the administration of food. As a rule there was no regurgitation into the mouth of the contents of the intestine, and the intestinal secretions were able to deal so satisfactorily with the various elements of an ordinary mixed diet that the excretions showed no marked deviation from the normal beyond the diminution of chlorides in the urine. The albumins of the food proved to be digestible without the aid of the gastric juice, and the bowel after a short time adjusted itself to the reception of a moderate meal direct from the mouth. Even the vomiting showed that that symptom may occur independently of the stomach, of which some authors have regarded it as a function. "The scientifically and practically important question," Dr. Schlatter concludes in his paper, "whether the total removal of the stomach in the human subject is compatible with a continuance of life has, with great probability, been answered in the affirmative by the case which has now been briefly narrated. The stomach is essentially an organ for the protection of the intestine, mitigating or removing such properties of the food as might have an injurious influence on the intestine. Provided that the food is of suitable quality, the intestine is quite competent to perform the chemical work of the stomach."

Both bile and pancreatic juice are found, in the general result of experiments, greatly to aid the absorption of fat in the intestine. Investigations by R. H. Cunningham as to the effect of the absence of these secretions show that some absorption of fat other than the natural emulsified fat of milk still occurs under that condition. The rate of absorption is much slower and the quantity absorbed is very much less than in the normal state, when both the bile and the pancreatic juice are present to act upon the vegetable cells. Their absence from the intestine does not, however, prevent the intestinal epithelial cells from ultimately absorbing fat, apparently by a process that is indistinguishable from that occurring in the normal state.

While preparing an aqueous extract of the pancreas of a pig, M. Eugène Choay made comparative experiments with it and commercial pancreatin. He found the proteolytic power of the extract far superior to that of the commercial article of a brand very well known in pharmacy. The same was observed with regard to the power of liquefying starch paste. Other experiments were made in its action on fibrin, starch, and fat, and the conclusions drawn are that it is of great importance to assay all pancreatins; that the aqueous extract of pancreas concentrated in a vacuum at a low temperature is an excellent preparation; and that pan-

creatin prepared according to the Codex has the same activity as the aqueous extract on proteic and amylaceous materials. They differ from that prepared in a vacuum only in that their power of saponification is greater.

From an investigation as to how far a glucoside constitution can be held to cover the whole range of proteids, A. Eichholz finds that three substances can be separated from white of egg, each of which is capable of yielding an osazone corresponding to glucosazone. These substances are, in the order of their solubility, ovomucoid, egg albumin, and ovomucin. Ovomucin has not been heretofore definitely described. Egg albumin has been regarded as a glucoproteid by Pavy and Krankow, while Möerner failed to obtain any osazone from it. Ovomuroid has been shown by Möerner and Krankow to yield on hydrolysis a powerfully reducing substance, but neither obtained from it an osazone-yielding product. Serum proteid as a whole is capable of yielding an osazone after hydrolysis. Purified serum albumin does not yield any osazone on hydrolysis, and the glycoproteid reaction of serum proteid as a whole appears to the author to depend on a portion of the globulin precipitated from the diluted serum by acetic acid, which on hydrolysis gives a very definite reducing and osazone reaction. Pure casein resembles serum albumin in its absolutely negative reaction to carbohydrate tests after hydrolysis. The author regards as the fact of primary importance appearing from the experiments and results the wide distribution, both qualitative and quantitative, of the class of bodies known as glycoproteids. "It is probable that every tissue containing proteids will be found to contain some admixture of glycoproteids. While agreeing with Dr. Pavy as to the importance of this class of compounds, I am unable to agree with him in considering that all proteids are glycoproteids, since pure serum albumin and pure casein resist all attempts to produce from them a definite osazone-yielding sugar. I should be inclined, as the result of the experiments given above, to classify proteids primarily as pure proteids and glycoproteids."

Some conclusions published by Prof. F. R. Fraser in 1897 concerning the antidotal properties of the bile of some animals against the toxins of such diseases as diphtheria and tetanus, and especially of the bile of nocuous serpents against snake bites, have been fortified by further experiments. From these the author finds that the bile of nocuous or venomous serpents is the most powerful antidote to venom, and is followed in efficiency by the bile of innocuous serpents, while the bile of animals having no venom-producing glands, although it is definitely antidotal, is less so than the bile of innocuous serpents, and much less so than the bile of nocuous or venomous serpents. The bile of the venomous serpents examined was also found to have more antidotal power against the toxins of disease than the bile of the majority of non-venomous animals. Among non-venomous animals, the rabbit produced a bile definitely superior to the others against both toxins and venoms.

A proteolytic ferment has been found by Mlle. Em. Bourquelot and H. Herissey in the fungi *Amanita muscaria* and *Clitocybe nebularis*, the action of which is analogous to, if not identical with, that of trypsin.

Secretion.—Among the results of further studies by R. Hutchinson on the chemistry and action of the thyroid gland, it appears that the percentage of iodine in the colloid matter varies considerably, but amounts on the average to 0.309 per cent. of the dried substance. Of the products of the digestion of the colloid matter, only those which contain iodine are active, and the degree of activity of each

is roughly proportional to the amount of iodine present; but activity is not increased by artificially increasing the proportion of the iodine. The proteid-free body can be made to take up an additional quantity of iodine equal to what it already contains, but the activity of this product has not yet been tested. Intravenous injection of a solution of the colloid matter has no effect on the blood pressure or the heart. The fall of blood pressure which results from the injection of thyroid extracts is due mainly to one or more of the organic extractions present, and in a less degree to the presence of mineral salts. Previous removal of the ovaries or testes has no influence upon the results of thyroidectomy, and ovarian feeding has no curative influence in myxœdema. The author has not been able to find any evidence of the presence of a poison in the bile or central nervous system of animals suffering from the effects of thyroidectomy. Of 24 consecutive cases of complete removal of the thyroid, only 4 of the animals survived. The percentage of survivals can be raised by thyroid feeding, but only to a small extent. Parathyroid feeding has no effect in myxœdema. Keeping animals (dogs and cats) warm after thyroidectomy does not delay the onset of the acute symptoms, nor does it modify their course.

In his experiments upon the functions of the suprarenal capsules made upon the frog, M. P. Langlois used a red-hot platinum wire for the destruction of one or both capsules. He found that death invariably follows the destruction of both capsules, though not of one alone. As reasons for believing that the fatal issue is due to the suppression or abolition of an organ essential to life, and not to the shock of the operation or to any inhibitory action exerted, the author adduces the facts that no marked symptoms are observed during the first twenty-four hours after total destruction; that the fatal result is postponed when the destruction is incomplete; and that the subcutaneous insertion of fragments of the kidney with the capsules prolongs life, though such a proceeding would be without influence on the phenomena of inhibition. The average duration of life after the operation of extirpation of the suprarenals is about forty-eight hours, but in winter, and in the hibernating frog, life may be prolonged for twelve or thirteen days. The first symptoms observed after the operation were a kind of apathy and indisposition to move, even when irritated; then ensued inco-ordination of the movements, especially of the hinder limbs, followed by complete paralysis, and succeeded by a similar sequence of events in the fore limbs; the respiration became slower, the pupils contracted, the cardiac contractions became feebler, and the circulation less active, and the animal died. Further experiments led to the belief that the death of the animal was not due to any disturbance of the renal functions. The author believes that after the removal of both suprarenals a true auto-intoxication takes place, the animal generating poisons which, being normally either destroyed or changed in the gland, or by some material formed by the gland, are now poured into the blood.

Experiments by Snaie Vincent indicate that in cats and dogs, at all events, the active principle of the suprarenal capsule is not absorbed when taken into the stomach.

A new way of counting the sudoriferous glands in the human subject devised by Dr. Eijkmann, of the Dutch Colonial Service in Jamaica, includes covering the subject, after he has been thoroughly washed, with an alcoholic solution of fuchsin, and drying. A sheet of fine white paper is applied for a few minutes in such a way as to avoid creases and folds. On removal, the paper will be found thickly

studded with red stains, each stain representing the aperture of a sudoriferous gland. The fuchsin has no effect upon the parts that keep dry, but wherever the paper has been moistened by a drop of perspiration there will be a mark. A whole series of "proofs" may be taken in this way without any need to renew the fuchsin. In determining the number of glands the system adopted for counting the red corpuscles of the blood may be followed. Dr. Eijkmann examined in this way the skin of various parts of the bodies of two Malays and three Europeans. He found as an average for the whole body 160 sweat glands per square centimetre in the former and 162 in the latter. But the distribution varied greatly according to situation, the hand and the brow being the parts most thickly studded.

An elaborate series of researches on the bile pigments of the higher animals and in some of the invertebrates has been carried on by M.M. Dastre and Floresco, by which they have satisfied themselves that bilirubin or bilirubinic acid does not exist free in bile, except, perhaps, in some strongly pigmented kinds like that of the pig, but that its occurrence is in combination with sodium as a neutral bilirubinate, for bilirubin is insoluble both in normal bile and in the decolorized bile of Plattner; moreover, the alkaline bilirubinate, contrary to the statement of Stædeler, are only to a small extent soluble in water, while they are readily soluble in the alkalies and the alkaline carbonates. Bile is, in regard to the nature of its fundamental pigment, a solution of sodium bilirubinate in the alkaline carbonates. The second principal bile pigment, green pigment, biliverdinic acid, is in similar case. It is, however, slightly soluble in normal bile, and in decolorized bile, whether neutral or acid. It exists in the bile principally in the state of sodium biliverdinate dissolved in the carbonates. Solutions of bilirubin do not absorb oxygen from the air to pass into the condition of biliverdin. This absorption occurs only with the bilirubinate in becoming biliverdinates. The color of solutions of the fundamental pigment depends on the quantity of the pigment, and varies from a deep red containing $\frac{1}{1000}$ or more to a pale yellow, which is always the color of neutralized solutions. In normal bile taken from the gall bladder the authors have discovered two other intermediate pigments which they have named biliprasinic pigments. One of these is yellowish brown, and is the biliprasinate of soda. It is converted into biliprasin or green pigment by a current of carbon dioxide and by acetic and most other acids, especially in presence of alcohol. It is not stable *in vacuo*, but is decolorized by the action of light, and when exposed to air and light it becomes green, changing to sodic biliverdinate. It exists in some yellow biles. The second biliprasinic pigment—biliprasin—is green. It differs from biliverdin—that is, the biliverdinates—in becoming yellow (forming biliprasinates) on the addition of a few drops of alkali, and in becoming red (forming bilirubinate) on exposure to a vacuum. It is slightly soluble, especially in liquors charged with carbon dioxide. It constitutes the ordinary pigment of the bile of the calf, of the fresh bile of the ox, and of the bile of the rabbit. The two pigments have the simple relation to one another of the yellow one being an alkaline salt of the green one, and they are converted into each other by the alternate action of acids and of alkalies. This is contrary to what occurs with bilirubin and the bilirubinate, which are equally yellow, and with biliverdin and the biliverdinates, which are equally green. Hence, contrary to what is usually stated, yellow bile can become green without oxidation. True biliverdin is less common than is supposed in bile. The biliprasinic pigments are intermediate to the fundamental pigments, bilirubin

and biliverdin, in point of oxidation and of hydration. Those processes affecting the original fundamental pigment of the bile, bilirubin, begin possibly in the hepatic cellules and in the biliary ducts, and certainly go on in the gall bladder, but the artificial conditions for this change are not here realized. Hence the hypothesis of an agent or condition for inducing oxidation (hepatic oxidasis). In the invertebrates the authors distinguish pigments soluble in water and pigments soluble in chloroform. The former pigment is named by them "ferrine," and contains iron combined with some proteid. The pigment, soluble in alcohol and chloroform, contains no iron, and appears to be identical with the chlorophyll of plants.

In studies of the relation of the degree of acidity of the urine and the percentage of uric acid contained in it to the precipitation of the uric acid in the form of gravel, W. J. S. Jerome finds that the urine may be made to deposit uric acid, in healthy persons through the ingestion of a sufficient quantity of food rich in nuclein; that some urines, after an ordinary diet, have an abnormal tendency to the precipitation of uric acid; and that this tendency is not always due either to the presence of a high degree of acidity, or to a high percentage of the uric acid in the urine, or to the coexistence of these two conditions, however much such conditions may favor the precipitation.

In experiments to determine rather the sequence than the nature of changes in urine resulting from exercise, G. C. Garrott found that rapid but not laborious exercise taken by a man in good muscular condition, on ordinary diet and unrestricted fluids, to a degree just short of the production of excessive fatigue may be expected to produce some such results as (1) an excretion of urea rising to a maximum of possibly double the normal in about twelve hours, and only regaining the usual level after about thirty hours have elapsed, the increase beginning immediately after, but not during the exercise; (2) an excretion of uric acid rising to a maximum not greatly above the normal within six hours, and then falling rapidly if the condition of the subject be good and his food sufficient, but rising to a higher maximum and falling slowly if his condition be poor and food deficient; evidence that the rise in this excretion occurs during the exercise or precedes that of urea is wanting; (3) an increased excretion of acid, possibly during, and certainly immediately after the exercise, less than that of urea, but following the same course; (4) an increased excretion of phosphates, certainly not during the exercise, but immediately after, distinctly less than that of acid, and therefore small, but on the whole accompanying that of the latter; (5) an increased excretion of sulphates, proportionate to that of urea, but of less duration, and therefore of more intensity, this increase commencing during the exercise, and reaching a maximum of possibly three times the normal within six hours, and probably earlier, but terminating in twelve or fourteen hours; (6) a decrease in the excretion of chlorides, and the extent of which will vary directly with the amount of sweating, and inversely with the condition of the subject in relation to the exertion he is called upon to make. Profuse and prolonged sweating induced by Turkish baths at high temperatures may be expected to produce a reduction in the secretion of urine, hardly to be prevented by drinking much water; and a reduction in the excretion of chlorides—not, however, necessarily considerable. It must not be expected to produce any noteworthy effect on the excretion of urea, uric acid, urinary acid, phosphates, or sulphates.

Experiments by F. G. Hopkins and W. B. Hope on seven individuals confirm the statement of F.

Mares, made in 1887, that during the period of increased nitrogen excretion that follows a meal the increase of uric acid is of briefer duration than the excretion of urea and occurs characteristically in the earlier hours of the hyperexcretory period, a fact which is difficult to reconcile with the view that the uric acid takes origin from the nucleins of the diet, upon which the earlier stages of digestion have only a minimal influence. It is suggested by the authors that of the total quantity of uric acid normally excreted, that portion which bears a more immediate relation to food does not arise from nucleins, but from some more soluble constituent of the diet acting either as a direct precursor or as a factor in a synthetic process.

Experiments were described to the International Physiological Congress by Dr. Bédart, of Lille, in which, subjecting the skin of the mammary region of a number of women whose milk had gradually fallen off or even failed on one side to electrical excitation, he had succeeded in five cases out of eight in restoring the secretion durably. In two cases a breast which had failed began again to secrete milk. With an average of four or five sittings of ten minutes each the density of the milk was usually increased, and the nutrition of the child improved.

Muscular System.—At the meeting of the International Physiological Congress F. J. Allen showed that by the use of a very sensitive stethoscope he had ascertained that muscle, as such, makes no sound during contraction. But if the movement of the muscles is communicated to a membrane capable of sonorous vibration—the *membrana tympani*, for example—a sound may be produced even by a single muscular twitch. In order to produce an audible vibration the twitch must be sudden. Slowly contracting muscles produce no sound, as in plain muscle or cold-blooded heart muscle. Other muscles produce sounds whose intensity is in proportion to the suddenness of their contraction.

In a communication to the International Physiological Congress of the results of his studies in the frog, the turtle, and the cat of the process of muscular fatigue, Dr. Frederick S. Lee represented that the phase of contraction is lengthened greatly in the turtle, slightly in the frog, and apparently not at all in the cat. The one factor in the phenomenon of fatigue that is common to these species is the diminution of the lifting power of the muscles, and this must be regarded as the essential factor in the fatigue process. Of the two supposed causes of muscle fatigue—viz., decrease of contractile substance and accumulation of fatigue products with poisoning of the muscle thereby—the former apparently plays no part in the phenomenon; the latter is the sole cause. Fatigue is a safeguard against exhaustion. Attempts to demonstrate histological differences between resting and fatigued muscle gave negative results.

Decerebrate rigidity is a term which was used by C. S. Sherrington in a communication made to the Royal Society in 1896 to designate a condition of long-maintained muscular activity supervening on removal of the cerebral hemispheres. Although continued experimentation still leaves the author in doubt concerning the actual focus of the origin of the rigidity, he has supplemented his previous communication with a further account of the phenomenon and of some points connected with it. It appears from this that "decerebrate rigidity is only a type of extensor spasm of which allied examples follow various other lesions of the cerebello-cerebral regions. The development of it in a limb is largely determined by centripetal impulses coming from the same. The contraction of the muscles active in it can be readily inhibited by stimulation of various regions of the central nervous system,

among others of the sensor-motor region of the cerebral cortex. The activity of the rigid muscles can be readily inhibited by stimulation of various peripheral nerves, among others, of the afferent nerve fibers proceeding from skeletal muscles. Reflexes obtained from the decerebrate animal exhibit contraction in one muscle group accompanied by relaxation, inhibition in the antagonistic muscle group (reciprocal innervation)," and this in such distribution and sequence as to couple diagonal limbs in harmonious movements of similar direction.

From a series of investigations carried on by Elizabeth Cooke in 1894 and 1895 on the muscles of the frog with a view to determining the part played by osmosis in the animal muscles, and what differences in osmotic phenomena are determined by the different conditions to which living muscles are subjected, the results are deduced that a muscle immersed in a hypertonic sodium-chloride solution does not behave according to the laws of osmotic pressure governing two solutions having the pressure of the immersing fluid and the fluid which is isotonic for the muscle, but (owing doubtless to splitting-up processes within itself consequent upon the taking up of water by the muscle) behaves like a solution having a higher osmotic pressure than the solution for which it is isotonic; that a rise in temperature determines an increase in the osmotic pressure within the muscle, and this increase is greater than the increase which would result from a given rise of temperature in a solution the molecules of which do not dissociate; that in a muscle which has been removed for some time from the body a loss of water decreases the irritability of the muscle, and a taking up of water, up to a certain point, increases the irritability (beyond that point the taking up of water decreases the irritability of the muscle); that a muscle which has done work has a higher osmotic pressure than a resting muscle (the greater the fatigue the greater the increase in osmotic pressure); and that the increase in the osmotic pressure consequent on fatigue is due not to any change in the physical properties of the muscle, but to chemical changes within the muscle.

Experiments made upon dogs by J. Brunton Blaikie and Prof. Gottlieb, and reported to the International Physiological Congress, demonstrated that urea is present in the muscles of both well-fed and starved animals, but that its amount undergoes considerable variation according to the condition of the animal, the variation appearing to be essentially related to the amount of urea in the blood.

Nervous System.—The functions of the optic thalami have been investigated by M. J. Sellier and M. H. Verger, with special reference to the effect of lesions of them upon sensibility. In experiments with dogs fine needles were made to penetrate the substance of the thalami and a current of determined mean strength was made to pass. No symptoms of meningitis were observed in any of the animals, and only small, though sharply defined, destruction of the tissues was observed. The animals were allowed to recover from the operation and were tested systematically for a few weeks. When they were examined from eight to ten days after the operation, motility and sensitiveness to heat were always found intact. The sense of the position of the limbs and the tactile sensibility were always manifestly affected. At the end of a fortnight the disturbance of sensibility had disappeared, a fact which the authors regard as the most important outcome of their observations. Marked and permanent visual troubles were observed in two cases, but the authors were not able to determine whether there was complete

unilateral blindness or a crossed hemianopsia. They satisfied themselves that the optic thalami have no influence on the voluntary movements of the animal operated upon, and that there were no compulsory or forced movements. Their sensory office is undeniable, but the thalamic anæsthesia, like cortical anæsthesia, do not include sensibility to pain and are transitory—circumstances which support the view that the functions of the cerebral ganglia are similar to, if not identical with, those of the convolutions of the brain.

Two tracts in the lumbo-sacral region containing what Marle has named "endogenous fibers" are described by Dr. Alexander Bruce. These fibers occur in the posterior columns of the cord, and are so named because they are derived from cells in the cord itself and do not originate in the posterior roots. One of the tracts, named the cornu-commissural tract, lies in the anterior part of the posterior column in close apposition to the posterior commissure and septum and in part to the surface of the cord. The second, the septo-marginal tract, has a close relation to the posterior median septum. The cornu-commissural tract does not degenerate in locomotor ataxia even in its advanced stages or in injury to or compression of the cauda equina. It undergoes degeneration in conditions which lead to atrophy or degeneration of the cells of the posterior cornu. After giving a particular description of these tracts, Dr. Bruce observes that it is not yet possible to make a definite statement regarding the cells from which they originate, and that nothing can be asserted with certainty as to their function except that they are probably commissural.

From studies of the experimental junction of the vagus nerve with the cells of the superior cervical junction Dr. J. N. Langley concludes that there is no essential difference between the efferent "visceral" or "involuntary" nerve fibers, whether they leave the central nervous system by way of the cranial nerves, by way of the sacral nerves, or by way of the spinal nerves to the sympathetic system. All these fibers he takes to be preganglionic fibers, and he thinks that the preganglionic fiber is capable in proper conditions of becoming connected with any nerve cell with which a preganglionic fiber is normally connected, although apparently this connection does not take place with equal readiness in all cases. On the whole it appears that the functions exercised both by preganglionic and by post-ganglionic fibers depend less upon physiological differences than upon the connections which they have an opportunity of making during the development of the nervous system and of the other tissues of the body.

From a study of the changes produced by excitations in the cerebral neurones, the results of which were communicated to the International Physiological Congress, Dr. Héger, of Brussels, concludes that one of the important properties of the nervous cell is its variability. The variations bear upon the body of the cell, its prolongations, and its appendices. The three orders of variations may exist together or independently of one another. The investigation of their significance bears upon the question of the normal and pathological activity of the nervous centers.

In a paper read to the fourth International Physiological Congress at Cambridge, England, on the significance of the moniform state of the cerebral neurones, M. D. Demoor gave the conclusion that the nervous elements being plastic, real amiboid movements do not enter into the phenomena. The plasticity of the neurones is very important from the point of view of the mode of their association with one another, and of their relations with the terminal apparatus.

Dr. Caro Parascandolo, in experiments on dogs and rabbits, has studied the lesions of the nervous system that occur after burns of various degrees of severity. He has found retraction of the gray matter of the cord with deformed posterior cornua and perinuclear and peripheric chromatolysis in the cells; sometimes what he terms homogenization of the protoplasm; sometimes granular degeneration of chromatin with presence of chromatic rods in the nucleus; and sometimes total achromatolysis with destruction of the tissue network. The protoplasmic processes presented varicose atrophy or lost their connection with the cell body and were augmented; and degeneration of the cord, affecting the posterior cornua, was the rule. The author concludes that as the result of burns ptomaines make their appearance in the blood and muscles and other organs of animals suffering from them, and cause death by bringing about anatomical changes in the nervous centers. The alterations observable are similar to those met with in different types of infection. It is particularly worthy of notice that these ptomaines are capable by inoculation of producing in the nerve centers the same lesions as are observed in the case of burns.

The salient points brought out in an investigation by Prof. Louis Kahlenberg, of the University of Wisconsin, of the action of solutions on the sense of taste may be summarized as follow: In order that a substance may affect the sense of taste, it must be soluble in water, must be readily diffusible, and must be capable of reacting chemically with the protoplasm of the terminals of the nerves of taste. The modern theories of solutions lead to the conclusion that the taste of a solution that conducts electricity ought in general to be that of the ions and the undissociated molecules that the solution contains: sour taste is caused by hydrogen ions, while hydroxyl ions produce an alkaline taste, which in strong solutions is exceedingly disagreeable; chlorine ions have a salty taste, bromine ions one that is similar, but slightly different in quality from that of chlorine ions, while iodine ions have a salty taste that is different in quality and less intense than that of either chlorine or bromine ions. The taste of NO_3 ions is slight, probably a trifle salty. Only in strong solutions do they produce a sharp burning sensation on the tip of the tongue. The ions SO_4 and CH_3COO have but very little taste, the effect of the latter seeming to be a trifle sweet. The taste of sodium ions is slight, and is only imperfectly described as being a smooth effect on the tongue, somewhat similar to that produced by a very dilute solution of hydroxyl ions. Potassium ions have a more pronounced taste, peculiar, bitter, and rather disagreeable. Lithium ions have no pronounced taste, having a similar effect, but less in degree, with that of the sodium ions. Magnesium ions are bitter, and calcium ions too, but with a taste different in quality from that of magnesium ions. Silver ions have a metallic taste and cause a peculiar puckering sensation in the membranes of the mouth cavity. The taste and effect of mercury ions are somewhat similar to those of silver. The intensity of the salty taste of the halogen ions decreases as the atomic weight increases. A relation in the sense of the periodic law also appears to exist between the taste and the atomic weights of the cations. Instances are found that point to the conclusion that the greater the mobility of the ions as measured by their speed under the influence of the electric current, the more intense is the taste; but many exceptions point to the operation also of other factors. The intensity of the taste of solutions of substances containing amido-acid, alcoholic hydroxyl, and aldehyde groups was investigated, with results corresponding in general to what might

be expected from the relative readiness with which these substances permeate plant and animal membranes. The alkaloids have in general a pronounced bitter taste, as they permeate protoplasm rapidly and exert a strong physiological action on the nerves; while colloid solutions are tasteless because the substances they contain diffuse very slowly and are chemically inert.

In the examination of the color sensations of nearly 100 persons, Mr. G. J. Burch observed that by exposing the eye to bright sunlight in the focus of a burning glass behind a red screen a condition of temporary red blindness is induced, during which scarlet geraniums appear black and roses blue. Green blindness and violet blindness may be produced by similar means. The author has systematically investigated the appearance of the spectrum during the color blindness induced by exposure to intense light from various parts of the spectrum, and finds that the red from A to B, the green near E, the blue halfway between F and G, and the violet at and beyond H produce well-defined and characteristic results, indicating that each of these colors corresponds to a definite color sensation. In each case all direct sensation of the color used for fatiguing the eye is lost, but the observer is conscious of a positive after-effect of the same color, by which the hue of all other colors is modified. The temporary abolition of one color sensation is without effect on the intensity of the remaining color sensations. Any two, or any three, of the four color sensations—red, green, blue, and violet—can be simultaneously or successively exhausted. The observed facts are, in the author's opinion, more in accordance with the Young-Helmholtz theory than with that of Hering, but they imply the existence of a fourth color sensation, namely, blue.

A number of cases of what may be called color hearing, or the association of a sense of color with certain sounds, are described by Dr. W. S. Calman, who finds that they may fall into two groups. In the first group a crude color sensation, often very beautiful, is associated with certain sounds, as those of the vowels severally, and of musical notes and instruments. The appearance is usually that of a transparent film like a rainbow, in front of the observer. In the second group color sensations occur whenever letters or written words (symbols of sound) are spoken or thought of, so that when a word is uttered the subject visualizes the letters, with each of which a distinctive tint appears. The author is led from his studies of the subject to regard the phenomenon as one of "associated sensations" analogous to the sensation of shivering which we experience in one part or other of the body at the sight or thought of an action, or when having to endure certain disagreeable or squeaking sounds. The tints excited are very definite and characteristic, each for its own sound, and do not vary as time goes on, while the colors are hardly ever the same in two persons.

Miscellaneous.—The results of more than one hundred cases are cited by MM. S. Arloing and Paul Courmont as showing that the aggregation of the tubercle bacilli when the blood serum is introduced into a culture may furnish, very rapidly, an important element of information in the early diagnosis of true tuberculosis. In two cases, however, the test failed, though tuberculosis was undoubted and in an advanced stage. The fact that positive results were almost always obtained when the tuberculosis lesions were in an early stage is taken as showing that the serum reaction is the more valuable. Feeble aggregation was induced in some cases where tuberculosis was not found by the ordinary clinical methods, and the inference is drawn that latent tuberculosis may be consistent

with the appearance of perfect health. One of the latter cases afterward developed into tubercular laryngitis.

A form of the tubercle bacillus capable of existing in cold-blooded animals, such as the frog, has been described by MM. Bataillen and Terre. A third form of this bacillus, originally human, has now been obtained after a passage of three days in the frog. On solid media this form grows rapidly at temperatures between 12° and 48° C., and is distinguished from the form previously described by three points, appearance of cultures, power of easily developing at high temperatures, and possession of the property of rendering beef broth turbid. The colonies on the potato are brownish and the bacilli are not stained by the methods of Gram or Ehrlich. Experiments on animals have led to the conclusion that many cases of pseudo-tuberculosis are in reality true tuberculosis, having as a cause one of the forms of Koch's bacillus.

The relations of toxins and antitoxins, particularly in the cases of snake poisoning and diphtheria, have been investigated by Dr. C. J. Martin and Dr. T. Cherry with reference to the nature of the substances themselves and the nature of the antagonism between them. The first of these two problems has not been satisfactorily answered, but the authors have found that the materials in question have high molecular weights, and should be classed with proteids or proteidlike substances. Applying a method of separating substances of large from those of smaller molecular size in a solution containing both, it appeared that the antitoxin of diphtheria did not pass through the filter. Its molecular size was therefore presumed to be of the same order as that of a globulin. When antitoxic serum was filtered in this manner, all the proteids, and together with them all the antitoxic virtue, were absent from the filtrate. Toxin, on the other hand, the molecular size of which is of the albumose order, was not held back by the filter. Corresponding results were obtained with the toxin and antitoxin of snake poison. Concerning the nature of the antagonism between the two substances difference of opinions has prevailed, some authors believing it to be chemical, like that between an alkali and an acid, and others regarding the action as indirect, operating in some way through the cells of the organism. Experiments with cobra poison in which the antitoxin was destroyed by heating the solutions to 68° C. for ten minutes, while the venom was not attenuated, have been held to show that the toxin and antitoxin do not act *in vitro*, but only *in corpore*, or that the action can not be explained as a simple chemical operation. Such experiments are shown by the authors not to be conclusive, because in them no account is taken of time as a factor in aiding chemical action; and they present experiments of their own, illustrated by a graphic curve, showing that when the antitoxin is allowed to act upon the toxin for more than ten minutes before the solution is applied they completely neutralize one another *in vitro*. This result was obtained with both snake venom and diphtheria toxin and the antitoxin.

The chief points noted in a paper by W. B. Hardy regarding continued observations upon the action of the hyaline cells of frog's lymph upon bacilli, are that actual measurements show that contact with an oxyphil cell of frog's lymph retards or stops the growth of a chain of *Bacillus filamentosus*; that the action of the cells upon this organism is generally determined by temperature. Below 19° C. the cells usually completely arrest growth; between 20° and 25° C. the growth is only retarded. The cells exert the action by coating the chain with a slime which is derived from the oxyphil granules. Con-

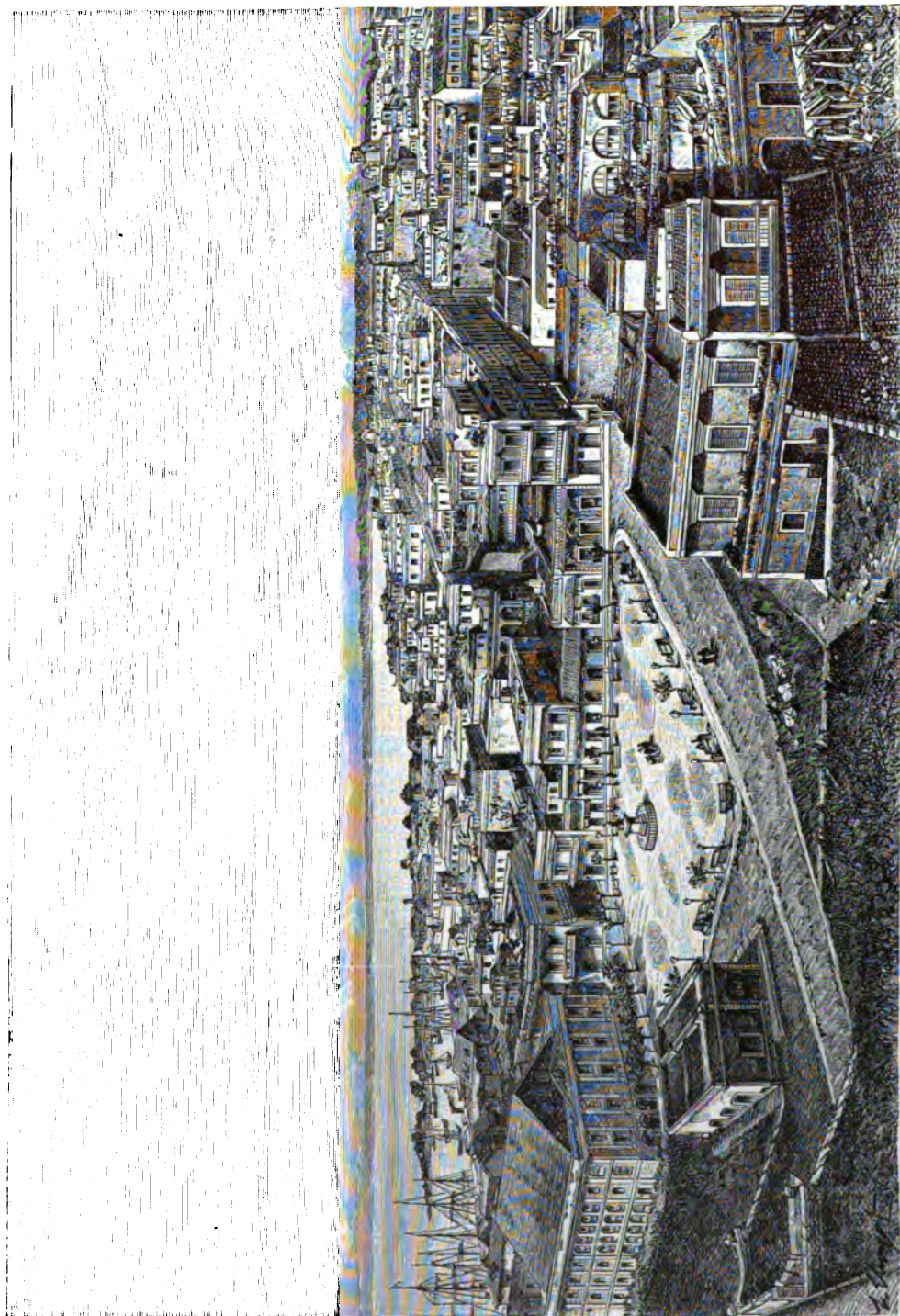
tact with a hyaline cell does not necessarily have any effect upon the rate of growth of *Bacillus filamentosus*. If the bacillus is inclosed within vacuoles developed in the cell substances, then retardation of growth occurs.

M. S. Arloing has found that the development of the immunizing effects of anti-diphtheric serum is influenced by the place and mode of introduction. When administered separately, its complete antitoxic action is greatest when it is introduced into the blood, and least when introduced into the conjunctive tissue.

In a research by J. T. Cash and W. R. Dunstan on the pharmacology of certain alkaloids in relation to their chemical composition, the pure alkaloids aconitine, benzaconine, aconine, and an aconitine derivative, diacetylaconitine, were examined with reference to their action upon warm- and cold-blooded animals, a similar series of experiments being made with each alkaloid for purposes of contrast. It was found that if the dose of aconitine, which is invariably lethal per kilogramme body weight, be represented by the unit, that, in very general terms, diacetylaconitine would have $\frac{1}{10}$ of the toxicity of aconitine, benzaconine $\frac{1}{15}$, and aconine $\frac{1}{100}$. The variation in toxicity among these alkaloids is therefore enormous. The details of the chief results obtained and of the points of difference in the action of the several alkaloids are given in the paper of the authors. All the alkaloids examined reduce body temperature, though in varying degree. It is further pointed out that while the toxicity of aconitine mainly depends on the presence of the acetyl group, the introduction of two additional acetyl groups into the aconitine molecule does not materially alter the pharmacological action, but merely reduces the toxicity of the parent alkaloid. The removal of the acetyl group abolishes the stimulant action upon the respiratory center and pulmonary vagus. It also favors reduced activity in motor rather than in sensory nerve endings. The benzoyl group—present in benzaconine, absent in aconine—causes a peculiar and distinct modification in the heart's action, associated with a disturbance of sequence never witnessed after aconine. The curarelike effect of aconine and the intermittent failure of the stimulated benzaconine muscle are also traceable to the modification in chemical constitution arising from the absence or presence of the benzoyl group. Attention is drawn to the practical bearing of the fact that benzaconine and aconine, pharmacological antagonists of aconitine, occur with it in the root of *Aconitum napellus*, from which the medicinal preparations of the drug are made.

In experiments to determine the action of anesthetics on vegetable and animal protoplasm, J. B. Farmer and A. D. Waller studied the effects of carbon dioxide, ether, and chloroform with leaf of elodea and other plants and nerve of frog. The action of carbon dioxide was to produce an initial slight acceleration, followed speedily by a complete cessation of movement. On disconnecting the carbon-dioxide apparatus and aspirating air through the chamber, the protoplasm, after the lapse of two or three minutes, began to show signs of recovery. Fitful movements of the granules first occurred, and then they soon resumed their processional motion around the cell, at first very slowly. The movements rapidly became accelerated and considerably exceeded the normal rate. The acceleration did not last long, and was followed by a slowing down to the ordinary speed. The results of experiments with chloroform and ether are also given in the authors' paper.

Conclusions are drawn by E. Overton from comparisons of experiments in growing plants in sugars with observations made on autumnal leaves in the



SAN JUAN, PORTO RICO.

Alps, that the red coloring matters of green plants are probably of the nature of glucosides, and are in most cases unions of tannin compounds with sugar. The chief factors in their production are sunshine, which, on the one hand, augments assimilation and the production of sugar, and, on the other hand, accelerates the chemical process leading to the formation of the pigment, and the low temperature, which prevents the conversion of the sugar into starch. In other words, the red autumnal tints are in great measure the direct results of the autumnal climatic conditions. It is possible in many plants to produce red autumnal tints at any time of the year by feeding with glucose. Generally speaking, this artificial production of red cell sap is possible only when the natural reddening of the leaf has its seat in the mesophyll cells. In cases where the coloration is in the epidermis experiments with glucose are unsuccessful.

As the result of the examination of numerous tumors, M. F. J. Bosc has found that the abnormal formations foreign to the tissues can be grouped under five morphological types—microbial forms, granulations, cellular forms of very variable origin, encysted forms, and sarcomatous forms. All these forms exist in epithelia, carcinoma, and sarcoma, but sarcoma contains especially the microbial forms and the granulations.

Prof. Küttner, of Tübingen, found from experiments with Röntgen rays, at the Constantinople Hospital, that splinters of bullets and of bone which had penetrated into the soft parts of the body could not be distinguished from one another. It also appeared that the opinion that deep-lying pus could be located was erroneous. Injuries to the central nervous system, the spinal cord, and the peripheral nerves were solely ascertainable by the aid of the Röntgen rays; it was impossible to do this before. It could, further, be seen whether a bone was totally or only partially severed. It was recommended that photographs be taken for shot wounds in the extremities. The author concluded that the Röntgen rays are of great importance for medical aid in war, but only for fixed hospitals, such as reserve hospitals and those installed in fort reserves, while for moving field hospitals their application is very limited.

For a long series of observations upon the surface and the deep temperature of healthy men M. S. Pembrey and B. A. Nicol applied their tests to the urine and the rectum. The average of 343 observations upon the temperature of the rectum was 98.24° F., and that of 377 determinations of the temperature of the urine was 98.64° F. for a day of twenty-four hours. The average for the time of activity (7 A.M. to 11 P.M.) was 98.58° F. for the rectum, and 99.12° F. for the urine; while for the period of rest it was, respectively, 97.42° F. and 97.67° F. The maxima of the averages were 99.25° F. and 99.58° F.; the minima, 97.03° F. and 97.25° F. The times of the maxima were about 6 P.M. and between 4 and 5 P.M.; the times of the minima were about 2 A.M. and between 4 and 5 A.M. The maxima of all the observations, except those taken immediately after considerable exercise, were 100.6° F. and 100.1° F.; the minima, 96.8° F. and 96.9° F. Muscular exercise produced a marked rise, even as high as 101° F., in the temperature of the rectum and urine. This might be accompanied by only a slight rise or fall in the temperature of the mouth. The temperature of the mouth was found not to be an exact measure of the deep temperature of the body. It is unreliable after exercise or in cold weather, owing to the cooling of the mouth. In some cases the buccal temperature may be from 3° to 4° F. below the temperature of the rectum or urine. Mental work has apparently little influence upon the

temperature; it is generally accompanied by a fall in temperature, owing to the concomitant decrease in muscular activity. The effect of rest and sleep is to produce a steady fall in the temperature, and is the most important factor in producing the fall in the curve of daily temperature. The effect of food is to raise slightly (from 0.3° to 0.7° F.) the temperature of the rectum and urine, and, in the case of the evening meal, somewhat to delay the fall of temperature at that time. The mouth shows a relatively greater rise, owing to the increase in the vascularity and muscular and glandular activity of the tissues bounding the mouth. After a hot meal the temperature of the mouth is often above that of the rectum. The temperature of the rectum shows an average excess of 0.48 F. over that of the urine, and of 1.17° F. over that of the mouth. The average temperature of the urine is 0.82° above that of the mouth. The relative values, however, vary under different conditions. The surface temperature of the skin in the exposed parts of the body is liable to considerable variations, but that of the parts habitually covered by clothes is fairly constant. A simple flat-bulb mercurial thermometer readily gives results which compare favorably with those given by thermo-electric methods of determining the temperature of the skin.

The formation of enamel has been studied by Charles S. Tomes in the teeth of the Elasmobranch fishes, and he concludes that just as the teeth in that order present the simplest known form of tooth development, so they also present the first introduction of enamel as a separate tissue. In the first introduction it was a joint product, made under circumstances which almost precluded the formation of an outer layer upon the teeth; but in the further specialization of teeth in reptiles and mammals the tooth germs sink more deeply into the submucous tissue, and are protected for a much longer time. The enamel organs become more specialized, and finally take upon themselves the entire work of enamel building, manufacturing both the organic matrix and furnishing it with lime salts, as unquestionably happens in mammals. If these conclusions be correct, it would be quite justifiable to call the formation in these fishes enamel, even though the dentine pupila has had a share in its production.

The hepatic organ is found by M. A. Dastre, whenever it is present, to be always distinguished from the other tissues by the increased amount of iron it contains. Thus in the crustacea the liver is rich in iron, containing four times as much as muscle, while the blood and ovary contain practically none. In cephalopod mollusks the hepato-pancreas contains, weight for weight, twenty-five times as much iron as any of the tissues; in Lamellibranchs the ratio is about 5 to 1, and in Gasteropods the same. The presence of this iron is independent of the metal in the blood. Thus, when copper is present in the blood as hemacyanin, iron only is present in the hepatic tissue.

It has been shown by M. Raphael Dubois that the active agent in the production of light by animals and plants is a substance possessing the characteristics of the zymoses, which has been named, from that fact, *luciferose*. The light is not the result of combustion, or even of direct oxidation. The fixation of oxygen was shown by subsequent researches to be necessary, but it is effected indirectly, or through the intervention of luciferose, which behaves in this relation like an oxidizing ferment. The luminous organs of glowworms and of the eggs contained in the ovaries of the female give a blue color with tincture of guaiacum. The blood of the glowworm and of some other insects give the same reaction; but the au-

thor has demonstrated the importance of its photogenic function in the *Elateridae*. The luminous mucus collected from the bodies of dead fishes treated with chloroform likewise gives this reaction.

Experiments with reference to the influence of heat in the determination of sex, carried out by M. Marin Malhard on the development of *Mercurialis annua* at varying temperatures, have shown that in this case heat favors the production of female individuals.

PORTO RICO, an island in the West Indies, formerly a colony of Spain, ceded to the United States by the treaty of peace concluded at Paris in November, 1898. The revenue in 1895 was \$5,454,958, and expenditure \$3,905,687.

Area and Population.—The island, 108 miles long from east to west and 43 in extreme breadth, has an area of 3,688 square miles. The population is estimated at 900,000 to 1,000,000. In 1887 the population was 814,708, of whom 480,267 were white, 248,690 mulattoes, and 77,751 negroes. The foreign population numbered 41,000, including Spaniards, who numbered 35,000. San Juan, the capital, has about 30,000 inhabitants. Ponce had 37,545 in 1887.

Commerce and Production.—Porto Rico is one of the most productive of the Antilles, and its climate is the most equable and salubrious. Nearly the whole island is cultivated, the forests being confined to the ridge of mountains running through it and rising to the altitude of 3,600 feet. The soil is exceedingly fertile up to the tops of the mountains, and the climate is favorable to every kind of tropical produce. The coca palm grows along the shore, and about 3,000,000 coconuts are shipped annually, chiefly to the United States. On the steep hillsides bananas and plantains thrive without attention, and 200,000,000 bananas are exported every year. The most important product is coffee, the export of which constitutes nearly one half of the export trade of the island, being valued in 1897 at \$8,789,788. The coffee ranks with the best, and is all exported to Europe, bringing three times the price of the Brazilian. The export of sugar was \$3,747,891 in value. This has not been of late years a profitable crop except on a large scale, with the improved appliances. Of tobacco \$646,556 worth was exported in 1897. The soil and climate in Porto Rico appear to be as well adapted to this crop as in the most favored localities of Cuba, but the skill and care that are bestowed on it there are wanting, and the product has nothing like the same quality and reputation. The average export of coffee is 25,000 tons; of sugar 60,000 tons. Cotton is planted to some extent. The cacao plant has been more recently introduced and is cultivated with success. Orange trees yield six or eight times as much fruit as in Florida or California. Lemons, limes, and shaddocks are equally prolific. Pine-apples grow to great size and are of delicious flavor. The guava shrub runs wild. Other fruits are the grape, date, fig, sapodilla, citron, mango, pomegranate, avocado, pear, plum, tamarind, star apple, mamie apple, cashew, granadilla, bread fruit, custard apple, etc. Indian corn is raised everywhere. Rice is also an important crop. The native vegetables are yams, sweet potatoes, cassava, cucumbers, peas, beans, carrots, eggplant, tomatoes, okra, yucca, pumpkins, and arrowroot. In drugs and dyestuffs and in cabinet woods the country is rich. Besides the oak, locust, gum tree, palms of many species, the mahogany, and logwood, the woods contain the laurel, boxwood, walnut, the fragrant cedar of which cigar boxes are made, lignum vitae, tobacco tree, and the enormous ceiba, or silk-cotton tree. Aloes, sarsaparilla, jalap, and the castor bean are gathered wild. The principal minerals are

lignite, carbonates and sulphides of copper, zinc, and the magnetic oxide of iron, which is found in large quantities. Amber is also obtained. In former times gold was mined. Salt mines are abundant along the shore. In the east are quarries of gypsum. Cattle and hides are important exports. The total value of exports is about \$16,000,000 on the average. The value in 1896 was \$17,295,535, and that of imports \$18,945,793. The chief imports are flour, provisions, wines, oils, textiles, machinery, and lumber. Spain has furnished, besides wines and oil, most of the flour and textiles and manufactures of all kinds, but textiles have come also from England and Germany and from the United States, and flour also from the United States, together with petroleum, hardware, machinery, glassware, pork, lard, lumber and shooks and staves, butter, codfish, and cheese. The value of the imports from the United States in 1897 was \$1,988,883, and of the exports to the United States \$2,181,024. Spain has had till now 72 per cent. of the whole trade. In 1895 there were 1,077 vessels, of 1,079,036 tons, entered at San Juan.

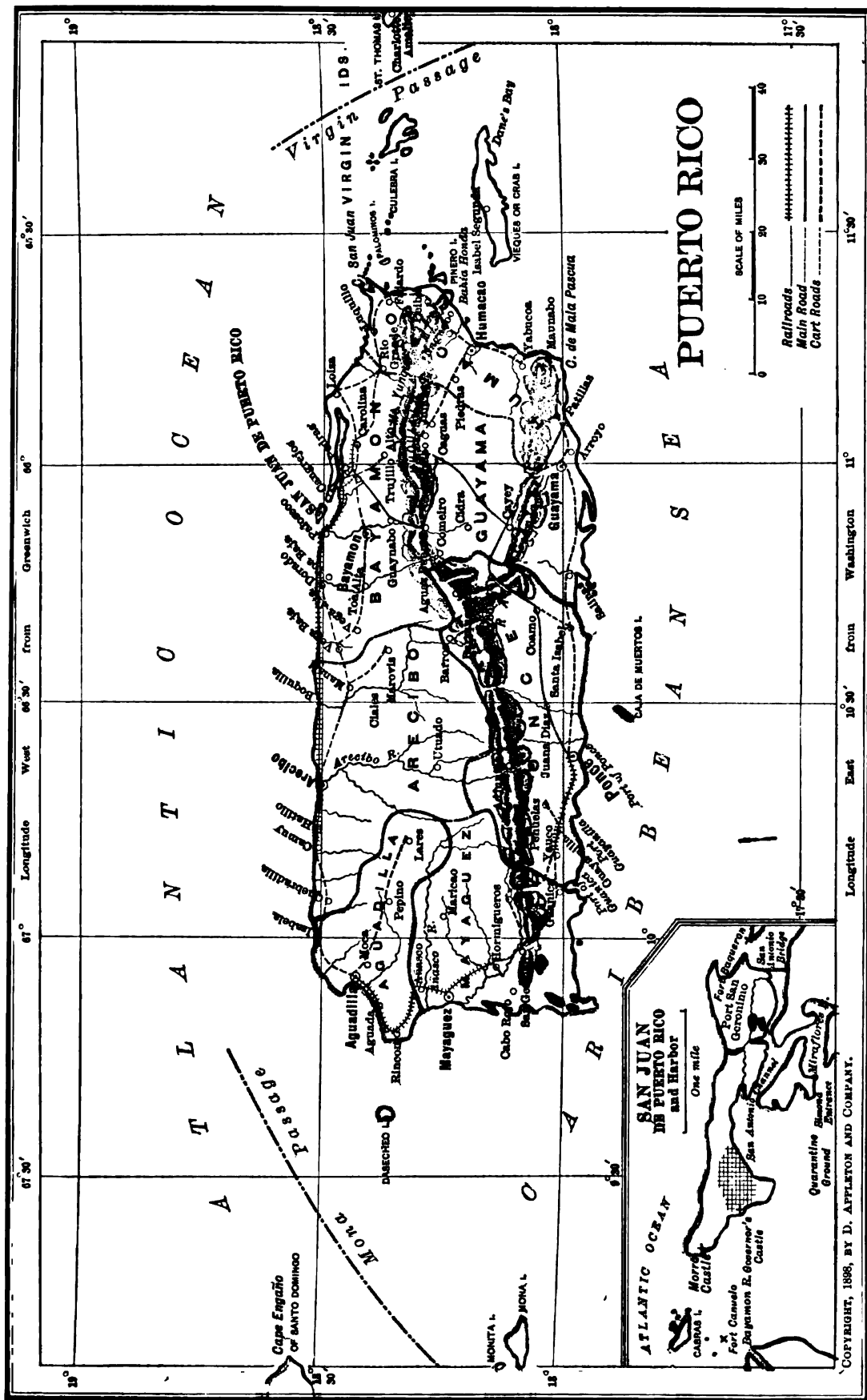
Communications.—There are 137 miles of railroads, besides 170 miles under construction, and 470 miles of telegraph. Cables run to Jamaica and St. Thomas.

PORTUGAL, a monarchy in southwestern Europe. The throne is hereditary in the family of Saxe-Coburg-Braganza. The reigning King is Carlos I, born Sept. 28, 1863. The legislative power is vested in the Cortes, consisting of a House of Peers, containing 52 hereditary, 13 spiritual, and 90 life peers, and a House of Deputies, 120 in number, elected for three years by the direct vote of all citizens possessing an elementary education or an income of 500 milreis. The Cabinet of Ministers constituted on Feb. 7, 1897, was composed, in the beginning of 1898, as follows: President of the Council and Minister of the Interior, José Luciano de Castro; Minister of Foreign Affairs, Henrique de Barros Gomes; Minister of Justice and Ecclesiastical Affairs, Francisco de Veiga Beirão; Minister of Finance, Frederico Ressaño Garcia; Minister of War, Gen. Francisco Maria da Cunha; Minister of Marine and the Colonies, Francisco Felisberto Dias Costa; Minister of Public Works, Commerce, and Industry, Augusto José da Cunha.

Area and Population.—The area of Portugal is 36,038 square miles, including the Azores and Madeira, which have an area of 1,510 square miles. Continental Portugal, at the census of 1890, had a population of 4,660,095, and the islands 389,634; total, 5,049,729.

Finances.—The budget estimate of revenue for 1898-'99 is 51,355,943 milreis from ordinary, and 1,450,000 milreis from extraordinary sources; total, 52,805,943 milreis. The estimate of expenditure is 51,518,761 milreis for ordinary, and 1,136,276 milreis for extraordinary purposes; total, 52,655,037 milreis.

The public debt of Portugal in 1853 was less than 30,000,000 milreis. In 1890 there was an internal consolidated debt of 258,086,897 milreis, a foreign debt amounting to 46,366,759 milreis, 104,172,464 milreis of redeemable loans, and 19,565,172 milreis of floating liabilities; total, 428,191,292 milreis. In 1891 the Government was no longer able to meet its current obligations, and a law was then passed reducing by 30 per cent. the rate of interest on the internal debt payable in currency, which was 3 per cent. on the consols and 4½ per cent. on the amortizable debt. This was followed in 1893 by a law reducing the interest on the external consolidated debt payable in gold by 66½ per cent., or from 8 per cent. to 1 per cent. per annum. The Council of Foreign Bondholders in London found the



amount of the external debts outstanding to be £63,137,263, consisting of £39,261,051 of 3-per-cent. consols, £1,822,223 of redeemable 4-per-cent. bonds, £12,793,989 of 4½-per-cent. bonds, and £9,260,000 of bonds guaranteed by the tobacco monopoly. The internal consols, also held in London to a considerable extent, amounted to £56,941,901, and there were £6,181,905 of internal 4 and 4½ per cent. outstanding, while £31,136,773 of all the issues were stated to be in the hands of the Government. The floating debt amounted to 36,826,421 milreis on June 30, 1897. The interest on the funded debts in 1896 amounted to 17,160,140 milreis; the total expenditure for the public debt to 17,833,538 milreis, more than a third of the total revenue.

Commerce and Production.—Wine is the chief product of the country, and its production is increasing in all sections. The exports in 1896 were 451,210,500 litres of ordinary wine, 284,561,800 litres of port, 22,537,000 litres of Madeira, and 2,733,700 litres of liqueur wine. The port and Madeira go to England, and in lesser quantities to Germany; the common wine mainly to Brazil. Corn, wheat, and rye are grown, but imports of wheat are required. Olive oil, figs, oranges, onions, tomatoes, and potatoes are some of the other products. Sheep and goats are reared in the mountains, cattle in the northern districts, and in the extensive oak forests hogs are fattened on acorns. The mineral resources are great, but for lack of coal and transportation facilities many rich mines remain undeveloped. The total value of the ore production, including copper, iron, antimony, manganese, lead, etc., is about 1,000,000 milreis a year. Sardines and herrings are caught and cured for export.

Colonies.—Portugal has the following colonial possessions:

COLONIES.	Square miles.	Population.
Africa:		
Cape Verde Islands.....	1,490	114,130
Portuguese Guinea.....	4,440	820,000
Prince's and St. Thomas Islands.....	360	24,660
Angola.....	484,800	4,119,000
Portuguese East Africa.....	301,000	3,120,000
Goa, Damão, Diu.....	168	77,454
Timor.....	7,438	800,000
Macao.....	4	78,027
Total.....	801,060	9,216,707

The Cape Verde Islands are peopled by descendants of Portuguese settlers and women from the Guinea coast, who cultivate coffee, medicinal plants, and millet. The imports in 1896 were 1,595,900 milreis in value, and exports 386,500 milreis. The revenue for 1897 was estimated at 267,080, and exports 386,500 milreis. Portuguese Guinea, which is a part of the coast of Senegambia surrounded by French possessions, exports rubber, wax, oil seeds, hides, and ivory. The imports in 1895 were valued at 283,000 milreis; exports, 221,000 milreis. The revenue for 1895 was 58,200 milreis from local sources, supplemented by 146,000 milreis from the Portuguese treasury.

St. Thomas and Principe are fertile volcanic islands inhabited by Portuguese Creoles and negroes. An average of 600,000 kilos of cacao is produced in Principe and of 2,250,000 kilos of coffee in St. Thomas. Cinchona is also cultivated. The imports for 1896 were 1,055,500, and exports 2,283,917 milreis in value. The estimated revenue for 1897 was 300,900, and expenditure 201,385 milreis.

Angola is divided into the administrative districts of Congo, Loanda, Benguela, Mossamedes, and Lunda. The chief products are coffee and rubber, and after these, wax, sugar, vegetable oils, coconuts, and ivory. German capitalists have organized the Mossamedes Company for the purpose of carrying on

the cattle-rearing and fish-canning industries and developing the mineral resources of the country, which include copper, malachite, salt, iron, petroleum, and gold. The concession covers the newly discovered gold mines of Cassinga and a vast tract of country. The value of the imports in 1896 was 8,451,456 milreis; exports, 4,612,800 milreis. During the year 286 vessels, of 431,774 tons, visited the ports of San Paulo de Loanda, Benguela, Ambriz, and Mossamedes. There were 200 miles of railroad and 260 miles of telegraph posts. The revenue for 1897 was estimated at 1,374,430, and expenditure at 1,714,240 milreis. (See CAPE COLONY and SOUTH AFRICA.)

The Portuguese possessions in India are Goa, on the Malabar coast; Damão, north of Bombay; and the island of Diu. Salt works furnish the principal industry in all these places. The estimated revenue of Goa for 1897 was 873,118 milreis; expenditure, 935,363 milreis.

Macao, at the mouth of the Canton river, contained, with the dependent islands of Taipa and Coloane, 74,568 Chinese, 3,106 native Portuguese, 615 Portuguese from the Continent and 177 from the islands, and 161 foreigners. Trade is mostly in the hands of Chinamen, and the chief industry has been preparing opium for export to the Chinese of the United States and Australia, which is now declining. The export in 1896 was £285,600 in value. The revenue of Macao and Timor for 1897 was estimated at 497,305 milreis; expenditure, 473,100 milreis. Though Macao still contributes to the cost of the administration of Timor, this possession was made administratively independent in 1896. The delimitation of the boundary between the Dutch and the Portuguese parts of the island of Timor has not been completed. The chief exports of Portuguese Timor, which consists of the eastern half and the neighboring island of Pulo Cambing, are coffee and wax.

Politics.—The political situation is dominated by the financial exigencies of the Government. The Chamber in January, 1898, passed a bill granting trade and industrial monopolies in the Portuguese possessions, upon which the cotton manufacturers of northern Portugal closed their mills by way of protest. The campaign of Major Mousinho d'Albuquerque, Governor-General of Portuguese East Africa, against Gungunhana was no sooner victoriously ended by the capture of the Kafir chief than trouble broke out in St. Paul de Loanda, where the natives in January, 1898, attacked the fortress of Humbe repeatedly. A railroad in East Africa from Quilimane to Ruvo, on the frontier of British Central Africa, was authorized in June. Major Mousinho d'Albuquerque was replaced by a Governor-General more acceptable to the English and arrangements were discussed regarding the eventual cession of Delagoa Bay.

On May 2 Barros Gomes retired from the Cabinet, and Senhor Beirão succeeded him as Minister of Foreign Affairs, retaining at the same time the portfolio of Justice. After introducing a bill for the conversion of the external debt, the Government withdrew it in January to enter into fresh negotiations with the bondholders. Many public meetings were held evincing the popular repugnance to the conversion scheme. It was passed, nevertheless, by the Chamber of Deputies on March 8, and on April 29 by the Chamber of Peers, in which the Ministerial following had been strengthened by the nomination of new peers. The Cortes were closed on June 4. On Aug. 15 the Cabinet resigned and was reconstructed as follows: Prime Minister and Minister of the Interior, José Luciano de Castro; Minister of War, Col. Sebastião Telles; Minister of Foreign Affairs, Francisco de Veiga Beirão; Min-

ister of Finance, Senhor Espregueira; Minister of Justice, Senhor Alpoim; Minister of Marine, Senhor Villaca; Minister of Public Works, Elvino Brito.

PRESBYTERIANS. The annual statistical returns of the alliance of the Reformed Churches holding the Presbyterian system show that there are 80 such bodies throughout the world, with a total membership of 4,627,149 in 29,634 congregations.

The twelve branches of the Presbyterian Church in the United States return, altogether, 11,708 ministers, 14,891 churches, and 1,542,401 communicants.

I. Presbyterian Church in the United States of America (Northern).—The following is a summary of the statistics of this Church as published with the "Journal of the General Assembly" for 1898: Number of synods, 32; of presbyteries, 228; of ministers, 7,190; of churches, 7,635; of communicants, 975,877; of members of Sabbath schools, 1,034,164; of candidates for the ministry, 1,161; of local evangelists, 135; of licentiates, 469; of deacons, 9,696; of elders, 28,000; of additions on examination during the year, 57,041; of baptisms, 21,574 of adults and 27,768 of infants; of licensures (of ministers), 829; of ordinations, 290; of churches organized, 124. Amount of contributions: For home missions, \$972,993; for foreign missions, \$749,497; for education, \$84,056; for Sabbath-school work, \$112,781; for church erection, \$149,702; for the Relief fund, \$95,149; for the freedmen, \$118,359; for synodical aid, \$82,619; for aid for colleges, \$164,840; for the General Assembly, \$84,679; for congregational purposes, \$10,219,891; miscellaneous contributions, \$668,905. The figures show an increase in one year of 14,966 communicants, 9,702 members of Sabbath schools, and \$262,885 in contributions; and since 1870, or in twenty-eight years, of 429,316 communicants, 585,307 members of Sabbath schools, and \$4,068,440 in contributions.

The total income of the Board of Education for 1897-'98 was \$66,361. The report showed that the debt had been reduced \$1,500, and was at the time of making the report to the General Assembly \$7,720. One hundred and fifty-three new students had been received, making 814 beneficiaries in all—a decrease in two years of 223.

The Board of Aid for Colleges and Academies reported to the General Assembly that it had enjoyed, on the whole, the most prosperous year in its history. It had aided 28 institutions, the whole number of students at which was 2,733. It had suffered a loss of \$61,239 by the defalcation of its treasurer, who had been arrested, but had escaped. The amount lost had been made good by individual contributions of friends of the home mission work, and the board had been able to close the year without a deficit, and without having been obliged to use any part of its ordinary income to replace the subscribed funds. The receipts for the year had been \$117,622, against \$77,066 in 1896; besides which \$57,763 had been contributed to make good the loss by embezzlement, leaving \$3,475 yet to be replaced. The expenditures of the board had been reduced 20 per cent. below those of the preceding year.

The year's receipts of the Board of Ministerial Relief had been \$197,136, and showed a gain over the previous year of \$9,073 in church collections and \$1,820 in individual contributions. The board, having canceled the obligation of \$20,911 charged against it in the previous year, was out of debt. There were upon the roll of beneficiaries for the year 873 names, viz., 342 ministers, 473 widows, 29 orphan families, 7 woman missionaries, and 24 guests in the ministers' house at Perth Amboy, N. J.

The total receipts of the Board of Publication and Sabbath-School Work had been, in the Sabbath-

school and missionary work, including what it had received from the publishing department (two thirds of its profits), \$114,845; while the profits of the business department were \$31,047, of which \$20,698 were turned over to the Sabbath-school and missionary department. The net profits of the business department were \$4,680 more than in 1896. One hundred and thirty-five free libraries had been sent out by this department, containing 9,513 volumes. The missionary work had been prosecuted in 29 States and Territories, comprising 23 synods and 63 presbyteries, the present number of missionaries being 76. The missionaries had organized during the year 1,028 Sabbath schools, with a membership at starting of 4,896 teachers and 46,518 pupils.

The Board of Home Missions reported that the direction of the previous General Assembly for its reorganization with one secretary had been carried out, and the Rev. Charles L. Thompson, D. D., had been appointed the secretary, and had entered on his work March 1. A system of monthly payment of missionaries had been instituted instead of the former system of quarterly payments. The financial burdens of the year had been unusually severe. The debt had increased from \$147,297 to \$167,839; but a part of this increase might be considered only apparent, as resulting from the changes in the system of payment. The gross receipts for the year had been \$698,940, as against \$702,404 in 1896. Thirteen hundred and ninety-three missionaries and 330 missionary teachers had been employed. These returned 84,683 members of the Church and 107,541 hearers in the congregations; 7,995 additions on profession of faith, and 8,715 baptisms of adults and 4,322 of infants; 250 Sabbath schools organized; 88 church edifices built, 10 churches become self-supporting, and 39 churches organized, during the year.

The receipts for the year of the Board of Missions for Freedmen had been \$126,000. The debt had been slightly reduced. The Assembly directed that the expenditures for the year be limited to the amount appropriated during the past year.

The report of the Board of Foreign Missions mentioned revolution in Guatemala; war, famine, plague, and earthquake in India; excitement in China because of the aggressions of certain European powers; and alarm in Persia because of certain ecclesiastical and civil transactions, as having affected its work during the year. The 24 missions, however, with their 110 stations, had had a period of substantial growth, especially in Korea, where 847 adults had been baptized, much church building had been done, and some successful efforts had been made at self-support. The missions in China had advanced. The baptism of a number of high-caste Hindus and Mohammedans in India was mentioned. The number of additions on confession of faith, 415, in western Persia was unusually large. The general receipts for the year had been \$869,387, and the receipts on account of the debt \$79,738, making the total receipts \$949,125. The appropriations and disbursements had been \$864,702. The General Assembly reaffirmed its previous recommendations for the taking of two collections yearly for foreign missions; advised that foreign mission work have a place in the instruction of the Sabbath school, with encouragement of systematic giving; and directed that candidates to foreign fields be required to answer certain questions touching belief in evangelical truth, and acceptance of the Christian standard.

The one hundred and tenth General Assembly met at Winona Park, Ind., May 19. The Rev. Wallace Radcliffe, D. D., of Washington, D. C., was chosen moderator. Much interest was taken in the case of the Rev. A. C. McGiffert, D. D., a

professor in the Union Theological Seminary, New York, who was charged in an overture from the Presbytery of Pittsburg with having taught in his book, "A History of Christianity in the Apostolic Age," doctrines contrary to the standard of the Church and subversive of the truth of the Scripture. "In this volume," the complaint charged, "the New Testament is very irreverently handled; no special supernatural guidance is ascribed to its sacred writers; the genuineness of more than one half the books composing it is called in question; discordant and mutually contradictory teachings are declared to be contained in it; and its authority as a divine rule of faith and practice is set aside. Further, in said volume great distinguishing principles of the Presbyterian Church and even fundamental doctrines of evangelical Christendom are denied. Against such teachings of said volume the presbytery deems it a duty to bear testimony to disavow all complicity with them, and to condemn them as false and subversive of the Christian faith." Three reports were brought in by the committee to whom the case was referred. All agreed in recognizing the interest in the integrity of the doctrine of the Church that was shown by the petitioners in recognizing the widespread belief that the utterances of Dr. McGiffert were inconsistent with the teaching of the Scriptures as interpreted by the Presbyterian Church and by evangelical Christendom, and in deploring the renewal of controversy, but differed concerning the disposition that should be made of the case. The majority report recommended that no action be taken at present, in the earnest hope that Dr. McGiffert might be led to make a satisfactory explanation of his position in relation to the standards of the Church, or in default thereof peaceably to withdraw from the Assembly. The first minority report advised that the Assembly, without passing judgment upon the teaching of the book or upon the views of its author, direct the Presbytery of New York, of which Dr. McGiffert was a member, to confer with him "for the relief of the Church," either by a satisfactory explanation or otherwise, and to take such further action as the peace and purity of the Church might require. The second minority report recommended "the Assembly, without pronouncing upon the question as to how far the terms employed by the Presbytery of Pittsburg are or are not justified by the actual teachings of the book referred to, deem it wise that no further action be taken." The recommendation in the majority report was amended so as to read that "the Assembly therefore, in the spirit of kindness no less than in devotion to truth, counsels Prof. McGiffert to reconsider the questionable views set forth in his book, and if he can not conform his views to the standards of the Church, then peaceably to withdraw from the Presbyterian ministry," and was then adopted. Questions concerning the use of wine at the banquets of Presbyterian colleges and universities had been agitated in the Church for several years, and the attention of the General Assembly had been invited to the subject. More recently an inn had been established at Princeton, N. J., the application of which for a license had been indorsed by some of the professors in the university there. Much feeling had been raised throughout the Church by this apparent implication of members of one of its institutions of learning with the liquor traffic; and the presbytery to which one of them was attached had passed a vote of censure upon him, in consequence of which he had withdrawn from the Presbyterian Church. The Standing Committee on Temperance in its regular report on the subject had represented that the Church was not moribund or somnolent in the support of temperance, but was growing in responsive-

ness to the calls of God. Respecting overtures from the Synod of South Dakota and the Presbytery of Chillicothe on Princeton University, and those from two other presbyteries in regard to the use of liquor in connection with schools and colleges, the chairman of the committee represented that the overtures on Princeton rested on misrepresentation. The stand taken by that institution was as high as any in the Church or in the land. A great injustice would be wrought touching it by any action other than that proposed by the committee (declaring that none was necessary), as it would be considered, whether general or not, as against the institution. The committee's report was not approved, but the minority report, which differed from it only in so far as touched the use of intoxicating liquors in schools, was adopted, "with applause." In it the Assembly reiterated the deliverances of former Assemblies in declaring that the word of God enjoins temperance, and that its principles of love and self-sacrifice commend total abstinence; urges the ministers and elders to bear frequent and pronounced and public testimony against intemperance as a menace to all social institutions and opposed to the achievement of every Christian ideal; and "called upon all who are connected with our beloved Church to exercise increased diligence and watchfulness over themselves and those committed to their care in respect to intemperance, whether as parents or teachers in our schools and colleges, in order that our homes and schools may be purged of the evil of intemperance, and the drink traffic may be driven from our land, and this without reflection upon the authorities of any collegiate institutions." It having been shown that the Presbytery of New York had erased the name of the Rev. Charles A. Briggs, D. D. (see "Annual Cyclopædia" for 1896 and 1897), from its roll, its action was approved. In relation to a bill before Congress to authorize the erection of a denominational church on the grounds of the Military Academy at West Point, the Assembly, citing the provision of the Constitution of the United States prohibiting legislation respecting an establishment of religion, resolved that "the Assembly, entertaining the views expressed by Judge Story that while Congress may recognize religion in its legislation, as in appointing chaplains, it is prohibited by the Constitution from an enactment recognizing churches or religious sects," therefore entered its protest against the "prospective legislation as being opposed to the Constitution of the United States and the spirit of the institutions of this country."

Upon invitation of the Board of Foreign Missions of this Church, a conference of various mission boards was held July 13, to consider the subject of establishing missions in Cuba, Puerto Rico, and the Philippine Islands. A report was adopted declaring that the existing situation in these countries involved certain moral and religious responsibilities which, independent of the precise character of the political relations that might be hereafter formed with them, the Christian people of America should carefully consider. It was agreed that the Caroline Islands should be deemed the distinctive field of the American Board of Commissioners for Foreign Missions. Seven boards had either already undertaken work in Cuba, or were expecting to undertake it, namely, the Home Mission Board of the Southern Baptist Convention, the Missionary Society of the Methodist Episcopal Church, the Board of Missions of the Methodist Episcopal Church, South, the General Conference of Free Baptists, the Foreign Missionary Society of the United Brethren in Christ, the American Church Missionary Society of the Protestant Episcopal Church, and the New York and Indiana Yearly Meetings of Friends.

Three boards contemplated work in Puerto Rico, namely, the Missionary Society of the Methodist Episcopal Church, the Board of Missions of the Methodist Episcopal Church, South, and probably of the Southern Baptist Convention. Three boards were "seriously disposed to consider" the opening of missionary work in the Philippine Islands, namely, the Board of Foreign Missions of the Presbyterian Church in the United States of America, the Missionary Society of the Methodist Episcopal Church, and the American Baptist Missionary Union. In the interest of the principles of comity and the belief that the situation in respect to these countries afforded an excellent opportunity of carrying out these principles from the point of view of Christian fellowship, the meeting recommended "that each of the boards mentioned appoint a committee of two on the field or fields which it thinks of entering, each group of committees to confer with a view to frank and mutual understanding as to the most effective and equitable distribution of the territory and work under the several boards; second, that the committee take early steps to secure all available information regarding these various islands as missionary fields, and that all the information thus obtained be shared with the other committees concerned, with a view to subsequent action; third, that the committee on the Philippine Islands be requested to inform the American Board that no board has expressed an intention of undertaking work in the Ladrone Islands, and that the question was raised whether the equipment of the American Board in connection with the Caroline Islands does not better fit it for work in the Ladrone Islands, if it should become expedient to undertake it."

II. Presbyterian Church in the United States (Southern).—The tables published with the "Journal of the General Assembly" give statistics of this Church for 1898, of which the following is a summary: Number of synods, 13; of presbyteries, 77; of ministers, 1,448; of churches, 2,873; of communicants, 217,055; of pupils in Sabbath schools, 146,907; of candidates, 362; of licentiates, 73; of ruling elders, 8,957; of deacons, 7,533; of teachers in Sabbath schools, 20,250; of baptized non-communicants, 89,326; of additions during the year on examination, 10,842; of baptisms, 3,998 of adults and 4,901 of infants; of licensures, 54; of ordinations, 70; of churches organized, 82. Amount of contributions: For home missions (Assembly's), \$28,562; for evangelization (local), \$110,232; for the Invalid fund, \$13,377; for foreign missions, \$121,662; for education, \$53,994; for publication, \$7,969; for colored evangelization, \$12,383; for the Bible cause, \$5,096; presbyterian contributions, \$15,472; for pastors' salaries, \$792,807; for congregational purposes, \$587,917; miscellaneous contributions, \$97,681. The number of members is 5,361; of pupils in Sabbath schools, 3,409, and the amount of contributions \$13,960 more than in 1897; and increase is shown, since 1874, or in twenty-five years, of 112,099 communicants, 86,644 pupils in Sabbath schools, and \$735,391 in contributions.

The report of Fredericksburg College to the General Assembly showed that it had been separated, in compliance with the directions of the previous General Assembly, from the Home and Training School, in which there were 35 students. The property of the institution was valued at \$10,200 while its outstanding obligations were \$14,260. The training school for woman missionaries was discontinued.

Ten students had attended the classes of Stillman Institute for the Training of Colored Ministers.

The Executive Committee of Publication estimated that its issues from the press during the year had been, in round numbers, 100,000 copies of books

and tracts. It had made grants to Sabbath schools, churches, mission fields, pastors, and evangelists to the amount, in all, of \$6,918. The contributions of the churches to this work had been \$7,005.

The receipts of the Executive Committee of Home Missions for the year, including those for the Assembly's home missions and for the Invalid fund had been \$52,353, and the expenditures \$39,300. The funds were classified as on account of home missions proper; of the Regular Loan fund, from which during twelve years \$6,955 had been loaned, enabling 51 white churches to erect or repair church buildings; of the William A. Moore fund for Church Erection, from which \$4,825 had been loaned to 19 churches, and which had now \$2,357 cash on hand; and of the Invalid fund, from the income of which \$10,480 had been paid out in aid of 89 aged or infirm ministers and 107 widows or families of deceased ministers. After retiring from the control of Armstrong Academy, School, and Home for Indian Boys in 1894, the board began a system of school work in towns and neighborhoods in the Indian Territory, which had grown in importance. About 650 pupils had been in the schools during the past session, more than one third of whom were missionary pupils, taught free of charge. Six white and five Indian ministers were engaged in the Territory, supplying all the organized churches and "eight or ten other points" with regular or occasional preaching, and returning 130 additions by profession. Mission work was also carried on among Mexicans immigrating to the United States.

The receipts of the Executive Committee of Foreign Missions had been \$146,478, a larger sum than was ever before contributed in a single year. The expenditures had exceeded that sum by \$363. Eight new missionaries had been sent out during the year, and one had been added by marriage. The whole number of missionaries on the roll was 155, of whom 56 were ordained ministers. The whole number of communicants in the mission fields was 2,948, and 533 additions by profession of faith were recorded in 1897. To these numbers should be added the members of a church in Brazil from which no report had been received. The additions were equivalent to about 17 per cent. of the membership, while the additions to the home churches averaged about 7 per cent.

The General Assembly met in New Orleans, La., May 19. The Rev. E. M. Green, D. D., of Danville, Ky., was chosen moderator. A complaint was presented from the Rev. Dr. W. M. McPheeters and nine others against the act of the Synod of South Carolina in officially indorsing a petition to the Postmaster-General and through him to the President of the United States asking that the transmission of the mails on Sunday be stopped and all post offices closed on that day. The petition had been communicated to the Synod of South Carolina with a request for indorsement of it by Bishop Stevens of the Reformed Episcopal Church. A motion was made that the synod declare itself unable to comply with the request, "not because it fails to recognize the fact that the transportation of the mails and the opening of the post offices on the Sabbath is a flagrant violation of God's law as declared in his Word, and as impressed upon the constitution of nature; nor because it was in any doubt as to the injurious tendencies and effects of such violation of God's law upon our material, moral, and political interests as a people; but simply because it is our settled conviction that synods and councils as such should handle or conclude nothing but that which is ecclesiastical, and should not intermeddle with civil affairs which concern the commonwealth." This was modified so as to give way to a motion to table a motion previously made to refer the subject

to a select committee and that motion was lost. The synod then on the recommendation of its committee decided to adopt the petition and forward it to the proper parties. The complaint of Dr. McPheeters, maintaining that the action of the synod was unscriptural and unconstitutional, prayed the Assembly to reverse it. After a full debate of the question the General Assembly by a vote of 92 to 47 refused to sustain the complaint, on the ground that the action complained of was based upon chapter xxxi, section 4, of the Confession of Faith. The Assembly having been notified of the organization of the colored Presbyterian synod, accepted the act as in accord with its long-cherished plans, and welcomed the new synod as a body of like faith and order with its own to the relation of fraternal correspondence with it; and, in view of the fact that it had encouraged the movement by promises of material assistance, engaged it to aid the synod with all moral and financial support within its power. A communication had been received from colored Presbyterians asking that the organization of this body be deferred, for the reasons among others that the colored church organization was not in a position of self-support, and that not many colored Presbyterian churches were yet informed of such a proposition. This subject was referred to the Executive Committee on Colored Evangelization, with power to act. The purchase of a property called the Eochrouse homestead, immediately adjoining the city of Tuscaloosa, to serve as the permanent quarters of the Stillman Institute, was approved; and the Assembly hoped that arrangements might be made at once for a thorough academic as well as the theological training there. The report of the Permanent Committee on the Sabbath included accounts from 50 of the 77 presbyteries, and these testified to a growing disregard of the day by the people of the country. The encouraging feature of them was that the people of the Presbyterian Church were holding fairly well the customs of the fathers in Sabbath observance. A resolution was unanimously adopted as pertinent to the prevailing war excitement and anxiety for news, calling the attention of the ministers to the historic position of the Church in all such matters: "That while ministers and people, in public and private, should pray for our rulers, and for the officers and men of the army and navy, and that peace with honor may soon be established, yet it is the duty of ministers to proclaim from their pulpits at all times nothing but 'the glorious Gospel of the blessed God.' . . . We urge also upon all our people that they abstain on Sabbath from such reading and conversation as may be inconsistent with the holy resting of the Lord's Day, devoting its sacred hours wholly to the public and private exercises of God's worship, 'except so much as is to be taken up in the works of necessity and mercy.'" The Assembly's Sabbath resolutions advised that ministers preach at an early day on the subject, reading in connection with the service the reports and resolutions of the Assembly; commended the literature of the American Sabbath Union, and appointed representatives to act with that body; and in regard to the communication addressed to the Postmaster-General (referred to above), deemed it "unwise and inexpedient thus to petition the civil authorities, and would rather urge upon our people to enforce the observance of this sacred ordinance by precept and example." To an overture asking whether a ruling elder has a right to give a charge to pastor or people in an installation service, the Assembly replied that a ruling elder may be appointed to give a charge to the people. In reply to an overture on the subject the Assembly explained that the use of the words "system of doctrine" in

the terms of subscription "precludes the idea of the necessary acceptance of every *statement* in the standards by the subscriber, but involves as much as is vital to the system as a whole. Differences of opinion as to whether any divergences are or are not vital to the system, where of sufficient importance, should be determined by the proper constitutional courts." The report on Young People's Societies represented that the committee had found evidence of great zeal and activity on the part of many that deserve to be fostered and encouraged by ministers and church sessions, and urged the importance of giving the young people help in the organization of societies calculated to train and develop them in every good work; "and in all cases where societies have been organized antagonistic or in any way unfriendly to our system of doctrine or government, we recommend, not the destruction of such organizations, but an earnest effort to bring them into active sympathy with the true spirit of Presbyterianism." A committee was appointed to consider the subject of Christian education in schools under Presbyterian control. A committee was appointed to address a pastoral letter to the ministers and people of the Church, affectionately warning them against all errors, and urging them to steadfastness in the faith.

III. Colored Presbyterian Synod of the United States and Canada.—Simultaneously with the meeting of the Southern Presbyterian General Assembly at New Orleans, May 19, a convention of representatives of the colored Presbyterians of the Southern States was held. The Rev. E. W. Williams, of South Carolina, was chosen moderator. Resolutions were adopted reciting the facts that a convention had been called by the independent presbytery within the bounds of the General Assembly of the Southern Presbyterian Church, through the agency of its Executive Committee on Colored Evangelization, of which this meeting was a result; that it was the purpose of the presbyteries creating the present convention to organize a separate colored Presbyterian church in the United States and Canada, and to establish, when the way may be made clear, a separate and self-governing colored Presbyterian General Assembly. It was therefore resolved that until the way is clear to establish a General Assembly, the body shall be known as the Separate, Self-governing Colored Presbyterian Synod of the United States and Canada. The standard of doctrine of the Presbyterian Church in the United States was adopted; gratitude was expressed to the Southern Presbyterian Church for its sympathy, co-operation, and financial support; the presbyteries represented in the convention were advised, as far as practicable, to seek the advice, counsel, and co-operation of their white brethren in the execution of their work. Standing executive committees were constituted—on Foreign Missions, Home Missions, Education, and Sabbath Schools. The thanks of the convention were returned to the General Assembly's Executive Committee on Colored Evangelization, with the request that it continue its work in the interest of the colored people.

The Colored Presbyterian Church is estimated by the Rev. Dr. E. Guersat, in the "Christian Observer," Louisville, Ky., to include 56 churches, with 132 ruling elder, 1,556 communicants, and 1,903 pupils in Sunday schools; besides 6 parochial schools, with 497 pupils, and 13 Sunday-schools taught by white teachers, with 860 pupils.

The number of colored Presbyterian members in the Southern States is estimated by the "Christian Observer," Louisville, Ky., to be, including special colored organizations and colored members in the Northern, Southern, and Cumberland Presbyterian Churches, about 25,000. As there were

about 14,000 colored members connected with these churches before the civil war, this number shows an increase of about 11,000, or a rate of gain of about 300 a year, while the colored population has increased about 87 per cent. since 1860. A tendency appears in some places, as in some parts of South Carolina, among the colored Presbyterians even to prefer other denominations. Many of those in that State who were Presbyterians in 1861 passed into the Baptist and Methodist Churches after the civil war, and in Charleston the Presbyterian colored members are not half so numerous as they were before emancipation.

IV. United Presbyterian Church in North America.—The tables of religious statistics for 1898, given in the "Independent" (New York) of Jan. 5, 1899, credit this Church with 873 ministers, 899 churches, and 114,287 communicants.

From the annual reports made to the General Assembly it appeared that the receipts of the Board of Education had been \$5,521. Sixty-four students had been recommended by presbyteries for aid—28 fewer than in 1896. Statistics had been collected showing that of the young people of the Church attending school, 2,935 were in the institutions of the Church, and more than 500 in undenominational schools or the schools of other denominations.

The year's receipts of the Board of Church Extension had been \$24,980 from direct contributions; besides which \$43,890 had accrued from legacies, loans returned, investments paid in, etc., and \$17,378 in balance from the preceding year. The expenditures had been \$66,962; and a balance of \$1,890 remained available for current expenses and new work.

The Board of Ministerial Relief had received \$31,906, and expended \$27,830. Attention was called in the report to the quarter of a century's good work the board had done, its present position, and its good prospects.

The total receipts of the Board of Home Missions had been \$67,267, and the expenditure \$77,192. The debt had therefore increased, and now amounted to \$20,326. While the missions had failed to show rapid extension, there had been a decided gain over the previous year in all the leading items of the report, and the increase of the contributions by the missions—from \$13,460 to \$14,827 in contributions to the boards, and from \$61,794 to \$73,232 for salaries of pastors and supplies—was especially noticeable. In no former year had so large a proportion of the stations been regularly supplied with preaching. Aid had been given to 206 stations, with 15,289 communicants, and an average attendance of 17,570 in the 197 stations which sent in reports; 1,433 additions by profession, a net gain of 1,394 members; and of 1,696 teachers, and 19,496 pupils in Sabbath schools.

The Board of Freedmen's Missions had received \$52,461, and expended \$50,971. It returned 595 church members at 10 stations, and 3,358 pupils in 11 day schools. Four of the stations had colored pastors. Three senior students in the theological seminary had been licensed as probationers. Thirty-three colored teachers, including ministers employed by the board, had all been educated in its institutions. Many young men and young women who had gone out from the missions had taught in the public schools in different parts of the South during the year, nearly all of them conducting also a Sabbath school. About 20,000 persons had received secular and religious instruction by these means.

The receipts of the Board of Foreign Missions from ordinary sources had been \$114,330, and its expenditures \$153,638. In consequence of this excess of expenditure the board had been obliged to bor-

row largely, and its debt had increased during the year from \$6,400 to \$23,238. It had in Egypt 43 congregations, 2 of which were self-supporting and 33 had native pastors; 5,725 communicants, with an average attendance of 11,021 on morning service; a Protestant community numbering about 20,000; 11,522 pupils, 2,464 of whom were Moslems, in the 165 day schools; 15 ordained American missionaries and 3 physicians; and 597 members had been received on profession during the year. The native contributions averaged \$3 per member. The mission in India was under the care of 15 ordained missionaries and their wives, and had 17 congregations, 1 of which was self-supporting, with services held at 160 other stations; 2,215 communicants and 4,115 baptized adults not communicants; a Christian population of 10,007; and returned 349 additions by profession. There had been a net decrease of 398 in membership. The 8 training and industrial schools and 154 day schools had 6,441 pupils, and more than 39,000 patients had been treated in the hospitals.

The Woman's Missionary Board returned the amount of "thank offerings" for the year as \$17,555. It had supported 37 woman missionaries in the foreign field, of whom 2 medical missionaries had treated 30,181 patients; 10 domestic missionaries and a school at Camden, Ala., for which buildings had been completed. It had also made Church Extension grants of \$11,200 to 7 parsonages.

The fortieth General Assembly met in Omaha, Neb., May 25. The Rev. R. G. Ferguson, president of Westminster College, was chosen moderator. The Committee on Union with the Associate Reformed Synod of the South reported that no correspondence on the subject had been had during the year. There had been co-operation in home mission work and in the Young People's Christian Union, and this was regarded as tending to unity by a more direct way and with earlier and better results. Notwithstanding its own recommendation to the contrary, the committee was continued. The representative of the General Assembly in the Committee on the Federation of Churches reported that the scheme had proved impracticable. A committee appointed by the previous General Assembly to consider and report upon a satisfactory plan for collecting information for the Committee on Narrative and State of Religion reported that the plan followed heretofore of sending a formula of questions to each session had been found to be burdensome, and recommended that hereafter the Committee on Narrative immediately after the meeting of the Assembly prepare an outline for inquiry as to the state of religion, and enter into correspondence with persons in all parts of the Church and engaged in all departments of Church work, making a careful study of the drift of religious thought and of the forces adverse and favorable to the spiritual life. These recommendations were adopted. Upon hearing the report of the Committee on the Introduction of Young Men into the Ministry, the Assembly enjoined the presbyteries to inquire carefully in regard to the natural gifts, personal character, literary attainments, and spiritual endowment of all who apply to be taken under their care, and directed that the seminaries exercise their inherent right to fix the standing and grade of each student, and that in case a student is dismissed from a seminary the authorities of the institution report the case fully to the presbytery. Of the report of the Board of Education on a comprehensive educational policy and the distribution of the beneficiary fund, the part relating to the distribution of funds for beneficiaries was amended and adopted. It requires, among other things, that students receiving aid must be under the care of a presbytery, receive its formal indorsement and recommendation, and be in attendance at one of

the denominational institutions; that a thorough collegiate education be required of young men as a qualification for entering the ministry, and presbyteries be urged not to make application for theological students who are undergraduates and do not intend to complete a full collegiate course; and that absolute abstinence from the use of tobacco be made an essential requirement for receiving aid from the beneficiary fund. The intention of the Assembly was expressed by resolution that, "as so many of the young people of our Church are in schools and colleges of other denominations or in institutions indifferent to religion, we aim to secure their attendance on our own institutions of learning by continuing to raise these institutions to the highest possible degree of efficiency, as well as by the earnest use of our personal influence to that end." A special committee was appointed to report to the next General Assembly a comprehensive educational policy. Declarations of former General Assemblies condemning the use of tobacco were reiterated, and overtures were ordered handed down to the presbyteries for addition to the book of government declaring the use sinful and inconsistent with the Christian profession; forbidding the ordination to the offices of deacons and elders of persons who will not promise to abstain from it; and directing that no student of theology shall be admitted to licensure and no licentiate shall be ordained unless he promises to refrain from it.

A memorial concerning the alleged violation of the law of the Sabbath by the singing of voluntaries was answered by a reference to the action of a former General Assembly authorizing the use of chants in the worship of God. The work of the Church in Egypt having become extended over a territory so large that a synod was necessary, the Assembly ordered the division of the Presbytery of Egypt into four—those of the Delta, Middle Egypt, Asyut, and Thebes—to be constituted into a synod to be called the Synod of the Nile. The directors of the Trans-Mississippi Exposition, at Omaha, having decided to open its gates on Sunday, the Assembly asked them to reconsider their action, alleging several reasons why the exhibition should be closed on that day. The directors invited the Assembly to visit the exposition, offering transportation and personal guidance. To this invitation the Assembly replied, appreciating the courtesy extended, but declining to accept it "on account of the action already taken in the opening of the exposition on the Lord's Day." A constitution for the Young People's Association was adopted, recognizing the affiliation of the society with that of the Associate Reformed Synod, and giving the joint body the name of the "Convention of the Young People's Christian Union of the United Presbyterian and Associate Reformed Presbyterian Churches of North America." Members of the Church were advised "to weigh carefully and prayerfully the effect of their votes upon the liquor problem, and so to use the power of the ballot as to be clear of all responsibility for the existence of the rum traffic." A Committee of Supplies was instituted for each presbytery, who, after consultation with vacant congregations, shall appoint all the supplies, and through whom applications for appointments must be made. The Board of Publication was directed to encourage the sale of its books through retail agencies.

V. Associate Reformed Synod of the South.—This Synod returned for 1898 95 ministers, 125 churches, and 10,868 communicants.

The Synod met in Chester, S. C., Nov. 10, the Rev. J. C. Galloway, D. D., being moderator. A fraternal delegate presenting the greeting of the United Presbyterian Church expressed the conviction that the two Churches were one if the people

could be got to see it. The Board of Foreign Missions was directed to enter into correspondence with the Board of Foreign Missions of the United Presbyterian Church with reference to sending missionaries to Cuba or Puerto Rico. A fraternal delegate from the Southern Presbyterian Church presented an overture from the General Assembly of that body proposing negotiations looking to organic union, but the Synod declined to enter into such negotiations. The question of accepting a gift from Mr. Joseph Wylie for building a girls' dormitory at Erskine College was the subject of a debate which turned upon the question of coeducation. The gift was accepted.

VI. Reformed Presbyterian Church in North America—Synod.—This body reported for 1898 119 ministers, 115 congregations, 9,990 communicants, 11,695 members of Sunday schools, 2,705 members of Young People's Societies, and total contributions of \$162,950, or an average of \$16.33 per member. Several congregations have established home missions in destitute localities, and the Synod has a mission among the Chinese in Oakland, Cal., the Jews in Philadelphia, the Indians in the Indian Territory, and the freedmen in Selma, Ala. The Board of Foreign Missions reported to the Synod a debt of \$10,000, which has since been reduced. The missions are in China, with Tak-Hing, on the West river, as a center, Syria, Asia Minor, and Cyprus.

VII. Reformed Presbyterian Church in North America—General Synod.—The General Synod met in Philadelphia in May. The Rev. G. W. Scott, of India, a native Hindu, was chosen moderator. The reports showed prosperity in all branches of the work of the Synod. The India presbyteries were declared to have equal rights, powers, and privileges with the other presbyteries under the care of the General Synod. These presbyteries reported 9 congregations, with 1,130 communicants, and a general prosperity, notwithstanding the famine and the plague. The General Synod had in 1898 41 ministers, 50 churches, and 6,288 communicants.

VIII. Cumberland Presbyterian Church.—The statistical reports of this Church are gradually becoming more complete, only 201 churches having failed to return the numbers of their communicants, and requiring to be estimated for, against 293 in 1896. The whole number of communicants returned is 180,635, against 175,642 in 1897. The number of additions during the year was 15,646, or 2,572 less than in 1896. Increase was shown in the number of churches with installed pastors, in the number with preaching every Sunday, and the number with Sunday school all the year; while the number of churches received by presbytery, the number of church houses dedicated, the number of parsonages erected, and the number of churches dissolved were less than in 1896.

The total resources of the Board of Education for the year were reported to the General Assembly to have been \$13,776. More than 60 students had been registered in the theological seminaries, while the number of beneficiaries and the attendance upon the colleges and preparatory schools had been about the same as in former years.

The Board of Ministerial Relief reported that it had not been able to help all the deserving applicants for aid. Less than one third of the congregations—900 out of 2,900—had contributed to the cause. The presbyteries were directed by the Assembly to use their power in at least one meeting during the year "to correct the negligence of their pastors and sessions by positively calling them to account for unfaithfulness."

The net profits of the publishing house had been

\$7,718. Four new books had been issued during the year and three others were in course of publication. Improvements to be made in the Sunday-school publications were under the consideration of a committee.

The year's receipts of the Board of Missions had been \$56,189, besides \$13,841 received from a legacy after the report had closed. Ten synods had regularly organized synodical missionary associations. The plan of co-operation between the board and the synodical associations adopted two years previously had worked satisfactorily. Home mission churches were maintained in fifteen cities of the United States. The mission in Mexico was represented by a church of 100 members, a Sunday school, a Christian Endeavor Society, and the Griffin Industrial School for Boys at Aguas Calientes. During the twenty years of the existence of the mission in Japan, 20 missionaries had been sent there, of whom 14 were at work at the present time. Of the 1,086 persons who had been baptized, 668 were still in connection with the churches. There were besides 6 ordained native ministers, 1 girls' school, a Bible school for the training of Bible women, English schools and classes, night schools and schools for the poor, and a kindergarten. Three missionaries had been sent out in September, 1897, one of them under the auspices of the Christian Endeavor Society, to establish a mission in China, expecting to labor in the province of Honan. Very little progress had been made in church extension. The report commended the Women's Board for its efficiency in disseminating missionary information and in the development of the young people and children in missionary activity.

The mission in Japan was begun in 1877 and has become a branch of the "Church of Christ" in Japan. From Sept. 26, 1880, till the close of 1897 there were 1,126 baptisms. The 6 churches were at the latter date ministered to by 4 ordained ministers, of whom 2 were installed pastors, while 15 chapels with informally organized groups of believers were served by 11 licensed evangelists. Ten Bible women were laboring among the women and children.

The eighteenth annual meeting of the Missionary Convention of Cumberland Presbyterian Women was held at McKeesport, Pa., May 14 to 17. The treasurer's receipts for the year had been \$13,995, and the payments \$13,019. Reports were made of work in the Southern mountain region, where two schools were sustained, and of the Chinese mission in San Francisco. Hindrance had been experienced from failures of the crops in some of the States.

The sixty-eighth General Assembly met at Marshall, Mo., May 19. Gen. H. H. Norman, of Murfreesborough, Tenn., was chosen moderator. A paper was presented by the representatives of the Cumberland Presbyterian Church in the Presbyterian Alliance relative to co-operation in home missions, explaining the plan which had been adopted by the alliance and its bearing upon the polity and interest of the Church. Accepting the report, the Assembly approved the plan, adding as an interpretation of the fourth section (advising that Presbyterian Church members of any branch, when moving into new communities in which there is no congregation of their own Church, unite for the time being with some other Presbyterian or Reformed Church, if such there be), that it was not intended to recommend that Cumberland Presbyterians under such circumstances should unite at once with another Presbyterian Church without consideration of Cumberland Presbyterian interests, but that when they decide to unite with a local congregation they give preference to a Church of the Presbyterian family. The Assembly further recommended that when

members move into a place where there is no Cumberland Presbyterian church "they consult the presbytery having jurisdiction as to the possibility of the organization of a Cumberland Presbyterian church in that community. If, in the opinion of the presbytery, such organization is advisable and probable, the member should be advised to retain his membership in the Cumberland Presbyterian communion, co-operating meanwhile in the local work of another Presbyterian Church. If, on the other hand, the presbytery thinks the organization of a Cumberland church in said community to be unadvisable, then the member should be advised to enter the communion of another Presbyterian Church." Of a report on Church government presented by a committee appointed to consider that subject, the Assembly adopted provisions advising against the selection of incompetent clerks of presbyteries and synods; recommending that clerks of presbyteries receive adequate remuneration for their services; urging that stated clerks become members of Sabbath schools; advising that sessions maintain better control of Sabbath schools and Christian Endeavor Societies; advising that when the sessions of a group of churches can not decide on a preacher the matter be referred to the Presbyterial Committee on Pastorates and Supplies; recommending the utmost care in the selection of that committee; commending the action of stated clerks of presbyteries in refusing to enroll names of ministers received on promise of letter, and of women as elders and preachers; and advising that one man serve as clerk and treasurer of the congregation, as was already contemplated with respect to the presbytery. A protest against the action of the previous General Assembly sustaining the course of the Synod of Kansas in seating a woman member of its meeting was referred to a committee which presented majority and minority reports. Both reports were tabled, the Assembly thereby refusing to reopen the question. The Sabbath report spoke of the dangers that menace the Christian Sabbath and of attempts to relax the observance of it, advised members of the Church to refrain from encouraging Sunday traffic in any way, and suggested the publication of a tract on the subject. The previous General Assembly had ordered the salary of the general manager of the publishing house to be reduced, whereupon he had refused to serve at the diminished compensation, and the board had continued him at the old rate. A presbytery sent up a protest against this condition. The Assembly's committee to whom the subject was referred found that the course of the board had been governed by regard for the best interests of the Church, and that if the General Assembly had had all the facts it would have approved it; so, while not commending any disobedience to the orders of the General Assembly, the committee recommended the continuance of the publishing agent at the old salary. The recommendation of the committee was concurred in. A manse department was instituted, to be under the direction of the Women's Board of Missions, with memberships at fifty cents a year, and synodical and presbyterial organizations; in the disbursement of the fund raised, half the amount received by any congregation to be considered as a gift, and half as a loan to be repaid in installments. A committee was appointed to draft a plan for synodical church extension work for the consideration of the next General Assembly. The Assembly reiterated its disapproval of church fairs and church entertainments where pay is taken at the door, and advised against the attendance of members on such things, even when given by other churches. The Assembly directed that no proposals for consolidation or co-operation should be made to other churches by any

part of this Church, nor if made by other churches, or parts thereof should be publicly considered by any part of this Church until the General Assembly shall have properly authorized such proceedings.

IX. Presbyterian Church in Canada.—The report of the Church and Manse Building Fund for Manitoba and the Northwest showed that since the fund was established, sixteen years ago, 305 churches and 63 manses had been built with the assistance of the committee. These buildings were valued at more than \$500,000.

The report of the Aged and Infirm Ministers' fund showed that the contributions for the past eleven months had been \$712 greater than for the previous full year. The churches had, however, failed to make up for the adverse balance from the preceding year. There was therefore a shortage in the fund, so that the question of paying annuitants in full upon the modified scale that had been acted upon during the last few years had become a serious one. The fund is made up of dues paid by ministers who connect themselves with it and of contributions from the churches; while ministers who do not contribute are given a share in the benefits. A special committee reported measures urging all ministers on ordination to connect themselves with the fund, and giving all who reach the age of sixty-seven years and have paid all the yearly rates the privilege of retiring from the active duties of the ministry and being placed upon the fund; ministers who fail to pay the annual rates not to be entitled to make any claim upon the fund as a matter of right, but to have their cases considered by the General Assembly. An effort is to be made to bring the fund up to at least \$200,000.

Reports from 993 Young People's Societies, 783 of which were Christian Endeavor Societies, gave a total of 36,521 members, a decrease from the previous year of 1,888. Some societies had been disbanded and many new ones had been formed, and the actual whole number was estimated to be nearly 1,200. The proportion of young men to young women in the societies was about as 37 to 64. The number of young men was relatively larger in the rural districts, while in towns and cities it was sometimes quite insignificant. The contributions of the societies had been smaller than in 1896—\$29,306, as against \$34,181—and the average per society had fallen from \$38 to a little more than \$29.

Reports from 2,144 Sabbath schools showed an attendance of 18,819 officers and teachers and 154,000 pupils, nearly 68 per cent. of whom were present every Sabbath, while 67,169 persons were studying their lessons at home. The figures show an increase during the year of 227 schools and 3,750 pupils, and a decrease of 381 studying their lessons at home. The Sabbath schools had contributed \$24,541, an increase of \$276, to the schemes of the Church, and \$9,821 to other objects; while the congregations had contributed \$11,956 to the support of the schools, and the schools \$52,262 to their own support.

The work of French evangelization included 38 fields, having 94 preaching stations, served by 28 ordained missionaries, 16 colporteurs and students, and 21 missionary teachers. The interest among the people to whom the work is directed was represented as increasing.

The General Assembly met in Montreal, June 15. The Rev. Robert Torrance, D. D., was chosen moderator. The Home Mission Committee of the eastern section—including the maritime provinces, Labrador, and Bermuda—reported that its receipts, \$14,245, had been \$849 less than those of the preceding year; the latter had, however, been increased through the responses to a special appeal for the removal of the debt. The receipts of the committee

for the western section, including the other provinces of the Dominion, had been exceptionally large, having been increased by gifts of \$12,000 from British sources, and by contributions of \$7,000 for the special Klondike fund. A suggestion was made in the discussion of these reports that it might be advisable to give the home missionaries a furlough, such as is given them in India and elsewhere, so that they might be refreshed by a visit to the presbytery and to the Assembly, privileges which are now denied to many. The statement was also made that no Church in the new world or the old world had so large a home mission field in proportion to its resources as the Presbyterian Church in Canada. Communications were received from the woman missionaries in India, taking exception to certain representations which had been made to the Church at home, such as that the friction in the mission was aggravated by the women not confining their speaking and voting to their own work. The woman missionaries said that they had no desire to infringe on the rights of presbyteries, but expressed themselves opposed to the ruling adopted by the General Assembly at its last meeting, that they should be constituted into a council, with the right to meet, discuss, and formulate their views on all matters bearing upon their own work. They held that in all matters ecclesiastical there ought to be perfect equality, with one council, composed of men and women, and that the formation of a second council would be very injurious to the work. The subject was referred to a committee, upon whose report the Assembly agreed that ordained missionaries of one year's standing who have passed their first examination in the native language shall be a finance committee; that a women's council shall be formed of the woman missionaries, the estimates of the one and the plans of the other to be under the supervision of the Foreign Mission Committee. A proposition for the reorganization of the Home Mission Committee, assigning to it the duty of looking after the men and the money for the supply of the whole field; while the supervision of the details of home mission work should be left with the various synods—as was already done with respect to the Western Synod—was referred to a committee to report upon it the next year. Provision was made for obtaining from the various legislatures and the Dominion Parliament acts of incorporation for the Board of Trustees of the Presbyterian Church in Canada, to have power to receive gifts and conveyances, and to make a legal transfer of them. The reports of the colleges—Morrin College, Quebec, Manitoba College, Queen's University and College, Knox College, Toronto, and the Brantford Ladies' College—engaged a considerable proportion of the attention of the Assembly.

X. Church of Scotland.—The 1,789 churches and preaching stations of the Established Church of Scotland returned for 1898 about 1,850 ministers, 641,808 communicants, and 2,200 Sunday schools, with 21,174 teachers and 229,302 pupils. The total income of the Church for all purposes was £485,695. The reports showed increase in nearly every department. The income for home missions was £12,688, an increase of £600. The receipts for foreign missions—nearly £50,000—were the largest ever recorded. These missions returned 8,156 baptized persons, 13,000 pupils in mission schools, and 1,400 zenana pupils. The number of members in the home churches was 8,395 more than in the previous year. The Association for the Augmentation of Smaller Livings had distributed £8,178 among 335 livings. A further sum of £6,000 would be required to bring all the livings up to £200 per annum. Seventy-one livings had been permanently augmented.

The General Assembly met in Edinburgh, May 19. The Rev. Dr. William Leishman was chosen moderator. A report of the expressions of the presbyteries upon an overture sent down to them by the previous General Assembly for the extension of the pastorate and the granting of ordination to probationers, showed that 25 presbyteries had approved, 10 desired delay, 8 recommended a period of practical training before ordination, and 32 considered no change necessary. A modified scheme was submitted by the Reform Committee to the effect that a period of probation should be served by all, and at the end of the time a certificate should be granted showing that the probationer had passed to the satisfaction of his minister and the presbytery. A motion was carried recommending that presbyteries should use more freely the powers they already possess for granting ordination in special cases. In connection with the passage of a resolution affirming the responsibilities of presbyteries in regard to visitation, a committee was appointed to consider and report to the next General Assembly a plan of legislation defining the objects of visitation, and to formulate a system for it. The new hymnal for all the Presbyterian churches was adopted. The subjects of religious education, disestablishment, and the contemplated union of the United Presbyterian and Free Churches were discussed in the light of their bearing on the religious interests and the prospects of the Established Church.

XI. Free Church of Scotland.—Reports made to the General Assembly in May showed that at the end of the year 1897 there were 1,107 congregations connected with this Church, with 290,789 communicants and 111,346 adherents. The total income for the year ending March 31, 1898, was £666,400. Of this total sum more than £186,000 had gone to the support of the ministry, £12,900 to home missions, £75,865 to foreign, colonial, and Jewish missions, and £40,600 to education and colleges.

The General Assembly met in Edinburgh, May 19. The financial reports showed a decrease for the year of £7,000 in total income; but, as the total income of the previous year represented an increase of £23,000, the present result was not regarded as indicating any real tendency to a decline. The Committee on Union reported concerning continued negotiations for union with the United Presbyterian Church, and recommending that the preliminary steps be taken toward an incorporating union. A motion offered by Principal Rainey represented that the proposed questions and formula fully preserved the vital principles of the Church, and along with the accompanying outline of the uniting act formed a basis on which the two churches might worthily and happily unite; and directed that the report be remitted to the presbyteries for their consideration, and that the committee be reappointed for further negotiation. A protest signed by "about a dozen" ministers was offered, which maintained that the proposals for union were not of a character that could be completely adopted. The motion of Principal Rainey was adopted by a vote of 496 to 41. On the presentation of the report of the Committee on Church and State, a resolution was adopted reaffirming the findings of previous Assemblies, that the present alliance of Church and state in Scotland ought to come to an end, in the interest alike of public justice, of ecclesiastical freedom, and the unity, welfare, and efficiency of the Presbyterian Church in Scotland. The new hymnal which has been prepared by a committee representing the various Presbyterian Churches of Scotland and Ireland, was adopted.

XII. United Presbyterian Church in Scotland.—This Church has, according to the statistical

reports for 1898, 582 congregations, 622 ordained ministers, 195,631 communicants, and 12,000 teachers, and 105,701 pupils in Sunday schools; and returns a total income of £398,314.

The Synod met in Edinburgh, May 2. The Rev. William Blair, D. D., was chosen moderator. The reports from the churches showed a decrease in total income, and a slight falling off in membership and attendance at Sunday schools and Bible classes. The Committee on Union with the Free Church of Scotland reported that they had found that the standards of the two churches were practically the same, and believed that each Church could enter into the union with all its existing rights and liberties conserved, and all its traditions and testimonies behind it. The Sustentation and Augmentation funds could be worked side by side. On account of the large size of the united Church, it would be necessary to have a representative Assembly. In dealing with such large and far-reaching influences, it was impossible to draw up a hard-and-fast scheme and endeavor to impose it on the churches. They would require to feel their way. The Synod expressed satisfaction with the progress made in the matter of the proposed union, and remitted the subject to the presbyteries and sessions of the Church for approval and suggestions; reappointed the committee with instructions to continue the negotiations; and urged presbyteries to cultivate friendly relations with the Free Church, and to co-operate with it in Christian work as far as possible.

XIII. Presbyterian Church in Ireland.—This Church has 84,000 families under its care, and a yearly income of £192,000. The debt amounts to more than £80,000. Its annihilation is included in the proposed twentieth-century scheme. The supplementary dividend of the Sustentation fund since it was started, twenty-seven years ago, has fallen from £22 to £11.

The Foreign Mission Committee reported that the native membership in the Chinese mission had increased from 1,800 to 3,234; that 1,473 persons had been baptized during the year; and that about 1,600 inquirers were under instruction. In connection with the Jewish mission, 24 had been baptized. The report of the Colportage Committee showed a very large increase in the number of Bibles sold, the present number being about 8,000 Protestant Bibles and 2,500 of the Douay Version.

The General Assembly met at Belfast in June. A memorial signed by 135 out of 400 members of the First church at Strathbane was presented against the use of an organ there. The General Assembly had decided in 1884 not to interfere with congregations desiring to use instruments in their praise service. A small organ had been introduced into the Sunday-school services of the Strathbane church about twenty years before. Recently the session had received a petition for the introduction of an organ into the Church services. The subject was referred to the stipend payers, who pronounced by a large majority in favor of the organ. The presbytery was appealed to by the opponents of the innovation, who were represented in the memorial before the Assembly, but refused to interfere. The matter was then taken to the synod, and it instructed the presbytery to have the organ removed. The decision of the General Assembly reversed the order of the synod, being: "That the memorial be received; that, inasmuch as the session are unanimous in favor of having instrumental aid in conducting the worship of the sanctuary, and inasmuch as the great majority of the congregation are with them, the Assembly does not see reason to interfere with their action in the matter." The vote upon this decision was 125 in

the affirmative to 63 in the negative. The reports on temperance showing that a considerable number of the office bearers of the Church do not practice total abstinence, a motion was adopted urging "on ministers, ruling elders, Sabbath-school teachers, and all members of the Church the great and pressing duty of personal abstinence."

XIV. Presbyterian Church in England.—The returns of this Church showed an increase both of congregations and of members. There were 327 churches and preaching stations, affording accommodation for 162,644 persons. The number of communicants was 71,444, and the value of church property £1,801,215, against which were debts amounting to £81,073. The aggregate sum of £270,577 had been raised for all purposes during the year, an increase of £9,007 from the previous year. Since the Synod was constituted in England in 1876, the number of congregations in that country had increased from 271 to 327, and of members from 34,146 to 162,644, while the value of the church property had improved from £973,485 to £1,801,215; the debts thereon had decreased from £121,173 to £81,073. The home mission report urged measures to raise the £20,000 needed to complete the £50,000 aimed at as a Church Building fund. The London Presbytery had during the year initiated ten church extension efforts.

The amount of contributions by the home churches to the Foreign Mission fund had been £25,000; besides which the native churches had made considerable contributions for the extension of work in their several fields. The society had in China 160 stations, 55 medical and other European missionaries, 25 of whom were women, without reckoning wives of missionaries; 153 native agents, 69 organized congregations, 10 hospitals, 15 native pastors entirely supported by their congregations, and 5,466 communicants.

The Synod met in Liverpool, late in April. The Rev. William Hutton was chosen moderator. The report on religion and morals mentioned indications in the returns from the churches of earnest spiritual life throughout the denomination. The Synod recorded its "peculiar satisfaction in the continued expansion of interest in the Sunday-school examinations, and especially in the fact that pupils connected with the mission church in China had taken part in the scriptural examinations. A plan for increased representation of the eldership in presbyteries, and suggestions of schemes to provide a more frequent interchange of pastors, either by an optional time limit or otherwise, were sent down to presbyteries and sessions for consideration and report. Charges were preferred against the Rev. Dr. John Watson, pastor of the church in which the Synod was held, and known in literature as "Ian Maclaren," based on his teaching in the book "The Mind of the Master," but were not entertained.

XV. Welsh Calvinistic Methodist Church.—The General Assembly met at Newport, Monmouthshire, June 14. The Rev. Evan Jones was chosen to preside instead of the moderator-elect, Rev. John Roberts, who had been obliged to return to the mission field in India. The report on foreign missions, of which the chief stations are in the Khassia Hills, India, showed general progress. The sum of £14,000 had been contributed by the home churches to repair the loss occasioned by an earthquake suffered the previous year. The report on the state of the denomination showed growth in every direction. The Presbyterian Joint Committee reported favorable progress in the matter of transference of church members, in which the Free and the United Presbyterian Churches of Scotland, and the Presbyterian Church in Ireland, England, and Wales

were co-operating, and expressed the hope that each Church would continue efforts to make the transference of members as complete as possible, so as to keep in touch with every moving member at home and abroad, and reduce the loss by leakage to as low a point as possible. The Forward Movement Committee reported that during the last seven years the movement had gained from among the lowest classes of society in large towns and industrial districts as many as 15,000 or 20,000 people. Of 30 churches established during that time, several were now self-supporting. A report of a joint committee of this Church and the Welsh Congregational churches looking to the cultivation of closer relations through exchange of pulpits and interchange of fraternal delegates, was adopted.

PRINCE EDWARD ISLAND, a province of the Dominion of Canada; area, 2,133 square miles; population in 1891, 109,088. Capital, Charlottetown.

Government and Politics.—In 1897 Frederick Peters, who had been Premier of the island several years, resigned and removed to British Columbia, where he entered a legal partnership with Sir C. H. Tupper. His place was taken by the Hon. A. B. Warburton, who, however, before many months accepted a judgeship, and also resigned. Before doing this he pressed upon the Dominion certain claims which the province wanted settled and which previous governments at Ottawa had refused to accept. The following was the basis of a memorandum unsuccessfully submitted by Messrs. Warburton, Macdonald, and Richards:

"1. Failure to provide steam accommodation. 2. The terms of union were incorrectly worked out. It assumed net debt and obligations resting on the Dominion at the time much lower than the actual amount. The cost of completing the Intercolonial and Canadian Pacific Railways and the canals was \$75,000,000 more than was computed. Prince Edward's share of this expenditure was \$1,101,926. 3. The island has been left out in railway subsidies given to other provinces. 4. The province is entitled to a larger share of the fishery award than has been assigned. The delegates mention that some of these claims, when presented by Senator Ferguson and his associates, had been acknowledged. They proposed that those claims be submitted to arbitration."

On Aug. 9, 1898, the following new Cabinet was announced, Liberal, like its predecessors: Hon. D. Farquharson, Premier; Hon. H. C. McDonald, Attorney-General; Hon. Angus McMillan, Provincial Secretary and Commissioner of Public Lands; Hon. James R. McLean, Commissioner of Public Works; without portfolio, the following: Hon. James W. Richards, Hon. Peter Sinclair, Hon. Benjamin Rogers, Hon. Peter McNutt, and Hon. A. McLaughlin. It was also stated that a new Department of Agriculture would be created. The "Summerside Journal" described Mr. Farquharson, from a personal and not political standpoint, as follows: "The new Premier is a very shrewd and successful business man, a speaker of some considerable ability, and well posted in political matters, he having been in politics for the past twenty-two years, during all of which time he has occupied a seat in the local Legislature. He is a very strong temperance man, and has long been an active and vigorous worker in that cause." The Opposition was naturally not so well satisfied, and in a by-election that ensued in Queen's County it gave the new Government a bad blow by electing the Hon. W. Campbell, a Conservative, to replace the late Premier Warburton in the Assembly. The following is a summary of the Opposition policy and charges.

The Peters Government, they allege, came into power facing a debt, according to their own Auditor,

of \$171,000. They issued debentures to the amount of \$185,000 to pay off that debt, yet, at present, as a result of mismanagement and indefensible extravagance, the public debt of the province is considerably more than \$500,000, and the Farquharson Government have no prospect of reducing it except by vastly increasing direct taxation. The Conservative Government successfully carried on public affairs for many years without levying a cent of taxation; but the Liberal Government levied taxes on lands and buildings, on incomes, on commercial travelers, and on nearly everything that was taxable, and still failed to make ends meet or to keep down the debt, which the ratepayers of the island must ere long face. The Conservatives never interfered with the school act, but the Liberals have laid violent hands upon it, and shorn it of one of its essential features, and thus materially decreased the salaries of teachers and given education a setback from which it will require years to recover. The Conservatives carried on the public works of the province in a careful and economical yet efficient manner. The Liberals have made the Public Works Department a vehicle for extravagance of the most pronounced character, and have scattered contracts and jobs with a lavish hand "where they would do the most good"—that is, where they would bring support to the Government. And to-day the roads and bridges in many parts of the province are in a wretched condition. The way the Liberals spent the money on the roads of this province at election times, without receiving value for these expenditures, was something shameful, and a scandal to the province.

Prohibition.—The central question of importance in island politics during the year was that of prohibition. It has always been a foremost one, and many public men are in favor of the policy. In December, 1893, the people were asked by the Peters Government whether they favored it or not, and 14,000 electors cast their ballot as follows: Queen's County, 4,226 for, and 1,513 against; Prince County, 3,579 for, and 1,109 against; King's County, 2,811 for, and 768 against; total, 10,616 for, and 3,390 against. After that time nothing definite was done until the Dominion plebiscite took place, Sept. 29, resulting in a vote of 5,617 in favor to 425 against. An important point in the general controversy was the following extract from a letter dated April 7, 1898, from the Dominion Minister of Justice to Mr. Warburton, then Premier: "The regulations to which you refer are all within the jurisdiction of the Provincial Legislature, and it is open to the Legislature to legislate in the direction which you indicate, as far as they think it in the public interest to go, to the extent of total prohibition. There is nothing to prevent any province prohibiting the sale of intoxicants for consumption as a beverage within the limits of the province, if so disposed."

Miscellaneous.—The Hon. David Laird was appointed to the superintendency of the Northwest Indians. For many years he had been an energetic journalist and citizen of Charlottetown.

Considerable progress was made in dairying and cheese production during the year, and a public report on the subject presented by Mr. A. W. Woodward.

Several railway projects were pressed upon public attention, but so far unsuccessfully.

PROTESTANT EPISCOPAL CHURCH IN THE UNITED STATES. A summary of the statistics of Church progress in the year shows the following: The number of dioceses in the United States, 58; missionary jurisdictions in the United States, 17; missionary districts in foreign lands, 4; clergy (bishops, 84; priests and deacons, 4,734),

4,818; parishes and missions, 6,458; candidates for holy orders, 496; ordinations—deacons, 161; priests, 183; baptisms, 63,229; confirmations, 44,788; communicants, 680,205; marriages, 17,693; burials, 35,073; Sunday-school teachers, 46,397; Sunday-school scholars, 434,560; total of contributions, \$13,816,669.84.

The gross receipts for missions for the fiscal year that ended Aug. 31, including those for "specials" and miscellaneous purposes, amounted to \$770,966.99. The contributions for the work undertaken by the board were \$402,540.74, and the amount received for legacies for designated uses \$92,615.50, making the amount at the disposal of the board \$495,156.24, of which \$15,708.31 was deposited to protect outstanding liabilities, leaving to be applied to the payment of appropriations \$479,447.93. Legacies amounting to \$57,975 were permanently invested. The number of parishes and missions contributing was 3,722, or 275 more than during the last fiscal year. The number of contributors and the amount of church offerings were larger than in any previous year. The year was closed without debt. The Lenten offering from Sunday schools, amounting to \$81,761.09, was the largest yet made by \$5,647.50, and was an increase of \$18,599.99 over last year's offering. The number of schools contributing was 3,031, a gain of 401 compared with the previous year.

The gross receipts for domestic mission work (including a balance from 1897 of \$36,854.52) were \$400,426.57. The expenditure (including \$53,959.71 for Indian and \$54,595.50 for colored missions) was \$252,845.72; specials amounted to \$35,674.76; legacy expenses (one half), \$145.12; one half of cost of administration and collection, \$12,342.15; one half of cost of printing reports of the board, "Spirit of Missions," etc., \$9,371.70; legacies for investment, \$26,437.50; one half amount paid to an annuitant, \$150; returned to Standing Committee on Trust Funds, \$32,000; transfers, \$50.22; making the total expenditure for domestic missions \$369,017.17, and leaving for domestic missions and specials at the close of the fiscal year a balance of \$31,409.40. The salaries of the bishops and the stipends of the missionaries in 19 missionary jurisdictions were paid, and, in addition, assistance was given to 41 dioceses. The whole number of missionaries, clerical and lay, male and female, receiving salaries or stipends was 1,126, an increase since 1897 of 120, and the amount appropriated for the whole work (including the sums not directly chargeable to the dioceses) was \$281,694. A larger number of parishes (with one exception) contributed for domestic missions than ever before, the number given being 3,505, an excess over 1897 of 264.

The gross receipts for foreign missions (including a balance from 1897 of \$25,248.87) were \$350,957.28. The expenditures were: On account of mission work, \$186,525.44; specials, \$42,368.30; legacy expenses (one half), \$145.11; one half of cost of administration and collection, \$12,342.14; one half cost of printing reports of the board, "Spirit of Missions," etc., \$9,371.70; legacies for investment, \$26,437.50; one half amount paid to an annuitant, \$150; returned to Standing Committee on Trust Funds, \$44,689.48; making the total amount of payments for foreign missions \$322,029.67, and leaving for foreign missions and specials at the close of the fiscal year \$28,927.56. The number of parishes and missions that contributed to foreign missions was 3,490, being 282 more than in 1897 and a few more than any previous year, and the amount given by them was greater than ever before.

The total number of mission stations reporting to the commission on work among the colored people is 135, and a summary of the approximate

results during the last twelve months gives: Number of dioceses aided, 24; persons confirmed, 818; communicants (1897), 6,608; (1898) 7,556; baptized, 1,479; Sunday-school scholars (average), 6,248; teachers, 633; day scholars (average), 3,940; teachers, 128. Net value of mission buildings, etc., \$420,439; amount of collections, \$24,864.92. The number of colored clergy is 88, of whom 75 are laboring in these dioceses. About 60 white clergymen also take part in the work.

The Bishop of Nevada and Utah, while reporting that every parish and mission in Utah has made a contribution to the general missionary work of the Church during the year, says: "With difficulty have we maintained our work. Mormonism has as strong a hold as ever; indeed, I am not sure but that it has a stronger hold. It is most aggressive in its methods. Many hundred missionaries are at work in all parts of this country."

The result of Church work among the aboriginal races is most encouraging. Statistics of the Alaskan mission give the number of clergy, 7; church edifices, 9; organized missions, 9; unorganized missions, 12 (an increase of 11 missions during the year); communicants, 294; Sunday-school teachers, 12; Sunday-school scholars, 317; teachers in schools for natives, 5; scholars in schools for natives, 317. The baptisms during the year were 214; the confirmations, 38; and the amount of contributions, \$2,113, an increase from \$542 in 1897. In South Dakota, where is the largest Indian work, the Right Rev. Dr. Hare completed twenty-five years of service as missionary bishop, and more than 3,000 Indians gathered in attendance upon the twenty-fifth annual convocation of the Church in South Dakota, held last autumn in the Rosebud reservation. The results of Bishop Hare's great work are the chapels, schools, and the 70 congregations scattered over that great prairie waste, in which now stand 53 neat churches, 37 mission houses, 4 boarding-school houses averaging 50 pupils each, and 33 residences. More than 10,000 Sioux Indians have been baptized, 12 of whom have been trained, educated, ordained, and sent to minister to their own people.

Church work among the Swedes has grown and prospered in a measure unprecedented in the history of any mission that the Church has yet undertaken among foreign-speaking people in the United States. Within eleven years 30 parishes and mission stations have been established, 18 of which possess their own church building, administered by 22 Swedish clergymen of this Church, and having about 7,500 communicants. During the past year there have been nearly 1,000 persons baptized, and upward of 200 confirmed. There have been about 2,150 public services held, and \$20,000 contributed toward the maintenance of the clergy.

Never in the history of foreign missions has the outlook for aggressive Christian work seemed more propitious. In Liberia, the national Legislature at its last session exempted the mission schools from duties on all goods and building material imported into the country. Four town lots and 150 acres of farm land were granted to the mission at two places on Caralla river, 80 acres at Newcress, and at the previous session a tract of 20 acres was given at Cape Mount, making 50 acres at that place. Statistics of the West African mission for the year show that there are 15 day schools, 15 boarding schools, and 22 Sunday schools now in operation in connection with the mission. The church buildings number 7; the places where service is held, 83; there are 3 mission houses and 1 school, American built, and 15 mission houses, used also for school purposes, native built. The baptisms during the year were 336; the confirmations, 86; and the contributions amounted to \$1,875.96.

In China there has been a marked increase in both educational and evangelistic work. The baptisms of natives were 385; confirmations, 183; amount of contributions, \$1,020.43. Early in the year the complete prayer book in the classical style, *Wen-li*, was issued. The bishop has prepared an edition in Mandarin, and the first part of the prayer book has been prepared and printed in the Shanghai colloquial. The schools at Shanghai have been doing excellent work. The great changes that are taking place in the empire are leading the Chinese to seek for Western learning in larger numbers, and so great is the demand that the schools can not receive a tenth of those who apply for admission. Recently a Chinaman received a degree for writing out the Ten Commandments and commenting upon them. They were represented as "the great code of laws of the western nations." The Scriptures in China have at last gained a recognition by the Government, and a knowledge of them is required from students in the state examinations.

Of the Japan mission the Bishop of Tokio says: "The spiritual tone of our people is steadily rising. This is evidenced by the increased interest in missions, by the organization in both dioceses of woman's auxiliaries to the Japanese Missionary Society, and in more churchly ways of thinking, working, and worshipping. There is also a marked advance in the matter of self-support. Nearly every station has increased its contributions to the various activities of the Church. There has been a decided increase in the number of pupils in all of our schools. This is largely due in the case of our boys' schools to the fact that they are now recognized by the Japanese Government and conform themselves to the Government regulations. We have been much concerned by the attitude of the Government toward religious instruction in schools receiving its license. It assumes strict neutrality toward religious instruction, whether Shinto, Buddhist, or Christian, during the hours in which the fixed curriculum is to be taught. We have consented to this rule as a condition for Government recognition, but claim and exercise the liberty of teaching Christianity before and after school hours in the school buildings. Since receiving Government license the students in St. Paul's College have doubled in number."

In the year 4 churches were consecrated, 3 deacons advanced to the priesthood: 250 Japanese baptized, 203 confirmed, and \$5,150.79 contributed. Mission work was extended into Kanazawa, the largest and most flourishing city on the west coast.

A movement of importance was inaugurated by the Haytian Church at its last annual convocation, whereby that Church entered into an agreement to receive the congregation of the Holy Trinity at San Petro de Macoris, in the Republic of Dominica, into its jurisdiction. The Church in Hayti abstains from engaging to give the congregation pecuniary aid. Statistics of the Haytian Church give: Clergy, 12; mission stations, 20; candidates for orders, 3; lay readers, 18; teachers, 11; Sunday-school teachers, 12; baptisms, 65; confirmations, 9; communicants, 480; marriages, 6; burials, 42; day scholars, 190; Sunday-school pupils, 301; total of contributions, \$2,536.42.

The condition of the Mexican Episcopal Church continues to be encouraging. It has 7 priests, 7 deacons, 2 candidates for orders, 5 other readers, 28 congregations, 6 parish schools, 6 teachers, and about 250 scholars. The baptisms during the year were 112; confirmations, 73; and communicants, 572.

Miss Marion Muir, who since 1867 has been the most efficient head of the Greek Mission School, died suddenly on Aug. 15. The Board of Missions

has since determined to close the school and end the work, which was begun in 1829.

The receipts of the American Church Missionary Society amounted to \$34,032.50; the disbursements to \$29,917.11. Of these sums the receipts for the working of the society were \$27,714.76; the expenditures, \$29,917.11. Of the balance cash on hand, \$14,199.41, the sum of \$4,984.10 is available for the work of the society. The society kept alive the work in Cuba throughout the war.

The contributions for the Brazilian work were \$12,700, and no work in the Church has increased as that has, the expenses remaining practically the same. The number confirmed in Brazil in the year was 116, and the contributions there amounted to \$3,410. The Book of Common Prayer has been translated into Portuguese.

The summary of the work accomplished in the year by the Woman's Auxiliary and its junior department, in which 2,449 parishes and missions took part—379 more than last year—shows an increase in contributions to the amount of \$24,921.36. In money \$219,076.19 was given, and boxes valued at \$180,359.82. Of this total of \$399,436.01, the junior department gave money and boxes to the amount of \$45,240. In addition to these contributions the triennial "united offering" presented at the meeting of the General Convention amounted to \$80,475.69, which amount will be devoted to the Christian education of women. The united offering of the Woman's Auxiliary in 1901 is to be given to the Board of Missions, with the request that it be divided into equal parts—one part to be given to each of the missionary bishops who shall be in charge of domestic or foreign jurisdictions at the time, and one equal part to be given to the commission for work among the colored people, to be used at their discretion; the offerings in each case to be reckoned as specials, and in addition to the appropriations made by the Board of Missions.

The American Church Building Fund Commission reports that in the year gifts to the amount of \$3,050 were made to 23 churches, and loans amounting to \$16,725 were made to 10 churches. The contributions to the Permanent Building Fund were \$45,274.02; interest on loans and investments amounted to \$13,408.94, and the loans returned to \$30,484.74. Two gifts amounting to \$500 were also returned. The fund now amounts to \$343,891.64.

The General Convention of 1898 met in Washington, Oct. 5. The following action was taken: A new diocese was constituted by the division of the Diocese of Indiana. The new diocese comprises all the counties of the State of Indiana north of the southern limits of Benton, White, Carroll, Howard, Grant, Blackford, and Jay Counties.

The seven missionary jurisdictions of Idaho, Nevada and Utah, northern California, the Platte, western Colorado, Wyoming, and Spokane were rearranged as to their boundaries, and all except the last were renamed.

The new missionary jurisdictions are as follow:

Boise.—Southern Idaho and greater part of western Wyoming.

Laramie.—Western Nebraska and eastern Wyoming. Laramie was placed under the charge of Bishop Anson Rogers Graves, formerly Bishop of the Platte.

Sacramento.—Northern California and western Nevada.

Salt Lake.—Utah, western Colorado, eastern Nevada, and a small part of southwest Wyoming. This missionary jurisdiction was placed under the charge of Bishop Abiel Leonard, formerly Bishop of Nevada, Utah, and western Colorado.

Spokane.—Eastern Washington and northern Idaho. Placed under the charge of Bishop Wells.

The following missionary bishops were elected: Asheville.—The Rev. Junius Moore Horner, associate principal of Horner School, Oxford, N. C.

Boise.—The Rev. James Bowen Funsten, rector of Trinity Church, Portsmouth, Va.

North Dakota.—The Rev. Samuel Cook Edsall, D. D., rector of St. Peter's Church, Chicago.

Sacramento.—The Rev. William Hall Moreland, rector of St. Luke's Church, San Francisco.

A new foreign missionary jurisdiction was formed in Japan, to be known as the missionary district of Kioto, which was placed under the charge of Bishop McKim, of North Tokio.

Rev. Lucien Lee Kinsolving, rector of the Church of the Saviour, Rio Grande, Brazil, and resident representative of the bishop in charge of the Church in Brazil, was elected, and nominated to the presiding bishop for consecration as Bishop for the United States of Brazil, with the title of Bishop of Rio Grande do Sul, Brazil.

A memorial was received from the churches in Europe, asking for a more adequate provision for episcopal oversight, and a petition by members of the Anglican Church resident in Honolulu was presented. It prayed that the Anglican Church in the Hawaiian Islands may be received into the Protestant Episcopal Church as a missionary jurisdiction, and that it may have union with the General Convention.

The action of the General Convention indicated the policy of the Church that while Cuba, so long as she was semi-independent, could not form part of the territory of the Church, Puerto Rico passed under her jurisdiction on its cession to the United States. It was resolved: "That in behalf of Puerto Rico the Board of Managers of the Board of Missions be requested to take such action as, after conference with the Bishop of Antigua, may be deemed practicable and desirable"; and the work in Cuba was placed under the oversight of the Committee on the increased Responsibilities of the Church, who are instructed "to ascertain by correspondence, and, if practicable, personal visitation, all available facts in the case, and to report to the Board of Missions such facts, with any recommendations which they may think it expedient to make."

Various revisions of the constitution were made, notably one intended to further church unity; and the dissolution of the Prayer-Book Society was consummated. It was determined that the General Convention of 1901 shall meet in San Francisco.

The statistics of the Anglican Church in Hawaii for 1898 show: Number of clergy, 8; church edifices, 7; parishes and missions, 9; baptisms, 100; confirmations, 81; communicants, 600; Sunday-school teachers, 22; Sunday-school scholars, 300; parish school teachers, 5; parish school scholars, 96; contributions, \$6,800.

William Stevens Perry, D. D., LL. D., D. C. L., second Bishop of Iowa, died May 13; Charles Todd Quintard, M. D., D. D., LL. D., second Bishop of Tennessee, died Feb. 15; John Henry Ducachet Wingfield, D. D., LL. D., first Missionary Bishop of Northern California, died July 27. The Church lost by death 97 other clergymen also. On Jan. 27 the Rev. William Neilson McVickar, D. D., rector of Holy Trinity Church, Philadelphia, having been duly elected Bishop Coadjutor of the Diocese of Rhode Island, was consecrated bishop. June 24, the Venerable William Montgomery Brown, Archdeacon of Ohio, having been duly elected Bishop Coadjutor of the Diocese of Arkansas, was consecrated bishop. Sept. 6 the Rev. Thomas Edward Green, S. T. D., D. D., rector of Grace Church, Cedar Rapids, Iowa, was elected bishop of the diocese in succession to the Right Rev. William Stevens Perry, but he declined the office.

Q

QUEBEC, a province of the Dominion of Canada; area, 228,900 square miles; population in 1891, 1,488,535. Capital, Quebec.

Government and Politics.—The Marchand Government, which assumed office after the general elections of May, 1897, has an excellent record, upon the whole. Faults there have been of course, and the Conservative Opposition have bitterly contested certain vacant seats—notably in December, 1898, when four seats were vacant at once. But the Government has been fairly sustained. At a banquet given to the Hon. F. G. Marchand in Montreal, on Jan. 26, 1898, he announced his policy as being one of economy and the re-establishment of the much-disturbed finances of the province. This principle seems to have been consistently carried out. On Nov. 23, 1897, the first session of the ninth Legislature was opened by Sir J. A. Chapleau, Lieutenant Governor, with a speech from the throne, in which he said:

"You have reason to rejoice that the Dispenser of all good has been pleased to grant this province a bountiful harvest, and that the produce of our agricultural industry has found favor on foreign markets, which leads us to hope for ever-increasing remunerative prices in the future. This is for all the assurance of prosperity.

"You will be called upon to give your assent to measures of the highest importance. Among these a new law on public instruction occupies the first place. It contains important changes in the old law, without other innovations, however, than those necessitated by the requirements of the hour. Fully alive to the responsibility that devolves upon it as regards everything connected with the welfare and progress of the province, the Government can not fail to evince an interest in so important a question as that of education. Thus the bill that will be submitted to you contains a provision for the creation of a Ministry of Public Instruction, the working whereof will not entail additional expense, for the number of ministers will remain the same as at present.

"Agriculture and colonization have already received the most careful attention from my Government, and such attention will continue to be given. It is but proper that we should take advantage of the tide of colonization flowing toward our arable lands and attract our energetic and patriotic settlers to the newly opened townships.

"My Government has also undertaken the mission of improving municipal roads, and it will spare no effort to give a continual and increasing impetus to that policy which is destined to produce the most beneficial results and to increase the welfare and wealth of our population.

"I am pleased to observe the new vigor that seems to be manifested by our manufacturing industries. The immense water powers scattered throughout the province and that have remained undeveloped for so many years are beginning to be utilized. Thanks to them, new industries have been established and have already produced excellent results.

"My Government, on assuming power, was compelled to fulfill obligations undertaken by the late Administration, and for which no provision was made in the budget of the last fiscal year. The result of the obligations thus contracted has been a considerable deficit and the creation of a floating debt which makes it necessary for the Government

to have recourse to a new loan in order to consolidate it.

"By an act of Parliament of the United Kingdom of Great Britain and Ireland entitled 'An Act respecting the establishment of provinces in the Dominion of Canada,' it was enacted that the Parliament of Canada might from time to time, with the consent of the Legislature of the province, increase, diminish, or otherwise alter the limits of such province, upon such terms and conditions as might be agreed upon by the Legislature of such province. The late Government passed an order in Council accepting the description of the northern limits of the province offered by the Federal authorities. This order in Council was considered by the Federal Government as insufficient to fully satisfy the requirements of the law in this matter. You will be called upon to pass an act whereby the province will consent to accept the limits thus determined, so that the Parliament of Canada may definitely establish them. This legislation is required to give effect to the agreement and to enable the Federal power by definite legislation to place on record the acknowledgment of the rights of the province. You will be happy to learn that by the passing of that act, the area of the province of Quebec will be increased by 67,499,950 acres of land."

The Hon. Horace Archambault was elected Speaker of the Legislative Council, and the Hon. Jules Tessier Speaker of the Assembly. The Legislature adjourned on Jan. 15, 1898. The proposed school legislation was perhaps the most important matter of the session. A bill was introduced by the Hon. J. E. Robideux on Dec. 13, and was widely discussed. The central feature was to be the appointment of a Minister of Education (as in Ontario a member of the Government and necessarily a political partisan) in place of the existing non-partisan chief superintendent. The measure eventually passed the Assembly, but was thrown out in the Council. The following statement explains the political situation from two standpoints in December, 1898:

1. *The Liberal View.*—The Conservatives promised, on taking office in December, 1891, that there would be no new loans. They kept their promise by floating the Taillon loan, which replaced an indebtedness of \$3,860,000 by \$5,332,976. The bonds were sold at 77 without tender. This was in 1893. In 1894 there was another loan of \$2,920,000. In 1896 there was another loan of \$3,017,333. Mr. Marchand on taking office found that his predecessor's extravagance necessitated a further loan of \$700,000. The Conservatives on taking office promised there would be no new taxes. They imposed a tax on real estate transfers, licenses were imposed on manufacturers and traders, succession duties were levied, direct taxes were laid on professional men, and municipalities were subjected to a variety of new charges. In all, nearly two millions of new taxes were collected by them. The Conservatives promised on taking office that there would be no new railway subsidies. They kept this promise by withdrawing subsidies from new lines and giving them to old lines to the amount of \$963,000. By extending lapsed subsidies to the amount of \$1,486,507, they paid in five years for railway subsidies \$5,286,920. And in that time only 416 miles had been added to the system in Quebec. The Conservatives on taking office promised there would be no

more deficits. Their deficits for four years aggregated \$5,474,189, and this despite their special taxes. Mr. Marchand made only two promises: that he would do his utmost to keep the expenditure within the revenue, and that he would improve the educational system.

2. *The Conservative View.*—This party, under the leadership of the Hon. E. J. Flynn, late Premier, asserts, with truth, that the province was almost bankrupted by the admitted corruption and extravagance of the Mercier régime, and that the difficulties in the way of favorable loans, the necessity of borrowing money at any cost, and the equally imperative necessity of increasing taxation to recover the depleted treasury and put the province on its feet again, explain sufficiently the charges about loans, new taxes, and deficits. A period of hard times also added to their difficulties. Yet they came out of the troubles with improved finances and position generally. The railway subsidies were, in the main, enforced carrying out of obligations previously entered into by the Mercier Government.

Finances.—Apart from any other consideration, there can be no doubt of the improved financial position of the province during 1897-'98. The following statement as to the debt of Quebec, covering the period of attempted recuperation after Mercier's downfall in 1891, was made by Mr. Marchand in his budget speech on Dec. 14, 1897:

"In order to be able to fully understand the difficulty that we have to overcome, it is advisable in the first place, I consider, to define the actual position as clearly as possible. For that purpose I will take the liberty, without any recrimination against previous Administrations, of stating the facts exactly as they are. The constant increase of our public debt during the period of the last Legislature has been considerable, and here is a proof of it: The excess of the liabilities over the assets on the 30th of June, 1892, according to the budget speech of the 31st of January, 1893, was \$23,641,346.28. From this amount must be deducted the railway subsidies then lapsed under existing laws confirmed by the act 59 Victoria, chap. v, amounting to \$2,018,760.22; leaving as the total excess of liabilities over assets at that date the sum of \$21,622,577.06. On the other hand, the excess of liabilities over assets of on the 30th June, 1897, as shown in the detailed statement laid before this House, was \$25,491,658.16. Whence it results that during the past five years, instead of diminishing as was pretended, the debt has been increased by \$3,869,081.10. The increase has taken place notwithstanding the fact that the new taxes had added an average amount of nearly \$500,000 per annum to the revenues of the province during the same period, yielding for those five years a total increase in our revenue of \$2,262,452.55. On the other hand, the funded debt has during the same period grown to enormous proportions, both by the negotiation of permanent loans, destined to pay off temporary loans, railway subsidies, and various other floating debts, and by heavy discounts on some of the permanent loans effected for that object. On the 30th of June last, 1897, the outstanding debentures of the funded debt amounted to \$34,196,654.08; while on the 30th of June, 1892, according to the budget speech of the 31st of January, 1893, they amounted only to \$25,175,320.01, which leaves a sum of \$9,021,334.07 to represent the increase in our funded debt from the 30th of June, 1892."

The chief items of receipt and expenditure for 1896-'97 under his own Administration were given as follow: *Receipts*—Dominion of Canada, \$1,257,183.70; Crown lands, \$879,898.26; law stamps, \$177,426.80; registration stamps, \$63,875.90;

Building and Jury fund, \$27,565.83; law fees, \$9,654.38; municipalities for maintenance of prisoners, \$12,751.96; licenses, \$586,176.42; direct taxes on commercial corporations, \$134,404.03; tax on transfers of property, \$74,856.99; manufacturing and trading licenses, \$10,393.77; duties on successions, \$229,441.72; percentage on fees of public officers, \$6,671.83; legislation, \$8,391.39; lunatic asylums municipal contributions, \$7,703.59; "Quebec Official Gazette," \$21,637.58; casual revenue, \$7,570.62; civil service contributions for pensions, \$5,712.61; interest on loans and deposits, \$35,556.71; interest on price of the Q. M. O. and O. Railway, \$299,395.07; Marriage License fund deposit, St. Lawrence Fire Insurance Company, \$15,000; Aylmer Courthouse fund, \$17,976.14; temporary loans, \$700,000; proceeds loan, 1896, \$1,124,200; proceeds loan, 1897, \$1,224,000; proceeds of inscribed stock issued in conversion of debt, \$3,015,853.86; cash on hand at July 1 each year, \$784,799.49. *Expenditures*—Public debt, \$1,550,874.16; legislation, \$288,623.41; civil government, \$277,247.91; administration of justice, \$662,665.77; public instruction, \$410,060; agriculture, colonization, and immigration, 404,695.75; public works and buildings, ordinary \$165,783.76, extraordinary \$176,832.28; asylums and charities, \$358,616.77; miscellaneous (including payments by revenue officers out of collections), \$558,527.67; purchase of property, \$30,000; repayment railway guarantee deposits, \$381,187.62; trust funds, \$14,999.01; reimbursement Railway Subsidies fund—costs of collections and refunds, \$8,355.22; railway subsidies and Q. M. and O. Railway, \$1,346,475.01; redemption of debt—part of loan of 1896 and premium, \$3,015,853.86; add, payment of warrants outstanding at June 30, 1892, '93, '94, '95, '96, \$173,122.28; deduct, unpaid warrants outstanding at June 30, 1893, '94, '95, '96, '97, \$443,257.08.

The Upper House.—For many years there have been fitful agitations among Quebec Liberals for abolition of the appointive Legislative Council as being a fifth wheel to the Government coach. All measures or suggestions, however, have been blocked by the Council itself. Mr. Marchand's Government has taken up the matter, and every member duly appointed to a vacancy in the Council has to pledge himself to vote for its abolition when the time comes. On Dec. 11, 1898, Mr. McCorkill, a new appointee, announced this fact and declared the policy of the Government to be as stated. There is only one other provincial House of this nature now in Canada.

Dairy and Agriculture.—In 1897-'98 the Government expended upon agriculture, immigration, and colonization \$307,476, an increase of about \$20,000 over the preceding year. From sources of revenue connected with this department it received \$4,112,547, an increase of \$237,744. In some directions the agricultural and dairy development was not satisfactory. A decrease in cheese-producers' earnings is the dominant fact of the season now closed. Not counting the \$50,000 lost through a recent large failure in Montreal, factory men are \$2,000,000 out of pocket as a result of their labors since last spring. This is a decided reverse of the rule which has governed the business for the past ten years: for since 1888, while the average yearly price may have fluctuated, the aggregate return as a result of expansion in the output has recorded a steady increase from year to year. But this season not only have prices been 40 cents a box lower, but the exports show a decrease of 13½ per cent, compared with 1897. Lower prices were, of course, largely instrumental in restricting production of cheese, but another influence was also at work. In fact, the impression has prevailed for

some years that the expansion of cheese making in Canada should be moderated so as not to reach the danger point of overproduction. Accordingly, more attention has been devoted to butter-making, in which the margin for increase is considerably greater, and to this diversion of effort, coupled with the fact already mentioned, the record of the present season may be traced. It is not assumed from this that Great Britain has reached her purchasing limit for Canadian cheese, but rather that, as there is greater room for expansion in butter, it would be foolish to neglect the opportunity offered. From the middlemen or exporters' standpoint, also, the results of the season have been less satisfactory

than in 1897. The autumn output of cheese via Montreal (much of it from other provinces) was in 1898 as follows: Quantity, 1,900,000 boxes; cost price per box, \$6.35; spot price per box, \$6.60; cost value, \$12,065,000; spot value, \$12,540,000.

Prohibition.—This was a living issue in Quebec politics in 1898, owing to the Dominion plebiscite on the subject. Sir Henri Joly, a member of the Liberal Government at Ottawa from Quebec, opposed it, and Mr. S. A. Fisher, another member, supported it. But the province voted overwhelmingly against any such policy, the vote being 98,447 against 19,565 in favor. This practically balanced the favorable majorities in other provinces.

R

REFORMED CHURCH. 1. Reformed Church in America.

—The Committee on the State of Religion reported to the General Synod of the statistics of this Church as follows: Number of churches, 633; of ministers, 683; received on confession, 5,039; of members, 110,273, showing a gain of 2,213 over the previous year; of members of Sunday schools, 123,667, an increase of 3,000; amount of contributions for denominational objects, \$227,860, or \$22,971 more than in 1896; of contributions for other objects, \$103,857, an increase of \$2,952; of congregational expenditures, \$1,005,870, or \$32,445 less than in the previous year.

The number of Sunday schools was represented to be eight more than in the previous year. The total enrollment of members in them was 123,667. The number of catechumens was 37,441. The Sunday schools had contributed \$20,309 for foreign and domestic missions and education, indicating a gain of \$2,742 over the contributions of the previous year. The Christian Endeavor Societies had contributed to the same causes \$9,937, a gain of \$1,774.

The income of the Widows' fund, including the balance from the preceding year, had been \$10,796, and the expenditures \$8,809. Legacies amounting to \$15,169 had been added to the permanent fund. An increase was shown from every source of revenue except church offerings.

The report of the Permanent Commission on Systematic Beneficence showed that there had been a decided advance in systematic giving, resulting in an increase of \$16,500 in the offerings for foreign missions, and of \$10,000 in those for domestic missions. The committee was requested by the General Synod to correspond with delinquent churches with a view of engaging their co-operation in this work.

The number of Christian Endeavor Societies was given as 560, 156 of which were junior societies, with, in all, 30,000 members. The Missionary League had a membership of 20,000. These societies together had in the past year contributed \$3,100 to the domestic and foreign missions and to the women's boards.

The Board of Education had 102 students under its care. More churches than ever before had contributed to its support. The Synod decided to ask for \$15,000 from the classes for its work during the coming year. The three theological seminaries returned 78 students, 13 of whom were in India. Twenty-three students had been graduated.

The permanent fund of the Disabled Ministers' fund had been increased to \$63,293. The income of the fund had been \$6,243. The expenditures had exceeded the receipts by \$812. A special committee was appointed with reference to the increase of the resources of the fund, and was authorized, with the approval of the Board of Direction, to employ an

agent to solicit individual gifts and secure bequests for the fund.

The Board of Domestic Missions had received from all sources \$84,699, or \$12,482 more than during the preceding year. One fourth of the receipts had been from legacies and invested funds, while \$20,125, or nearly one third of the remaining \$63,484 contributed by the living membership of the Church, was received from the Women's Executive Committee. One fifth of the accessions by confession to the communion of the Church had been from the 222 churches aided by the board, and more than one seventh of the Sunday-school enrollment was in the same churches. The Synod decided that the sum of \$120,000 was the least amount that could adequately meet the needs of the board during the current fiscal year, and directed the apportionment of that amount among the several churches.

The contributions of the year for the Board of Foreign Missions had been \$124,301, an increase over the preceding year, but insufficient to meet the expenses in full, so that more debt was incurred. The missions in Arcot, India, North and South Japan, and Arabia had been re-enforced. The Synod of Amoy, China, representing the missions in China of this Church and of the Presbyterian Church in England, has a Widows and Orphans' fund established on a secure basis.

The receipts of the Woman's Board of Foreign Missions exceeded \$36,000, and were larger than those of any previous year. Missions in India, China, Japan, and Arabia were represented at the annual meeting of the board, May 10.

The General Synod met at Asbury Park, N. J., June 1. The Rev. Edward B. Coe, D. D., LL. D., was chosen president, and the Rev. S. M. Zwemer, missionary to Arabia, vice-president. The report of the Committee on the Amsterdam Correspondence (see the "Annual Cyclopædia" for 1897 and 1898) represented that the historiographer of the Synod, the Rev. Dr. E. T. Corwin, was successfully gathering exceedingly valuable historical material in the archives of the Reformed Church of the Netherlands, his researches continually revealing items of incalculable value and interest. He hoped to complete the work of gathering and transcribing the most important records by November, 1898. The funds as yet collected did not permit a further extension of the work. The resolutions of the Synod, acknowledging the courtesies shown by the classis of Amsterdam and other judicatories of the National Reformed Church of the Netherlands, called the attention of the churches, and especially of the older ones, "that formed the nuclei of the denomination in its present greatness," to the effort to secure this historical information, and requested them to make liberal donations toward it. A prop-

osition having been made to transfer to the council of Hope College, Michigan, for Western investments, certain funds held by the Board of Direction for the benefit of that institution, a committee appointed to inquire into the legality and expediency of such a transfer, and the power of the General Synod to make it, reported that by the terms of its charter, the Board of Direction was obliged to invest trust funds under its direction within the State of New York, and could not invest them otherwise, without rendering its members personally liable; the petition of Hope College could not therefore be granted. An amendment to the resolutions of the committee was offered authorizing the transfer to the council of Hope College of such funds for its endowment as were given directly to it, provided it could be made without bringing personal responsibility upon the members of the Board of Direction; and with this amendment the report of the committee was adopted. A special committee was appointed to report to the next meeting of the General Synod a summary of the history of particular synods. The publication of the Liturgy of the Church in the German language was authorized. The Theological Seminary at New Brunswick, N. J., was represented as being embarrassed by a shrinkage of interest on its invested funds, the income from which was now \$4,800 less than in 1882. Measures were taken to meet this difficulty. The Board of Foreign Missions was authorized to employ a field secretary to visit the churches in the interest of the cause. A delegate also was appointed to attend the General Assembly of the Italian Evangelical Church, which was appointed to meet in Florence, Italy, in October, 1898.

II. Reformed Church in the United States.

—The statistics of this Church for 1898 give it 1,029 ministers, 1,660 congregations, 242,299 members, with 11,677 confirmations during the year, 273 students for the ministry, 1,466 Sunday schools, with 24,770 teachers and 182,134 pupils. During the year covered by the reports \$202,726 was raised for benevolent purposes and \$1,093,791 for congregational expenses. These figures reveal an increase during the year of 7 congregations, 7,683 members, 835 teachers and 1,200 pupils in Sunday schools, and more than \$7,000 in contributions for congregational expenses, and a decrease of 200 confirmations and \$35,000 in benevolent contributions. A vote taken in the classes on a proposal for the establishment of a new foreign mission in China, in addition to the one already in operation in Japan, was adverse to that step.

III. Reformed Church in South Africa.—The Reformed Church in South Africa is divided into several branches, among which are the Dutch Reformed Church of Cape Colony, the Church of South Africa, the Presbyterian Church of Basutoland, the Dutch Reformed Church of Orange Free State, the Hall and Protestant Reformed Church of South Africa, all of which are connected with the Presbyterian and Reformed Alliance; the Reformed Church of Cape Colony, the Reformed Church under the Cross (at Strydenberg), and the Christian Reformed Church of South Africa.

The Reformed Church of Cape Colony numbers 13 churches. The General Synod, consisting of 6 preachers, 21 elders, and 2 deacons, met at Middelburg, Jan. 31 to Feb. 3, when a deputation from the Church under the Cross at Strydenberg, a secession from the Dutch Reformed Church of Cape Colony, applied for recognition. One point of difference exists between the two bodies, in that the Reformed Church sings psalms only, while the Church under the Cross permits hymns. The Synod resolved to co-operate with the Church under the Cross, and to aid it as needed. The matter of recognizing it as an

ecclesiastical body was referred to the Synod of the Reformed Church in South Africa considered as a representative body of the smaller Churches collectively.

IV. Evangelical Church of Italy.—The Evangelical Church of Italy was organized in 1870 by Father Alessandro Gavazzi, in Milan, under the name of the Free Church. It now returns, in its yearbook for 1897, 29 organized congregations, with mission work at 132 other places. Its clergy consists of 18 ordained pastors and 9 evangelists. It sustains 6 day or parochial schools, with 29 teachers and 922 pupils; 8 evening schools, with 18 teachers and 397 pupils; and 27 Sunday schools, with 92 teachers and 1,349 pupils. Under its system of Bible colportage 1,137 Bibles and 1,613 New Testaments were distributed in 1896. The theological seminary which was sustained at Rome for several years was discontinued in 1895. Since then courses of theological lectures have been delivered in Florence by one German and two Italian theologians.

REFRIGERATING AND ICE MAKING.

The production of artificial cold is an industry that has had a steady growth during the past generation. The earlier machines were not economical, but experience has developed methods that compete with the storing of natural ice, so that refrigerating plants have become common, not alone in cold-storage warehouses, but in large hotels, manufacturing establishments, etc. In several cities of the United States, notably St. Louis and Denver, plants have been established for the general sale and distribution of cold, through pipes, to the premises of subscribers, and the service is said to be both satisfactory to the customer and profitable to the investors. The ammonia-expansion system is most commonly used, and may be employed for either ice making or refrigerating. The delivery of the cold direct into the premises where the temperature is to be reduced is about 40 per cent. cheaper than the production of the same low temperature by the making of artificial ice and storing it in the cold room. The principle upon which the manufacture is based is that a gas when compressed gathers heat enormously, and if robbed of this heat and allowed to expand at a future time it seeks to regain its lost heat by withdrawing heat from its surroundings. Almost any gas can be used for this purpose, but ammonia gas is commonly preferred, because it can be liquefied with comparatively little pressure. Anhydrous ammonia is employed, being obtained by distillation of common ammonia to remove the water. This is compressed by a combined steam pump and compressor, much as air is compressed. The resulting liquefaction induces heat, which is economized by circulating cooling water about the vessel or pipes containing the liquefied ammonia. Thus the ammonia is cooled and the heat largely transferred to the water, which is then pumped back to the boiler that supplies the steam pump, thus economizing fuel. The liquid ammonia is then carried in a pipe to the place to be cooled, and being there admitted by a valve in a small stream to expansion coils that afford plenty of room for its evaporation, it begins to return to the gaseous form, and to draw heat from its surroundings, which gradually reduces the temperature. This may be regulated by the amount of ammonia evaporated in the coils. If the consumer wishes to make ice, he has only to place proper cans of water in contact with the expansion coils, and in due time ice is formed.

For refrigerating, the brine system is frequently preferred to the direct-expansion system. A strong brine made with common salt will bear a very low temperature without freezing. The plan is there-

fore to place tanks of brine in contact with the evaporating coils, and to circulate the brine by means of a pump throughout the premises to be cooled. This system has the advantages of requiring less ammonia and of affording no chance for accidental leakage of the ammonia in the cold rooms, such leakage being liable to inflict severe damage on goods. In a general distribution system, as in Denver, the direct-expansion method is employed. A large compressor pump and steam engine, usually combined in one machine, are employed at the central plant to compress the ammonia. An ammonia condenser with liquefying coils is also provided, besides minor machinery. Three sets of pipes are laid through the streets, known respectively as the liquid line, vapor line, and vacuum line. The liquefied and cooled ammonia is sent out in the vapor line and connected with the expansion coils that are placed on the premises of customers, enabling them to turn on the cold by a simple twirl of a valve. After the ammonia in the various coils has fully evaporated and expanded, doing all the cooling work of which it is capable, it is led back to the vapor line, and assisted back to the central plant, by means of a suction pump. The vacuum line is connected at regular intervals with both the other lines by means of valves that are normally closed, but which render it possible, in case of accidents or difficulty in either of the other lines, to alter the valves so as to cause one line to flow through a portion of the vacuum line, permitting the corresponding section of the defective line to be emptied and examined for repairs. The vacuum line, as its name implies, is ordinarily pumped so as to be comparatively empty, and thus a section of either of the other lines is readily turned into the vacuum line, the suction being so complete that not even fumes are left in the vacated section of the emptied line to annoy the workmen who make the repairs. Pipes for these lines are laid with extreme care, in order to avoid disturbance by frost, etc., resulting in distortion of the joints and consequent leakage. The customary plan is to provide a complete bed of cement and to cut the pipe in longitudinal half sections, so that the lower halves may be laid first, and the joints thoroughly protected against leaks. The upper halves are then attached with cement joints, and the whole completely surrounded with cement. At the completion of each section, where the shut-off and transfer valves are placed, are manholes to facilitate their operation. By such means as these the loss from leakage is reduced to a minimum, which is quite important, as the leakage, besides being a direct loss, is seriously objectionable to property owners on whose premises it occurs or to the general public in the vicinity where the loss takes place. It will be apparent that this system obviates any loss of heat by transfer through the line, as the liquefied ammonia sent out does not begin to withdraw heat from its surroundings until it is afforded a chance for expansion, which is not given until it is actually in the coils of the customer.

For making ice by the ammonia system, distillers, purifiers, and filters are employed to cleanse the water, which is let into cans of 100 to 300 pounds capacity. With one of the larger outfits it is possible to make 150 tons of ice every twenty-four hours after ice making begins. Sometimes the ice is made in plate form, being cast in tanks that yield a cake about 8 by 16 feet and 12 to 16 inches thick. Artificial ice thus made is produced so cheaply and conveniently, and has such an advantage in the way of purity, that it has gained a market in many cities within the ice-gathering belt, and ice making and refrigerating machinery is every year being introduced a little farther north.

RESERVATIONS, INDIAN. The area of land that is reserved from the national domain for occupation by Indian tribes aggregates 84,571,459 acres, or 132,143 square miles—almost equal to the area of Ohio, Indiana, and Illinois combined. The reservations—which are in California, Colorado, Idaho, Kansas, Michigan, Minnesota, Montana, Nebraska, Nevada, New York, North Carolina, North Dakota, Oregon, South Dakota, Utah, Washington, Wisconsin, and Wyoming, and Arizona, New Mexico, Indian, and Oklahoma Territories—number 188, the 22 small reserves of the Mission Indians in California and the 19 Pueblo reserves in New Mexico being counted as one each. Of these reservations no two are exactly similar, and no two tribes present the same condition. Some of the Indians live a mere animal life, while others are largely civilized and have become absorbed into our national life. The great majority receive nothing directly from the Government in the way of subsistence or support, while certain tribes—as the Sioux, Cheyennes, Arapahoes, and Apaches—depend largely upon Government rations. The established policy of the Government toward the Indians now aims at the destruction of the reservation system, together with that of tribal organization, the allotment of land in severalty to the Indians as they shall become sufficiently enlightened to accept it, and their incorporation into the nation as citizens. The initiation of this policy was the act of March 3, 1871, forbidding the future recognition of Indian tribes or nations as independent powers, with which treaties might be entered into, substituting agreements merely, subject to ratification by Congress. It was radically fixed, however, by the act of Feb. 8, 1887, known as the Dawes bill, or "land-in-severalty law," applicable to all reservations except those of the Five Civilized Tribes, and three others in Indian Territory, those in the State of New York, and one in Nebraska. Prior to the passage of this act allotment of land in severalty was stipulated for in treaties with certain Indian tribes, and, by acts of Congress, allotments have been made to specified tribes since 1885. By this act the President is authorized to have the lands of Indian reservations surveyed and allotted in severalty, and in 1890 the amount was fixed at 80 acres to each Indian, without regard to sex or age. Patents to the individual holdings contain a restriction against alienation for twenty-five or more years; and the Indian receiving land in fee is declared an American citizen, and is brought under the laws of the State or Territory in which he resides. Surplus lands remaining after allotment will be purchased by the United States and opened to settlement. In special instances this is done in advance. While many of the tribes and fragments of tribes on reservations are in a condition to accept lands in severalty, to others the application of the law would be preposterous.

The policy of seclusion having thus been abandoned, the landed estate of the Indians has suffered somewhat rapid reduction. In 1890, after the opening of Oklahoma, it aggregated 116,000,000 acres, or 181,250 square miles. But during that year about 13,000,000 acres were ceded to the United States—9,000,000 by the Sioux in North and South Dakota and 4,000,000 by the Chippewas in Minnesota. In 1891 agreements with the Indians, ratified by acts of Congress, restored 8,164,765 acres to the public domain, and in September, 1893, the Cherokee Outlet, or "Strip," of 6,361,135 acres, was opened to settlement under the homestead laws and to disposition as school lands.

The first effect of the general allotment act of Feb. 8, 1887, was the immediate admission to full citizenship of 10,122 Indians to whom allotments

had been made previously under special laws and treaties, and the admission to citizenship of all Indians who had voluntarily taken up their residence apart from their tribes and adopted the habits of civilized life. By special laws and treaties 3,072 Indians of various tribes had previously become citizens. Under the allotment act 22,639 allotments of land have been patented and delivered to Indians on reservations, and under the same act allotments are also made to nonreservation Indians. During 1896 2,364 patents for allotments were delivered to Indians on reservations.

Since May 14, 1855, reservations for Indians have been made by executive order (with or without the authority of Congress) in addition to treaty or agreement; and when they are no longer required, they are restored to the public domain by order of the President and disposed of like other public lands. The largest area of Indian land lies within Indian and Arizona Territories, South Dakota, Montana, Oklahoma, Washington, Utah, and North Dakota.

The total Indian population of the United States, exclusive of Alaska, was shown by a census of the tribes taken by the Indian Office in 1895 to be 248,340, or, exclusive of the Five Civilized Tribes, 182,370. Of this number, 81,202 wear citizen's dress wholly and 81,701 in part; those who can read number 33,115, and 41,242 can use English enough for ordinary purposes. During the year 23,462 dwelling houses were occupied by Indians and 1,944 were built by Indians, and 269 church buildings were owned by Indians. The births during the year were placed at 3,502, and the deaths at 2,974, only partial reports having been made of either; 734 formal marriages took place and 48 divorces were granted. Sixteen suicides occurred. Twenty-three Indians were killed by Indians, and 5 by whites. Four whites were killed by Indians. By the court of Indian offenses, 762 Indian criminals were punished; by civil courts, 218; and by other methods, 371; while 400 whisky-sellers were prosecuted.

History.—Indian reservations within the United States have their origin in the right of Indian occupancy of lands, acknowledged by Great Britain and subsequently by the United States, which requires, preliminary to survey or disposition of public lands, the extinguishment of the Indian title and claims. A uniform course has been pursued in making such extinguishment by purchase only. In but one instance has the right of conquest been exercised—that of the Sioux Indians in Minnesota, after the outbreak of 1862; and in this case even the Indians were provided with another reservation, and were paid the net proceeds of sales of their lands. Early reservations were made by treaty only. The Plymouth Colony, in 1640, set aside from a large tract purchased from surrounding tribes a home for the grantees and their children forever, and other instances of the sort abound. Prior to 1776 the colonies conducted their Indian relations individually, negotiating for cessions of land and extinguishing the Indian title; but by the Articles of Confederation "the sole and exclusive right and power of regulating the trade and managing all affairs with the Indians" was transferred to the Federal Government, which at once proceeded to put in force principles defined by George III in a proclamation of Oct. 7, 1763, viz., the right to expel intruders upon Indian lands and the right of the Government solely to purchase Indian lands.

The first treaty made with Indians by the United States as a nation was that of 1778 with the Delawares, looking to assistance from them during the War of Independence and to the organization of a fourteenth (Indian) State, with representation in Congress. In 1783 commissioners were appointed

to make treaties with all the Indian nations (then recognized as such) in due convention with all the tribes; but as this proved impossible, treaties were entered into with these severally—a system continued until 1871, to which date more than 360 treaties were made. From that time the Indian has been considered the nation's ward.

The majority of earlier treaties looked mainly to the acquisition of land, and it is claimed that in the first twenty-five years of national existence the ratification of 38 treaties secured 200,000,000 acres. Encroachments of whites upon lands north of the Ohio river, claimed by the Indians as the boundary between their possessions and those of the whites, and the rejection by United States commissioners of the remonstrance of the confederated Indian nations in council at the foot of the Maumee rapids, Aug. 13, 1793, led to the bloody wars that were closed by the treaty of Greenville, Aug. 3, 1795, and to the subsequent outbreak of Tecumseh.

Conflict between State and Federal authority in the control of Indians was obviated to all practical effect by cessions of Western lands made by the thirteen States, and by the proposed removal of Indians within State boundaries thither, stipulated for in particular by Georgia in 1802. The ordinance of 1787 for the government of the Northwest Territory provided for the maintenance of good faith toward the Indians, secured to them their property and lands, and protected them against unjust wars; and the provision or its principle was repeated or embodied in acts organizing the majority of the Territories subsequently erected within the limits of the original cessions from the colonies. The States containing such provisions in their incipient organization were Indiana, Michigan, Illinois, Mississippi, Alabama, Wisconsin, Iowa, Minnesota, Oregon, Kansas, Nebraska, Colorado, Dakota, Nevada, Idaho, Montana, and Wyoming.

As regards the Indian title to domain afterward acquired by the United States by the treaty of purchase of Louisiana from France, April 30, 1803, the United States pledged itself to execute and respect all existing treaties with Indian tribes until by mutual consent "other suitable articles shall have been agreed upon"; but in the cessions from Mexico no such stipulation was made, that republic holding no treaty relations with Indian tribes, nor ever having recognized the Indian right of occupancy. The States and Territories covered by the treaty of Guadalupe Hidalgo are California, Nevada, Arizona, New Mexico, and Utah. Within these limits reservations have been set aside for Indians, but the only tribes with whom treaties have been made for cessions of lands are the Navajos, Comanches, and Kiowas; and in California, in particular, no compensation has ever been made to Indians for lands taken forcibly from them. The long-disputed tenure of the Mission Indians of that State was established by a decision of the Supreme Court of California, Jan. 31, 1868, though their claims, conflicting with those of settlers, are still the subject of legislation by Congress.

Stringent laws regarding trade and intercourse enacted by Congress in 1790, 1793, and 1796 initiated the policy of seclusion, with provisions for attempts at civilization of the Indian by the Government, more fully defined by the act of June 30, 1834, which was framed to meet the exigencies arising after the removal of the Indians east of the Mississippi to lands westward of that stream.

Such removal, as has been said, was early contemplated, and provision was made for it by act of Congress, March 26, 1805. A grant of lands west of the Mississippi was also made to the Choctaws for a home in 1820. But difficulties, particularly in Georgia with the Cherokees in their relation of

a tribal government to State authority (a controversy decided in their favor by the Supreme Court of the United States), led to the execution of the project, the first definite plan of which was submitted to Congress Jan. 27, 1825, and was that of the Secretary of War, John C. Calhoun, looking to the establishment of two Indian reservations—one in the Northwest for Indians of the Algonquin and Iroquois tribes, and a second for Appalachians in the Southwest. This was followed by a report of Hon. James Barbour, Secretary of War, to the Indian Committee of the House, Feb. 3, 1826; and the "Indian Country," acquired by treaty with Kansas Osage Indians several years previously, was defined by act of May 30, 1830. To 1834 17 tribes of Indians, numbering 77,497, were removed to this country, nation, or territory—as it was successively termed—and a few thousands were afterward added in completion of an experiment that proved "as costly to national honor and treasure as to the life and happiness of its victims."

From 1834 Indians have existed in the tribal relation and possessed of specific tracts of lands in but 3 of the 13 original States—Massachusetts, North Carolina, and New York—the citizens of the last-named State having petitioned against the removal of the remnant of the Six Nations within its borders. The example of the New York Indians is cited as proof of the capacity of Indians for civilization on small reservations and surrounded by whites.

Lands patented to the emigrated tribes were by treaty assured to them forever; but the tide of emigration setting toward the West on the annexation of Texas and the acquisition of Western territory led to the establishment in 1854 of the Territories of Kansas and Nebraska by consent of various tribes, native or removed thither, who ceded their lands in trust or unconditionally with the exception of 1,300,000 acres, reserved to themselves as homes. But the stipulations were not respected by the United States. The executive office of Kansas was established within the Shawnee country, the Legislature meeting at that nation's mission, and intrusions of settlers (notably in the case of the site of the present city of Leavenworth) led to the removal after 1866 of all adjacent tribes within the boundaries of the lands patented to the Cherokee, Choctaw, and Creek nations respectively—Dec. 31, 1838, March 23, 1842, and Aug. 11, 1852. These lands included what was known as Indian Territory prior to the opening of Oklahoma (with others in Kansas afterward relinquished), in which had been included the Chickasaw nation, confederated with the Choctaws in 1837, and the Seminoles, becoming part of the Creeks after the Florida war. The reservation occupied by the Seminoles from about 1842 was changed to its present location, in 1866, and the five constitute what are known as the "Civilized Tribes." Under the treaties of 1866, removals of other tribes to the Indian Territory have taken place at intervals (until Feb. 17, 1879, by executive order merely, but after that date by authority of Congress), and the advocates of seclusion retained the hope of a final concentration therein of all the Indian tribes of the Union and the formation of the ideal Indian State. The question was set at rest by the admission of whites into the interior in 1889, and the erection, May 2, 1890, of the Territory of Oklahoma, severed its entirety.

The plan of a single large reservation in the Northwest for tribes of that region was prior to 1887 also often revived. Commissioners in California, Oregon, and Washington secured reservations to Indians, but they were invaded with impunity, the peaceful Indian population of the coast

having suffered and continuing to suffer outrage which led at last to warfare. Treaties entered into at Fort Laramie in 1851 with the wild Indians of the plains and mountains (across which the United States army protected emigrant trains) established boundaries and assigned reservations, which, especially in Colorado, the Government proved unable to protect; and wars, often wantonly provoked by the whites with hostile Sioux, Cheyennes, and Arapahoes, and other tribes (in Arizona and New Mexico amounting to wars of extermination), were carried on from 1854 till the appointment of a peace commission in 1867-'68, with an appropriation of \$500,000 to carry out its intent. Wars since that date have been principally with the Apache, Southern Cheyenne, and Arapaho, Kiowa, Comanche, Piegan, Northern Cheyenne, Nez Percé, Modoc, and Sioux Indians, to the outbreak of the last nation in 1890-'91; the origin or result of all being the reduction of territory that had been guaranteed to the tribes.

In 1875 the benefits of the homestead act of May 30, 1862, were extended to Indians, with provision against alienation of patents for a period of five years—by act of July 4, 1884, changed to twenty-five years. The renunciation of tribal relations was made necessary for homesteading.

Strenuous objection to the allotment act of 1887 was made by the Five Civilized Tribes in the interest of the Indians, although they are by treaty rights themselves excepted from its provisions. But it has been deemed a necessity by the Government to imbue the Indian with an idea of property, and to accustom him to self-support.

For the question that has been raised whether the number of Indians in the United States has decreased since 1882, or whether it is not possibly as large as when the first settlements were made by Europeans on the North American Continent, it seems to be shown by figures that the race is decreasing. The largest nation is that of the Sioux, in the two Dakotas. The enumeration of all the tribes is practically impossible.

The following is the distribution of Indian area and population by the report of the Commissioner of Indian Affairs for 1895:

Arizona.—Ten reservations, under five agencies, with an area of 22,029 square miles. Population, 37,723, of which 215 are not under an agent. The largest tribe is that of the Navajos, numbering 20,500, who occupy 12,029 square miles, partly in this Territory and partly in New Mexico and Utah. The Navajos are a peculiar tribe, differing from other Indians in that they are almost exclusively engaged in pastoral pursuits, owning vast flocks of inferior sheep and goats and great herds of ponies, but few cattle. They are peaceable, self-supporting, and independent, and are almost the only Indians who ask nothing from the Government. Previously to 1893 they were extremely conservative and distrustful of any attempts to educate their children, resisting all appeals to allow them to be sent away to school, while it was impossible to plant schools in their midst. Fifteen of their representative men were taken to the Chicago Exposition in 1893, and returned amazed at their glimpse of civilization. This created an intense enthusiasm and desire for education, so that parents brought their children voluntarily to the only school on the reservation, which was not capable of receiving more than 150 pupils, and the attendance at which had previously been 15. Many were refused admission for want of accommodations, and some went away crying. The other tribes in the Territory are principally Apaches of various bands, Moquis, Papagos, Pimas, Maricopas, Mohaves, Chimehuevis, Hualapais, and Suppais.

California.—Five reservations, under four agencies; area, 676½ square miles. The population numbers 12,574, of whom 6,995 are not under an agent. The Mission Indians are the most numerous, and other tribes are Hoopas, Klamaths, Concows, Utes, and Wyalacies, Little Lakes and Redwoods, etc.

Colorado.—There is but one reservation in this State, that of the Ute Indians, who reluctantly agreed to the relinquishment of their lands and to removal to Utah as long ago as the autumn of 1888. The Commissioner of Indian Affairs protested against the ratification of this agreement, and the Utes are still in possession of their lands. The area of the reservation is 1,710 square miles. The tribe numbers 1,142.

Idaho.—Four reservations, under as many agencies, having an area of 2,963½ square miles. The population—of Shoshones, Bannocks, Sheepeaters, and Nez Percés, with 533 Pend d'Oreilles and Kootenais not under an agent—numbers 4,198.

Indian Territory.—Twelve reservations, under two agencies, with an area of 31,062 square miles. The Union agency, under which fall the Five Civilized Tribes, is not an agency in the common acceptance of the term. These tribes possess governments with constitutions similar to that of the United States and based thereon, divided into executive, judicial, and legislative departments, though the title of the land is vested in the nation, and each individual occupies as much as he desires. In some instances farms of 4,000 to 8,000 acres are held by single Indians, who employ others as assistants. The total population of Indian Territory is 67,358, of whom 65,970 belong to the Five Civilized Tribes: the Cherokees numbering 25,388; the Chickasaws, 6,000; the Choctaws, 17,819; the Creeks, 13,863; and the Seminoles, 2,900. The Indians under the Quapaw agency are, respectively, Peorias, Ottawas, Quapaws, Modocs, Senecas, Eastern Shawnees, Miamis, and Wyandottes, and number in all 1,388. By section 16 of the act of March 3, 1893, the President was authorized to appoint three commissioners to enter into negotiations with the Five Civilized Tribes for extinguishment of tribal titles to lands in Indian Territory, looking to the ultimate creation of a State or States of the Union which shall embrace these lands. The three commissioners appointed by the President and confirmed by the Senate were Henry L. Dawes, of Massachusetts, Meredith H. Kidd, of Indiana, and Archibald S. McKennon, of Arkansas, who went to Indian Territory at the close of the year 1893, but have as yet made no report.

Iowa.—One reservation, owned in fee by purchase, has an area of 4½ square miles. The population—of 398 Pottawatomies, Sacs and Foxes of the Mississippi, and Winnebagoes—is under an agent.

Kansas.—Five reservations under one agency. The area is 51 square miles, and the population—of Chippewas and Munsees, Sacs and Foxes of the Missouri, Iowas, Kickapoos, and Prairie Band of Pottawatomies—numbers 1,124.

Michigan.—Three reservations under one agency, with an area of 9½ square miles. The population—of Chippewas, Pottawatomies, and Ottawas—are all citizens of the United States, voters, and eligible to office. They are not known or recognized by tribal relations either by State laws or treaties, and in every respect, so far as the rights of citizenship are concerned, stand on an equality with the whites.

Minnesota.—Ten reservations under two agencies. The area is 3,505½ square miles. The population, of Chippewas only, is 7,280.

Montana.—Six reservations under as many agencies. The total area is 14,660 square miles. The population of 10,783 consists principally of Black-

feet, Bloods and Piegiangs, Crows, Kootenais (from Idaho), Flatheads, Gros Ventres, Assiniboines, Yanktonnais, and 1,333 Northern Cheyennes.

Nebraska.—Five reservations under three agencies. The total area is 196½ square miles. The population—of Sioux, Winnebagoes, Omahas, and Poncas—numbers 3,889.

Nevada.—Four reservations under two agencies. The total area is 1,490½ square miles. The population—of Pah-Utes, Pi-Utes, and Shoshones—numbers 8,537.

New Mexico.—Four reservations (counting the 19 small Pueblo reserves as one) under two agencies. The total area is 2,808 square miles. The population—of Mescalero and Jicarilla Apaches and Pueblos—numbers 9,834.

New York.—Eight reservations under one agency. The area is 137 square miles. The population—of Senecas, Cayugas, Onondagas, Oneidas, Tuscaroras, and St. Regis Indians—numbers 5,135.

North Carolina.—One reservation, of 102 square miles, owned by purchase. The population—of Eastern Cherokees—numbers 2,898, and is under an agency.

North Dakota.—Four reservations under three agencies. The total area is 5,957½ square miles. The population—chiefly of Sioux, Chippewas, Arickarees, Gros Ventres, Mandans, Yanktonnais, Hunkpapas, and Blackfeet—numbers 8,134.

Oklahoma.—Thirteen reservations under five agencies, have a total area of 10,859 square miles. The population, of 12,570, consists of 23 tribes, the largest of which are the Cheyennes, Osages, Comanches, Kiowas, and Arapahoes.

Oregon.—Five reservations under four agencies. The total area is 2,540½ square miles. The population, made up of several small bands, numbers 4,565, and of these 600, under no agent, roam the country along Columbia river.

South Dakota.—Seven reservations under six agencies. The total area is 15,371 square miles. The population, of Sioux in various bands and Cheyennes, is 18,861.

Utah.—Two reservations under one agency, with an area of 6,207 square miles. The population, of Utes, numbers 2,160, of whom 390 are not under an agent.

Washington.—Twenty reservations, under five agencies, have an area of 6,323 square miles. The population, made up of small tribes, as in Oregon, numbers 9,334, of whom 200 are not under an agent.

Wisconsin.—Seven reservations, under two agencies, have an area of 651½ square miles. The population, of Chippewas, Oneidas (from New York), Menomenees, Stockbridges and Munsees, Winnebagoes, and Pottawatomies, numbers 9,069, of whom 1,210 are not under an agent.

Wyoming.—One reservation under an agency, with an area of 2,828 square miles. The population, of Northern Arapahoes and Shoshones, numbers 1,748.

In Florida there are 565 Seminole Indians; in Indiana, 318 Miamis; in Maine, 410 Old Town Indians; and in Texas, 290 Alabamas, Cushattas, and Muskogees.

Industries.—As regards the character of the lands included in these reservations, exclusive of Indian and Oklahoma Territories, the greater part is worthless for farming without irrigation, and accordingly appropriations have been made by Congress for irrigation on the reservations. For this purpose \$30,000 were expended during the fiscal year 1896. The law of March 3, 1875, requires that able-bodied Indians between the ages of eighteen and forty-five must labor in order to be entitled to rations, and they yearly receive instruction in farm-

ing. If an Indian will go upon an allotment and work to improve it, the Government assists him in building a house, gives him a team, agricultural implements, wire for fencing and grain for seedling, and the supervision and counsel of a practical farmer to aid him in the cultivation of his crops. For the pay of such farmers \$70,000 were expended in 1895. Field matrons are also employed, whose duties are to instruct Indian women in matters of the household, to assist and encourage them in bettering their homes and taking proper care of their children, and to incite among Indians generally aspirations for improvement in their life—morally, intellectually, socially, and religiously. The appropriation for field matrons has increased from \$5,000 in 1892 to \$15,000 in 1896. Exclusive of the Five Civilized Tribes, Indians on reservations in 1895 cultivated 369,974 acres of land, 37,899 acres were broken during the year, and 1,168,839 acres were under fence, while 561,681 rods of fence were built during the year and 8,366 families were actually living upon and cultivating land in severalty. The crops raised were 1,016,754 bushels of wheat, 875,349 bushels of oats and barley, 2,266,944 bushels of corn, 476,272 bushels of vegetables, 10,410 bushels of flax, and 216,096 tons of hay; 100,082 pounds of butter were made, 5,953,000 feet of lumber were sawed, and 48,931,000 feet of timber marketed, while 80,568 cords of wood were cut. The value of products of Indian labor sold by the Indians to the Government during the year was \$371,324, and the amount of those sold to other customers \$581,006. Indians with their own teams transported 23,061,000 pounds of freight, the amount earned by such freighting being \$103,725. As far as practicable, remunerative work is given to Indians by the Government, and, in addition to moneys paid them for miscellaneous work and for supplies raised by themselves, \$400,000 was paid in salaries to Indian employees in 1896. In addition to hauling goods and the sale of grain and other farm produce raised by themselves (one enterprising Indian having recently obtained the contract to furnish corn for two Government schools), other sources for self-support among the Indians are the cutting of hay, working on irrigating ditches, raising of beef cattle, logging, cutting of cord wood, digging of ginseng root, sheep shearing, laboring as ranchmen, carrying hod, labor in construction of railroads in Arizona, the sale of fish, berries, wild rice, maple sugar, and (lately in Wisconsin) frogs' legs. Too considerable, as well as too easy, a source of revenue is the leasing of land. On several reservations the making of "real" pillow lace has been taught to Indian women, who have shown themselves to be apt learners, dexterous workers, and tasteful designers. The income of the Indians from their native manufactures, such as beadwork, gloves, moccasins, pottery, pipes, baskets, and blankets, is still considerable, but is probably diminishing. A unique industry recently introduced on the Flathead reservation in Montana was that of the herding of buffaloes with cattle, by which the fur or hair of the cattle is improved, being much longer and much finer in texture than that of the pure buffaloes. A herd of 150 buffaloes is now ranging upon the reservation, and the owner derives a comfortable income from the sale of the cattle, which are shipped to Chicago. As far as possible the outing system is being extended in Indian schools, by which the pupils are enabled to earn money on neighboring farms during vacation. Several Indians are traders, and Indians are frequently employed as clerks in stores. A good many mechanics support themselves at their trades. There are a few physicians, trained nurses, clergymen, and engineers. The rights of

Indians on their reservations are "those only of a tenant for life on the lands of a remainderman, and no more."

Leases.—The leasing of Indian lands, allotted and unallotted, for farming, grazing, and mining is permissible, subject to the approval of the Secretary of the Interior, but the indiscriminate leasing of allotments is not allowed. No allottee is allowed to lease his lands unless by age, disability, or inability he can not personally improve it. The period of leases for farming and grazing has been extended from three to five years, and the term for mining or business is placed at ten years. Originally, leases of lands by Indians were permitted by the Interior Department; subsequently they were allowed only under authority of Congress, and cattle were ordered from the Cherokee Strip by proclamation of President Harrison, Feb. 17, 1890, the Five Civilized Tribes having, in the opinion of the Attorney-General, no right to make contracts for leasing these lands. The present authority for leasing Indian lands is the act of Feb. 28, 1891, amended by the act of Aug. 15, 1894. The sale of dead and fallen timber is allowed to Indians on reservations, but the Five Civilized Tribes and holders of allotments may cut and sell timber at will.

Railroads are run through Indian lands only after conference and agreement (sanctioned by Congress) and compensation paid, the sum usually being deposited in the United States Treasury as a trust fund for the benefit of the Indians.

Legal Status.—As regards the legal status of Indians on reservations prior to March 3, 1885, offenses of Indians against Indians were left to tribal jurisdiction. From that date specified crimes have been punished by Federal authority, and the provisions of the allotment act look to the extension of the law over the race. On March 1, 1889, a United States court was established in Indian Territory, having civil as well as criminal jurisdiction, the authority of which was enlarged in 1890 and made also to include extradition of criminals. For suppression of barbarous and demoralizing practices, courts of Indian offenses were established by the Indian Office in 1882, each court to consist of three judges appointed by that office for one year and subject to removal by the commissioner. These courts were afterward recognized by Congress, and appropriations are made for their maintenance. They are now known simply as Indian courts. Offenses cognizable and punishable by these courts are "sun," "scalp," and "war" dances, plural marriages, practices of medicine men, sales of women, stealing and abuse of property, and sale and use of liquor. Indian police have been organized since May 27, 1878, and the cost in 1895 was \$125,000. The force is regarded by the Indian Office as an indispensable one in the maintenance of order and suppression of crime.

Trade with Indians on reservations, restricted since 1786 to licensed traders, is losing its distinctive characteristics, and among the civilized tribes restriction and supervision of trade by the Indian Office has long been merely nominal. The most important question under this head is therefore that of the sale of intoxicating liquors. The act of Feb. 13, 1862, modified in 1873, but restored to its original force Feb. 27, 1877, made it a crime, punishable by fine or imprisonment, to sell liquor to Indians under care of an agent, on or off reservations; and on Feb. 14, 1890, the British Government signified a desire for the extension of the law to embrace Canadian Indians temporarily within the United States. Since the opening of Oklahoma especial difficulty has been experienced in preventing sale of liquor on adjacent reservations, and large quantities have been destroyed by the Indian police.

Education.—The appropriation for Indian education in 1896 was \$2,056,515, increased to \$2,517,265 for 1897.* Of the total Indian population, exclusive of the Five Civilized Tribes (who, like the New York Indians, support their own schools), 38,000 were children of school age, and of this number 23,393 were enrolled in 296 Indian schools, of which 223 were under the immediate supervision of the Indian Office. Twenty-two nonreservation boarding schools had an enrollment of 5,085, and an average attendance of 4,461 pupils; 77 Government boarding schools on the various reservations had an enrollment of 8,489 pupils, with an average attendance of 7,056; and 124 day schools, in the heart of the Indian country (all except 8 being on reservations), had a capacity of 4,424 pupils. These 223 schools show an increase of 1,205 in enrollment over 1895, and of 1,561 in average attendance. A few tribes reported the enrollment of the entire available school population, and in several schools the average attendance exceeded 95 per cent. of the enrollment. The total number of school employees in 1896 was 1,364, and the total of salaries paid to such employees was \$998,411. The total number of children taught in Government schools was 17,789; those taught in contract schools numbered 4,439; and those taught in all other schools, 1,343.

Appropriations.—The Indian appropriation act for the fiscal year 1896 declared it to be the settled policy of the Government to make no appropriation whatever for education in any sectarian school.

Of the amounts expended yearly for the subsistence of the Indians, the greater part is in fulfillment of treaty stipulations, the respective amounts due the tribes being either specified in the treaties or estimated by the Interior Department, while only a portion is gratuitous. To meet treaty obligations during 1896 \$2,982,147 were appropriated, and \$695,625 for miscellaneous support and gratuities. The total appropriation for the Indian service for the fiscal year 1896 was \$8,763,751.24, while that for 1897 was \$7,189,496.79. The total of the present liabilities of the United States to Indian tribes in 1895 showed \$1,239,160 as the annual amount necessary to meet stipulations indefinite as to time now allowed, but liable to be discontinued; \$3,573,000 as the aggregate of future appropriations that will be required during a limited number of years to pay limited annuities incidentally necessary to effect payment; \$691,770.87 as the amount of annual liabilities of a permanent character, and \$12,474,417.74 as the amount held in trust by the United States on which 5 per cent. is annually paid, and amounts that invested at 5 per cent. produce permanent annuities.

In addition to amounts annually appropriated for the Indian service, the Government holds in trust funds belonging to various tribes, and the annual interest accruing therefrom is paid over to those tribes or is expended for their benefit. The interest on the principal of the trust funds belonging to the Five Civilized Tribes is placed semiannually with the United States Assistant Treasurer at St. Louis, Mo., to the credit of the treasurer of each nation, respectively, and its expenditure is under the control of the nation and its council. The total amount of 4- and 5-per-cent. funds thus held by the Government in lieu of investment aggregated \$33,196,476.13 in 1895, the annual interest collected on it being \$1,647,516.52. The trust funds owned by the Five Civilized Tribes amounted to \$9,113,386.45. The largest trust fund owned by any single tribe is that of the Osages, amounting to \$8,245,251. It arises from the sale of lands. In proportion to population, the Osages are the richest people in the world.

Claims.—The act of March 3, 1891, provided for the final adjudication by the Court of Claims of claims against the United States for depredations committed by Indians, and authorized the payment of such claims from the annuities due the tribes, and from funds due them arising from the sale of their lands or otherwise. Vigorous protest against the manner of payment has been made by the Indian Office. The number of Indian depredation claims of record in the Indian Office in 1896 was 8,007, of which 4,271 had not been sent to the Court of Claims. That court, with which many claims were originally filed directly, reported 10,841 claims on file in 1894, the amount claimed therefor being \$43,515,867. The presentation of any claims of the kind after 1894 was barred by the act of March 3, 1891.

The direct total cost of the Indians to the United States from 1776 to the close of the fiscal year 1896 was \$315,824,372.32. The grand cost, including wars for the century from July 4, 1776, to June 30, 1886, was \$929,239,284.

Miscellaneous.—To religious and other societies upon Indian reservations the allotment act of 1887 confirmed a grant of 160 acres each, so long as it should be occupied, the work carried on by the religious denominations having been found a very potent, if not indispensable, auxiliary to the efforts of the Bureau for the elevation of the Indians.

Indians have at various times, under authority from the Indian Office, been taken from reservations for exhibition, but the practice is discountenanced, and fewer permits of the kind are now made. Whenever engagements with Indians for exhibition are made, their employers are required to enter into written contracts with the individual Indians, obligating themselves to pay such Indians fair stipulated salaries for their services; to supply them with proper food and clothing; to meet their traveling and needful incidental expenses, including medical attendance, from the date of leaving their homes until they return thither; to protect them from immoral influences; and to employ a white man of good character to look after their welfare. They are also required to execute a bond for the faithful fulfillment of such contracts.

Indians now form an integral part of the regular army of the United States, and by becoming soldiers they do not lose their right to lands, annuities, and other assistance furnished by the Indian Office in fulfillment of treaties.

Administration of Indian Affairs.—On July 12, 1776, a plan was adopted by the Continental Congress to secure and preserve the friendship of the Indian nations, and commissioners were appointed for three departments of Indians—a northern, a southern, and a middle department. Benjamin Franklin, Patrick Henry, and James Wilson were elected commissioners for the middle department; Philip Schuyler, Joseph Hawley, Turbot Francis, Oliver Wolcott, and Volkert P. Duow, commissioners of the northern department; and John Walker, of Virginia, and Willie Jones, of North Carolina, with three others, commissioners of the southern department. On April 29, 1776, a standing Committee on Indian Affairs was organized in Congress. Article IX of the Articles of Confederation gave to Congress the exclusive right and power of regulating the trade and managing all affairs with the Indians, and on Aug. 7, 1786, the Indian Department was divided into two districts—the southern, comprehending all the nations of Indians within the United States south of Ohio river; and the northern, comprehending all other nations of Indians in the United States west of Hudson river. Two superintendents were appointed, who reported to the Secretary of War and were under his direction. The Federal Constitu-

tion provided that Congress "shall have power to regulate commerce with the Indian tribes," and, by decisions of the Supreme Court "commerce" being declared to mean "intercourse" between citizens of the United States and the individuals composing those tribes, it followed that nothing could arise out of our relations with the Indians that was not subject to regulation by Congress. In 1790 an act of Congress inaugurated a system of licensed trade with the Indians, forbade the sale of Indian lands unless authorized by the Government, and prohibited trespass upon Indians or Indian lands. In 1806 the office of Superintendent of Indian Trade was created. In 1802, to promote civilization among the friendly Indian tribes, and to secure the continuance of their friendship, the annual expenditure of \$15,000 was authorized, to furnish them with useful domestic animals and implements of husbandry and with goods or money, in the discretion of the President, and the appointment of temporary agents was permitted. This was followed by the act of March 3, 1819, which inaugurated the policy of educating the Indians, looking to the "employment of capable persons, of good moral character, to instruct them in the mode of agriculture suited to their situation and for teaching their children." After this period school funds were created in treaties entered into with the Indians, the interest from which was applied to the establishment and maintenance of schools on the reservations. But not until 1877 was a definite system of education for the Indians at public expense entered upon, when the appropriation of \$20,000 was made, which in 1885 was increased to nearly \$1,000,000, and which has grown steadily year by year. On July 9, 1832, the office of Commissioner of Indian Affairs was created, but the act of June 30, 1834, stands as the organic law of the Indian Office, which was transferred from the War Department to the Department of the Interior, March 4, 1849. The restoration of Indian affairs to the control of the military has been advocated at various times, and from March, 1869, to July, 1870, army officers, detailed for the purpose, acted as agents at most of the agencies, and similar action was taken in the Sioux country during the last outbreak of that tribe in 1890. Under the act of July 13, 1892, army officers are now detailed to act as Indian agents whenever vacancies in that office occur, and are under the orders of the Secretary of the Interior. Originally, the duties of Indian agents related only to the superintendence of trade with the various tribes; but with the increase of white settlement and the ensuing attitude of dependence of the Indians for protection, they became more diverse, and at present they may be defined briefly as follows: To induce Indians to labor at civilized pursuits; to preserve order on the reservations; to protect Indians holding lands in severalty and Indian rights in matters of trade; to remove persons found in the Indian country contrary to law; to suppress traffic in intoxicating liquors; to investigate depredation claims; to oversee all employees; to have charge of all Government property and agency stock; to receive and distribute supplies; to disburse money received; and to supervise schools. Until 1869 Indian agents reported to superintendents of two or more agencies and to the Commissioner of Indian Affairs at Washington—a system vicious and dangerous in the extreme, discontinued as one of the first changes inaugurated by President Grant in his "peace policy," which was said to have been "fraught with more good to the Indian and the country than all the measures of years past." From 1870 till about 1890 Indian agents were appointed by recommendation of the several religious denominations, but without satisfactory results. In 1896

there were 55 Indian agents, covering one or more reservations, of whom 38 were civilians and 17 army officers acting in that capacity. The salary of an Indian agent ranges from \$800 to \$2,200, and bonds are required from them in \$2,000 to \$125,000. The employees under Indian agents on the reservations, exclusive of school employees, are physicians (the Government having assumed the medical oversight of the great body of the Indians, with the exception of the Five Civilized Tribes), clerks, interpreters, farmers, carpenters, blacksmiths, apprentices, herders, etc. Whenever it has been found practicable to employ Indians, it has been the policy of the office to give them the preference, and in the large majority of instances they have been found faithful and earnest. There are Indian employees at every agency, except 2, one of which is very small, and the other has only 2 employees. One agency has 107 Indians employed, another has 76, and 2 have 51; 22 have over 20, and 19 have from 10 to 20 Indians on the rolls. These figures do not include employees in schools. The appointment of Indians is permitted without examination or certification by the Civil Service Commission to all places except those of superintendent, teacher, teacher of industries, kindergartner, and physician. The total number of whites employed in the Indian service in the field in 1896 was 635, and the total number of Indians, in excepted places and having salaries below classification, was 1,434. The total of salaries paid to whites employed at agencies during the year was \$546,670, while the total of salaries paid to Indians aggregated \$258,140, nearly half the amount paid to white employees. White school employees at the agencies during the year numbered 1,365, and Indians employed in excepted places 705. The salaries paid to the white school employees amounted to \$849,645, and those paid to the Indians to \$148,766.

In addition to the clerical force of the Indian Office at Washington, there are employed in the Indian service 5 Indian inspectors in the field at a salary of \$2,500 per annum; 5 special Indian agents, at a salary of \$2,000; and a superintendent of Indian schools, with a salary of \$3,000. Various commissioners are appointed, as exigencies arise, to negotiate with Indians, to select and appraise lands, etc. Prior to 1851 commissioners to frame treaties with the Indians were appointed at the pleasure of the President, but after that date they were ordered by Congress to be chosen by him from officers of the Indian Department only. Prior to 1787 the States were empowered to appoint commissioners to the Indians, who, under Federal superintendents, in some cases made treaties. Since 1869 an advisory board of 10 Indian commissioners, appointed by the President, with headquarters in New York city, supervise the letting of contracts and furnishing supplies for the Indians, and oversee the moral and physical condition of the race, visiting and inspecting reservations, and reporting annually to Congress. This service is rendered gratuitously.

Indians who maintain an advanced form of tribal government, in addition to the Five Civilized Tribes, who have severally a republican form of government assimilating closely the governments of the States, are the New York Indians, whose government is based on a constitution approved and ratified by the Legislature of the State of New York; the Osage Indians, whose Government is based on a constitution approved by the Interior Department; the Pueblo Indians of New Mexico, who live under their ancient form of local town governments; and the Eastern Cherokees, who have an organized form of tribal government, and have been individually recognized as citizens of North Carolina.

Indians on reservations are not taxed, and after

allotment their lands are exempted from taxation for a period of twenty-five years, being held in trust for them by the United States Government. The Indian Office holds also that whatever the right of a State or Territory to assess or tax personal property of Indian allottees, acquired by purchase or inheritance, all articles issued to them by the Government are exempted from taxation, and, in the case of horses or cattle, such ruling applies also to their increase.

In the allotment of lands, the question has arisen, What is an Indian? where the rights of half-breeds and mixed bloods are concerned. The old English common law which makes the father the controlling factor and determines relationship through him, appears not to be applicable to the condition of the American Indians, where the mother, and not the father, is the chief factor, and according to which half-breeds and mixed bloods are recognized as Indians.

The general allotment act of 1887 provided, as has been said, for the naturalization and citizenship of all Indians within the United States. Prior to that act Indians became citizens by treaty conditions and special acts of Congress, the first treaty being that with the Cherokees in 1817. The Choc-taws in 1820 concluded a treaty providing for the future allotment of their lands east of the Mississippi, and for their becoming citizens. The first lands allotted to Indians in severalty were those of the Brothertown Indians in Wisconsin, authorized by act of Congress, March 3, 1839. These Indians, on receiving their patents in fee, became citizens of the United States. The same policy was followed in the case of several other tribes, notably the Ottawas and Chippewas, the Pottawatomies, the Shawnees and Wyandottes, but with disastrous results where no restrictions were made as to the alienation of lands conveyed to the Indians in fee simple. No Indian ever exercised the right of citizenship under the fourteenth amendment to the Constitution, as its provisions were held to be limited to those only who were born owing no allegiance to any tribal government and bearing the burdens of taxation. It has been much discussed whether the Indians residing in the territory ceded by Mexico became citizens of the United States under the treaty of Guadalupe Hidalgo, inasmuch as, under what is known as "the plan of Iguala," Indians were recognized as citizens of Mexico, and would thus have become citizens of the United States. They never have been so treated, however, and the Pueblo Indians in New Mexico, although a sober, virtuous, and industrious people, and recognized as politic and corporate bodies, far in advance of other tribes in civilization, still await action by Congress to entitle them to the privileges of citizenship.

RHODE ISLAND, a New England State, one of the original thirteen, ratified the Constitution May 29, 1790; area, 1,250 square miles. The population, according to each decennial census, was 68,825 in 1790; 69,122 in 1800; 76,931 in 1810; 83,015 in 1820; 97,199 in 1830; 108,830 in 1840; 147,545 in 1850; 174,620 in 1860; 217,353 in 1870; 276,531 in 1880; and 345,506 in 1890. By the State census of 1895 it was 384,758. Capitals, Providence and Newport.

Government.—The following were the State officers during the year: Governor, Elisha Dyer; Lieutenant Governor, Aram J. Pothier, succeeded in May by William Gregory; Secretary of State, Charles P. Bennett; Treasurer, Clinton D. Sellew, succeeded in May by Walter A. Read; Attorney-General, Willard B. Tanner; Auditor, A. C. Landers; Superintendent of Education, T. B. Stockwell; Adjutant General, Frederick M. Sackett; Factory Inspectors, J. Ellery Hudson and Helen M. Jenks; Record Commissioner, R. Hammett Tilley; Chief

Justice of the Supreme Court, Charles Matteson; Associate Justices, John H. Stiness, Pardon E. Tillinghast, George A. Wilbur, Horatio Rogers, W. W. Douglas, and Benjamin M. Bosworth; Clerk, B. S. Blaisdell—all are Republicans.

Finances.—The receipts for 1897 were \$1,405,690.14. The deficit and checks outstanding Jan. 1, 1897, were \$26,017.02; the amount paid on account of appropriations, \$1,329,013.88; the amount paid on note, money borrowed by authority of Legislature, \$50,000. The balance in the treasury, Dec. 31, 1897, was \$649.24. The Statehouse construction loan sinking fund amounted to \$209,422, an increase during the year of \$27,254.

Wealth.—The valuation of the ratable property in the several towns and cities in 1897 was \$384,817,957, an increase of \$1,824,433 over 1896. The cities of the State contain ratable property valued at \$266,564,635. The entire land area of Rhode Island is equal to 694,400 acres, of which 465,043½ acres are in farm properties. The number of farms reported is 6,441. The total value of farm properties, which includes land, buildings, live stock (exclusive of poultry and bees), implements, etc., is \$30,759,698. The value of poultry on hand Nov. 1, 1895, was \$397,610.62, and the value of bees \$12,681.70. The total investment in farming, poultry raising, and bee keeping in 1895 amounted to \$31,169,990.32. The investment in farming may be subdivided as follows: Lands, \$16,388,729.50; buildings, \$10,687,446.60; implements, \$827,346.80; live stock, \$2,094,393.70; greenhouses, \$325,284; and other miscellaneous capital, \$436,497.50.

The following amounts were in 1895 invested: In textile industries, \$73,536,762; in metals and machinery, \$18,056,872; jewelry, \$12,175,444; rubber goods, \$4,049,485; stone and marble working, \$818,658.

Insurance.—The amount of life insurance in straight companies in force at the beginning of the year in the State was \$38,678,868, an increase of over \$2,000,000. The amount in industrial companies was \$17,476,393, an increase of \$1,782,491. In assessment companies the amount in force was \$2,707,367, an increase of about \$7,000.

There are 26 fire insurance companies in the State, 3 joint-stock and 23 mutual companies; the joint-stock companies with a cash capital of \$900,000; admitted assets, \$3,168,614; liabilities, \$1,494,671; surplus, \$773,943; the 23 mutual fire insurance companies with cash assets, \$4,918,493; contingent assets, \$17,667,228; liabilities, \$2,212,944; surplus, \$2,706,451. The risks written and renewed in the State by the 26 Rhode Island insurance companies during the year 1897 amounted to \$424,999,834.

Banks.—There are 35 savings banks in the State, which had aggregate deposits in 1897 of \$69,434,455.48, an increase of \$750,757.58 over 1896. This wealth belongs to 188,301 individual depositors, who in number in 1897 were 2,153 larger than in 1896. There are 6 State banks of circulation and deposit, which in 1897 had a cash capital paid in of \$916,675, and deposits amounting to \$721,711.66. The aggregate resources of these 6 State banks in 1897 amounted to \$1,911,559.89. There are 8 trust companies in the State, which in 1897 had an aggregate capital stock of \$2,840,100.19, and a surplus of \$1,130,100.19. The combined resources of these financial institutions then was \$26,053,275.18, and their banking clientage 7,610 depositors. There are also 57 active national banks in the State, with capital stock, \$19,337,050; with resources, \$55,587,225.81; a surplus fund, \$4,951,962.09, and individual deposits subject to check, \$18,436,658.13.

Education.—The school census of 1897 gave an enumeration of 76,262; the number reported as attending public schools was 53,195; number reported

as attending Catholic schools, 11,025; number reported as attending select schools, 1,307; number reported as not attending any school, 9,735. Number of graded schools, 1,098; number of ungraded schools, 246.

The school census shows a gain of 1,062 on the number enumerated, the gain in attendance at public schools being 1,255, and in select schools 180, while there is the slight falling off of 266 at the Catholic schools.

There has been no increase in the number of high schools in the State, but there has been a gain of over 10 per cent. in the enrollment and of just 10 per cent. in the actual attendance. The total cost of instruction *per capita* on the basis of attendance has been \$25.48.

The average salary of teachers is \$527.85, an increase of 90 cents over 1896. The wages of men have fallen off \$1.29 a month, while those of women have gained 2 cents a month.

There is an increase of 5 evening schools over last year, with a gain in enrollment of 1,265. The *per capita* cost on the average attendance has decreased \$1.20.

The expenditures for public day schools were \$1,131,086.43; for public evening schools, \$49,671.55; for the State Normal School, including mileage for pupils, \$25,837; for the Agricultural College, \$9,997.83; School of Design, \$3,000; teachers' institutes, \$265.40; free public libraries, \$5,740. Besides these current expenses, \$89,069.82 was paid for a normal school building, \$40,077 for a drill hall at the Agricultural College, \$534,613.81 for sites, buildings, and furniture of schools, and \$16,363 for apparatus and reference books.

The State Home and School cost \$20,238.85; the Institute for the Deaf, \$17,928.91; the Reform School for Boys, \$49,672.13; the Reform School for Girls, \$3,759.90; and \$3,224.23 was paid for pupils at the Massachusetts School for the Feeble-Minded, \$272.50 to the Pennsylvania School for Feeble-Minded, and \$7,291.40 to the Perkins Institution for the Blind.

Of the total expenditure for education, which amounted to \$1,329,001.71 for current expenses, and \$681,157.81 for permanent improvements, \$409,705.98 came from the State treasury.

The Normal School Board reported that there were 250 young women and 1 young man in the school.

The catalogue of Brown University shows a total enrollment of 925, against 860 in 1897; the graduate students number 99, and the Women's College has an attendance of 165. The resignation of President Andrews was accepted in September, and B. F. Clark was elected acting president.

The University Grammar School, founded in 1764, is to be merged in the English and Classical School at the end of the year. It has been a preparatory school for the university, which owned the building and grounds, and now desires to use them for its own expanding work.

The city of Providence has received \$245,000 from John Nicholas Brown for a public library building, and Frederic Clark Sayles, first Mayor of Pawtucket, has offered to found one for that city.

Charities and Corrections.—The total number of inmates at the State institutions at Cranston at the end of 1896 was about 2,210. They were classified as follows: Workhouse and House of Correction, 211 men, 88 women, 299; Hospital for the Insane, 348 men, 370 women, 718; almshouse, 152 men, 161 women, 32 boys, 23 girls, 368; prison, 170 men, 2 women, 172; Providence County Jail, 221 men, 20 women, 241; Sockanosset School for Boys, 358; Oaklawn School for Girls, 54.

The receipts from labor, and other sources at the

State Prison were \$26,685.28; expenditures were \$51,727.41.

Military.—The Governor recommended to the Legislature in February that the usual encampment be omitted this year, and the money saved for needed equipments; and it was so resolved.

The apportionment to the State on the first call for troops was 690. The brigade of State militia, consisting of two regiments of infantry, a battalion of cavalry, and one of artillery, was about 1,100 strong, and the naval battalion had about 185 men. The troops raised for the war were quartered on the State camp ground at Quonset Point in North Kingstown, on Narragansett and Wickford Bays, 17 miles from Providence. The total expense incurred by the State in recruiting and equipping the troops was \$221,844.

Industries.—The operatives of the cotton mills took part in the general strike that followed the reductions of wages in New England factories in January.

The factory inspectors found employed in 433 establishments 78 more than last year, as follows: Men, 35,967; women, 27,292, boys under sixteen years of age, 2,616; girls under sixteen years of age, 1,923; total, 67,798. This is an increase over last year of 4,029 in the number of men employed and 3,158 in the number of women employed, a decrease of 275 in the number of boys employed and an increase of 28 in the number of girls employed; a total increase of 6,940.

The figures show that while there was an increase of 7,187 in the number of adults employed, there was a decrease of 247 in the number of children under sixteen years of age. This is the first material proportional decrease in the number of children employed that has been reported since the factory inspection law went into effect.

Providence.—The Legislature passed an act enabling the citizens of the compact part of the town of Johnston to vote on its annexation to the city of Providence. The vote, May 25, showed that more than 75 per cent. of the qualified voters cast ballots, and 1,011 voted in favor of annexation and 494 against, so that this part of Johnston became a part of Providence, June 1. It includes an area of about 1,200 acres, of generally improved property, containing 26 miles of platted streets, 15 miles of which have been received as public highways, and more than half of which are graded and curbed and paved or macadamized. It will add to the taxable valuation of property in the city over \$5,000,000. The increase of population will be more than 8,000, including 1,500 persons who are qualified to act as voters.

The customs statistics for 1898 show that the total of duties collected at the port was \$220,210, and the value of imports \$720,092, of which those free of duty were valued at \$101,878.

Providence now has a street railway to Taunton, Mass.

Legislative Session.—The winter session of the Legislature opened at Providence, Jan. 25, and closed May 6. J. Edward Studley was Speaker of the House. The Assembly took a recess March 4 for a month. The summer session at Newport extended from May 31 to June 15. Adjournment was taken to Nov. 22, so that measures made necessary by the revised Constitution might be enacted. Its rejection at the polls made further legislation unnecessary, and final adjournment was taken Nov. 23.

United States Senator Nelson W. Aldrich was re-elected June 14, by a vote of 96 to 4.

An appropriation of \$150,000 was voted, April 21, for military and naval expenses, and an additional \$150,000 June 15. An appropriation was made

also for medals to be given to honorably discharged soldiers and sailors of the Spanish war.

W. H. Walker was chosen quartermaster-general, and Olney Arnold commissioner of the sinking fund.

The completed State census of 1895 was presented at the May session by the superintendent, Henry E. Tiepke.

A resolution was passed favoring the resolution introduced in Congress proposing an amendment to the Constitution giving Congress power to fix uniform hours of labor in factories throughout the United States.

A new law in regard to the collection of taxes protects investors in mortgages. Heretofore a rule has been in force that where property on which a tax was due to the municipality had been disposed of, the tax might be levied on other property in which the one against whom it was assessed had an interest; so that a piece of mortgaged property might become liable for a large amount of taxes due on other property which the owner had disposed of. The new law provides that if any person is taxed for several parcels of real estate, each of such parcels shall be liable for the payment of the tax assessed against it, even though the same may have been aliened; and no such parcel shall be liable for any tax assessed against any other parcel. If any person is taxed for real estate and for personal estate in the same tax, the whole of such person's tax may be collected either out of the real or personal estate. If any person is taxed for several parcels of real estate and for personal estate in the same tax, and the tax on personal estate can, in the opinion of the collector, be best collected out of the real estate, each of such parcels shall be liable for the payment of the tax assessed against it, together with such portion of the tax on the personal estate as the assessed value of such parcel bears to the aggregate assessed values of all of such parcels.

A law regarding education provides that all teachers hereafter must have certificates from the State board. State aid is to be provided for towns consolidating ungraded schools to form graded schools, and to those making provision for attendance of their pupils at other high schools and academies. Towns consolidating their schools may pay for conveyance of pupils to and from school.

An act applying to street railways that should accept its provisions before Oct. 1, 1898, provides that in lieu of all other special State taxes, companies paying a dividend of 8 per cent. or less shall pay a State tax of 1 per cent. of their gross receipts. Those paying dividends greater than 8 per cent. pay an amount equal to the excess of the dividend over 8 per cent. The contract can not be altered without consent of both parties. Issues of capital stock are subject to the approval of the Railroad Commissioner. Cities and towns may not revoke the franchise, but may order change of route with the approval of the commissioner; appeal may be taken to the Appellate Division of the Supreme Court.

Other acts were:

Providing that the law on commercial fertilizers be enforced by the Board of Managers of the Agricultural College.

Prohibiting the confinement of juvenile offenders with older prisoners. Children under thirteen, when held for trial, must be committed to the custody of the Board of Charities or some specified charitable society; and if convicted must be sent to reform schools, except for offenses punishable by imprisonment for life.

Providing that soldiers and sailors in service in time of war may vote.

Allowing persons to petition the Supreme Court

for a judgment declaring their citizenship and their residence and domicile in the State.

Providing that there shall be no days of grace on notes, etc., unless expressly provided for, except three days for bills of exchange and one day in case of evidences of indebtedness falling due on holidays.

Providing that the Governor may draw on the Treasurer for \$3,000 annually, instead of \$2,000 as heretofore, for payment of any special services of a public nature.

Appropriating \$14,000 annually, instead of \$12,000, for education of deaf, blind, and imbecile children.

Providing for the procuring of lists of soldiers in Colonial and Revolutionary wars by the Commissioner of Records.

Making taxes assessed in fire districts a lien against real estate, to continue two years if estate is aliened.

Political.—State officers were elected April 6, and a Legislature.

The first candidates to be put in nomination were those of the Prohibition party, which held its convention in Providence, Feb. 22. Besides reaffirming the central principle of the party, the resolutions declared in favor of woman suffrage, Sunday observance, radical changes in taxation laws, an amendment to the election laws insuring to all parties having place on the official ballot an equal right to supervisors of elections, and the no-license movement; and said also:

"We deplore the continuance of hard times, and declare it to be our firm conviction that the annual expenditure of more than one billion dollars by the people of the United States for that which is not bread and which satisfieth not is the greatest cause of hard times.

"We condemn the lax manner in which the laws of the State are being enforced, and especially the practice of attorney-generals whereby the imprisonment fixed by law is remitted by said official. As declared by the Supreme Court, the practice is a vicious one."

The nominations were: For Governor, Edwin A. Lewis; Lieutenant Governor, C. D. Harp; Secretary of State, Joseph A. Peckham; Treasurer, Elisha T. Read; Attorney-General, James A. Williams.

The Democratic Convention met March 14. The resolutions cited the important acts passed by the last Legislature with a Democratic majority four years ago; among which were an amendment to the Constitution giving registry voters in cities the right to vote for city council, an act for the calling of a constitutional convention, and a corrupt-practices act; they then condemned the acts of the Republican Legislature since, naming the franchise grant to the Providence street railway, and said:

"This year, owing to a revolt against bossism in the cities of Providence and Pawtucket, the opposition numbers about 20 per cent. of the Legislature. The result has been an exposure of machine politics such as modern Rhode Island has never before witnessed."

After mentioning the bills introduced in the Legislature by the opposition and not acted upon in consequence of the recess taken by the Assembly, the resolutions closed with the following:

"We pledge our party against the repeal of the ten-hour law, or its amendment to lengthen the hours of labor; and in behalf of our great manufacturing population we call upon the Republican State Convention, which meets in this city two days hence, to pledge that party also against repealing the ten-hour law for women and children, or lengthening their hours of labor.

"We denounce the extravagance of the Statehouse Commission, which seeks to impose upon the people of the State a \$3,000,000 Statehouse, after it had entered into an implied contract with the people that the Statehouse should not cost over \$1,500,000.

"We are in favor of a constitutional convention at the earliest possible moment."

Following were the candidates: For Governor, Daniel Church; Lieutenant Governor, Lafayette Bartlett; Secretary of State, Miles A. McNamee; Treasurer, Edmund Walker; Attorney-General, George T. Brown.

The Republican Convention, March 16, adopted a platform largely devoted to national issues. On State matters it said:

"We commend to the intelligent electors of the State the resolution proposing an amendment by way of a revision to our State Constitution. Framed by an able and non-partisan commission, after great study and deliberation, unanimously reported to the General Assembly, and passed by both houses thereof without a dissenting vote, we believe its final adoption to be in the line of progress and for the best interests of the State.

"We are glad to see the growing demand for good roads and the advance in the knowledge of their necessity and the improved methods of their construction. We think that the time has come for the inauguration of a policy looking to the immediate betterment of the main highways and avenues of trade throughout the State, to be accomplished without imposing a disproportionate expense or unnecessary burdens upon the smaller towns of the State.

"We believe that the Statehouse now being constructed by a non-partisan commission, composed of eminent citizens honored by their respective political parties, should be completed at as early a date as possible, in order that the State may begin to realize a return for the outlay which it has already made, and that for this reason the authority should be granted to the General Assembly to issue bonds to the amount of \$800,000 for the purpose of finishing the building. To refuse to continue the work at this time will entail expense upon the State, and the work already done can not fail to be injuriously affected. The various State offices should be assembled in the new building at the earliest possible moment, thus securing their valuable records and papers from destruction by fire, and saving an outlay for rentals nearly equal to the interest on the proposed loan."

The State officers were renominated, with the exception of the Lieutenant Governor and the Treasurer, who declined to stand for renomination. The ticket was: For Governor, Elisha Dyer; Lieutenant Governor, William Gregory; Secretary of State, Charles P. Bennett; Treasurer, Walter A. Read; Attorney-General, Willard B. Tanner.

The Republican State ticket won in the election. The vote for Governor stood: Dyer, Republican, 24,743; Church, Democrat, 13,224; Reid, Socialist-Labor, 2,877; Lewis, Prohibition, 2,012.

The Legislature elected stands: Republicans in the Senate 33, in the House 65; Democrats in the Senate 4, in the House 7.

The proposition to bond the State for \$800,000 additional to continue work on the Statehouse was carried by a majority of about \$2,800. The majority for the original appropriation of \$1,500,000 in 1892 was 8,792. The capital cities favored the present appropriation, but many of the smaller towns voted against it.

Constitutional Commission.—This body, consisting of 15 members appointed by the Governor, organized March 16, 1897, electing Thomas Durfee

chairman and Archibald C. Matteson clerk. Its report was presented to the Legislature Feb. 23. A resolution was passed March 4 that the revision should be submitted to the electors, and it was voted upon at the November election, but failed to secure the necessary three fifths, though it received a majority of the votes cast.

ROMAN CATHOLIC CHURCH. The Spanish-American war and its results, direct and indirect, had the gravest effects upon the actions of the Vatican in the year 1898. His Holiness Leo XIII exerted all his influence in the effort to avert a conflict, even to the extent of offering his services as a mediator between the two powers. At the close of the war, the cession of Cuba, the Philippines, and Puerto Rico to the United States necessitated changes in the ecclesiastical administration of those islands to bring it in harmony with their new civil administration. The Spanish Church had previously exercised a direct or indirect influence over ecclesiastical appointments in Cuba and Puerto Rico, and Church affairs were frequently administered from Madrid. The Vatican, in accordance with its policy of vesting, as far as possible, ecclesiastical control in the power which has temporal control, in October appointed Archbishop Chapelle, of New Orleans, apostolic delegate for Cuba and Puerto Rico and *chargé d'affaires* for the Philippine Islands. He was instructed, as were the local bishops and priests, to lend all assistance possible in the work of reconstruction. Such control over the Church in the ceded territory as was not vested in the apostolic delegate reverted directly to the Vatican.

The work of the Holy Father for the unification of all Christians in the Catholic Church resulted in 1898 in the establishment and extension of missions among the schismatic Copts in Egypt, and in several concessions to the Slavic peoples of Austria, Bulgaria, and Roumania. One of the most important briefs issued by the Pope in the year was the papal constitution on the devotion and Confraternity of the Holy Rosary. The charge of the confraternity, which embraces chapters in nearly every church in the world, was by the new constitution formally made dependent on its supreme head, the Master General of the Dominicans. The constitution, which defined the rules, rights, and privileges of the confraternity, was preceded by an encyclical letter on the same subject, exhorting the faithful especially to this devotion.

His Holiness in December gave a constitution to the College of St. Bede the Venerable at Rome, and appointed Cardinal Vaughan protector of the college and Mgr. Merry del Val deputy protector. The establishment of the college was entirely the work of his Holiness, and at his expense. Its immediate aim was to meet the exigencies of the movement in England toward the Catholic Church, and its establishment was considered by the Pope as another step toward the realization of his hope for the reunion of Christendom. Among the other public acts of the Holy See were an encyclical letter addressed to the archbishops and bishops of Scotland, regarding the interpretation of Holy Scripture, and warning the bishops against the erroneous doctrines on the Holy Eucharist prevalent in England; an encyclical issued in August, and addressed to the clergy and people of Italy, protesting against the suppression of Catholic societies by the Italian Government; an extension of special privileges and indulgences to those participating in the celebration of the nine hundredth anniversary of the institution of the commemoration of All Souls at Cluny, France; and an approval of the proposal submitted to him by the Committee of the Divine Redeemer, in connection with which his Holiness gave orders for the celebration of a general jubilee at the close

of the century. He also issued an apostolic letter expressing his approval of the constitution of the Sisters of St. Joseph in the United States. By a *motu proprio* issued in June he confirmed and as far as was necessary granted anew to the Sacred Congregation of Indulgences and Relics all the faculties and rights vested in it by its founder, Clement IX, July 6, 1669, and declared these to belong solely to this congregation.

The Pope in November caused an article to be written for the "Civita Catolica" warmly approving the Czar's proposal for disarmament. The article recalled the fact that the Pope supported the peace congress at Buda-Pesth in 1896, and concluded by urging the Catholics of all countries to support with all their strength, even by popular meetings and public demonstrations, the idea of a peace congress.

The Pope at the same time sent to all the representatives of the Holy See abroad instructions to do what they could with the Government to which they were accredited, and with the Catholics in their vicinity, in favor of disarmament. His Holiness said to one of the cardinals: "I hope God will permit me to live long enough to see the objects of the Czar realized, and the peace of Europe established on a firm and definite basis."

The twentieth anniversary of the election of Leo XIII to the pontificate was celebrated on Feb. 20.

His Holiness in December received a deputation of the officers of the disbanded pontifical army. He also received several deputations during the year, among others one of Mexican pilgrims in March, one of Italians in August, and one of English pilgrims in October.

The Church of St. Joachim at Rome, erected by contributions from Catholics in all parts of the world as a memorial of the golden jubilee of his Holiness (1893), was finished in August, and the fathers of the Redemptorist Congregation solemnly placed in charge of it.

The Roman branch of the Confraternity of Notre Dame de la Compassion for the conversion of England was inaugurated at Rome on Feb. 2. His Eminence Cardinal Gaeton Alvisi Massella was on March 14 named protector of the Sisters of the Christian School of Mercy. Among the decisions of the Sacred Congregation of Rites, not elsewhere noted, were the following: The carrying of images and statues of the saints in procession with the Blessed Sacrament was prohibited; the recital in the public functions of the Church of litanies not having the approbation of the Holy See was not approved. A litany of the Sacred Heart was approved for liturgical use in the dioceses of Marseilles and Autun, in France. The canonization process by the Sacred Congregation of Rites was concluded in the questions of Blessed Hroznata, martyr, and Blessed Innocent V of the Dominican Order. By a decision of the Sacred Congregation of the Inquisition national and other flags belonging to secular societies were forbidden to be introduced into the church on the occasion of religious functions, or in funeral processions accompanied by the clergy.

Statistics.—Two cardinals died in the year: Eleazer Taschereau, Archbishop of Quebec, born Feb. 17, 1820, created cardinal June 7, 1886; and Sylvester Sembratowicz, Ruthenian Archbishop of Lemberg, born Oct. 3, 1836, created cardinal Nov. 29, 1895.

The Sacred College of Cardinals when complete consists of 6 cardinal bishops, 50 cardinal priests, and 14 cardinal deacons. There were in 1898 57 cardinals and 13 vacancies. Five of the cardinals were created by Pius IX and 52 by Leo XIII; 128 cardinals died in the present pontificate. Of the

57 cardinals, 30 were Italian, 9 Austrian, German, or Polish, 7 French, 3 British, 4 Spanish, 2 Portuguese, 1 American, and 1 Belgian. Of the 46 cardinal priests, 2 were patriarchs, 28 were archbishops, and 7 bishops of residential sees, and the others had received episcopal consecration.

There were in the Church 14 patriarchal sees, 971 archiepiscopal and episcopal sees; and the number of patriarchs, primates, archbishops, and bishops, including those retired and the archbishops and bishops of titular sees, was 1,284.

United States.—The Supreme Court of the United States, in February, handed down a decision adjudicating a bequest for masses to be a charitable bequest. Cardinal Gibbons, under date of December 5, sent a petition to Congress on behalf of himself and the archbishops of the United States, praying that the subject of Indian education under Government and contract systems be reopened. Under the contract system appropriations were made annually for Indian education, and contracts were let to the various religious societies which had previously established schools in the reservation. At no time, said the cardinal, was complaint made in regard to the quality of education furnished, the objection which led to the abrogation of this system being that sectarian schools were supported at public expense. Under the law at present in force unsectarian Government schools have been established and the appropriation for denominational schools had been cut down 20 per cent. annually since 1895. The latest report of the Commissioner for Indian Affairs asked for a law compelling the attendance of all Indian children at Government schools, with or without the consent of their parents. Cardinal Gibbons advocated a law making education compulsory, but permitting the Indian parent to send his child to a mission school if he chose. The petition closed with the request that the whole subject of contract and Government schools be reopened, and the results of the different systems compared.

Earlier in the year Bishop Ryan, of Philadelphia, addressed the Senate Committee on Indian Affairs to sustain the appropriation for maintaining pupils at the Indian contract schools, and on Oct. 13 the Committee of Archbishops on Indian Affairs, in session at Dunwoodie, N. Y., appropriated \$67,000 for the Indian schools.

Mgr. Byrne, Bishop of Nashville, in December, presented a petition to his Holiness praying that the constitution of the brothers of the Christian schools be altered so as to allow them to teach the classics in the schools and colleges in the United States. The brothers had hitherto been permitted to teach these branches, although such instruction was contrary to the letter and spirit of their original constitutions. On this account the central authorities of the order forbade the continuance of this practice in derogation of the rule. Many ecclesiastics in America, who desired to retain the successful services of the brothers on behalf of Catholic higher education, seconded the plea of the Bishop of Nashville that the United States be exempted from this provision of the constitution of the order.

A bill was passed in July by the House and Senate of the United States authorizing the Secretary of War to permit, in his discretion, the erection of religious edifices on the military reservations of the United States. The law was the result of a petition by Catholics for permission to build at their own expense a chapel on the United States reservation at West Point, a Government chapel being already there, with a chaplain paid by the United States. Subsequent to the passage of the bill, the required permission was given by the Secretary of War. The law was made necessary by the ruling of the Attor-

ney-General, that the Government could not permit any sectarian institution to be constructed on public lands.

The only episcopal appointment made in the year was that of the Right Rev. John F. Cunningham to be Bishop of Concordia, Kan. Other appointments were: The Very Rev. George Searle, C. S. P., director of the Vatican Observatory; Very Rev. John S. Zahm, C. S. C., provincial of the Fathers of the Holy Cross; Right Rev. A. Schmitt, O. S. B., abbot of St. Meinrad's Monastery in Indiana; Rev. Cassian Augier, Superior General of the Oblates of Mary Immaculate; Very Rev. John J. Fedigan, provincial of the Order of St. Augustine in America; Right Rev. Edmond M. Obrecht, abbot of the Trappist Monastery at Gethsemane, Kentucky. On April 14 was held the diamond jubilee of the priesthood of Right Rev. William Vaughan, Bishop of Plymouth; on April 27, the silver episcopal jubilee of Most Rev. William H. Gross, Archbishop of Oregon; on May 4, of Most Rev. M. A. Corrigan, Archbishop of New York; on Oct. 5, the golden jubilee of Right Rev. B. J. McQuaid, Bishop of Rochester. At the same time the cathedral of Rochester was consecrated.

The bishops and distinguished priests who died in 1898 were: Very Rev. James McGrath, provincial of the Oblate Fathers in America; Mgr. Edward McColgan, Vicar General of the Archdiocese of Baltimore; Right Rev. Fentan Mundwiler, O. S. B., abbot of St. Meinrad's; Most Rev. J. B. Salpointe, Archbishop of Sainte Fé; Right Rev. Thomas McGovern, Bishop of Harrisburg; and Most Rev. William Hickley Gross, Archbishop of Oregon.

Alaska.—The second Catholic church to be built in the Klondike region was dedicated in Dawson City, August 12. It replaced a smaller one burned four months earlier, and was the gift of one man. The church had in 1898 a congregation of 600.

Canada.—In presenting the papal encyclical on the subject of the Manitoba elementary schools the archbishops of Canada took occasion to set forth their position toward this question and the principles involved in it for Catholics. They counseled moderation, and advised the people to tolerate the system until such a time as they were enabled to demand what they should consider a just system of elementary education. Until then it was necessary to continue to support both Catholic and state schools.

Of the eight archbishops of Canada, three died in 1898: Right Rev. James Vincent Cleary, Archbishop of Kingston; His Eminence Cardinal Taschereau, Archbishop of Quebec; and Most Rev. John Walsh, Archbishop of Toronto. Other deaths were Right Rev. Louis Lootens, Bishop of Victoria, B. C., and Right Rev. Francis Louis La Flèche, Bishop of Three Rivers. Most Rev. Louis Nazaire Begin was appointed Archbishop of Quebec; Most Rev. Charles H. Gautier, Archbishop of Kingston; and Right Rev. Alexander Christie, Bishop of Vancouver Island.

The vicariate of Pontiac was erected into the diocese of Pembroke on Sept. 21, and Right Rev. Narcisse Zephyrin Lorain by apostolic letter was appointed its first bishop. The Catholic population of Canada in 1898 was 2,184,480.

Great Britain.—The Catholic hierarchy of England in January published a vindication of the bull "Apostolicæ Curæ," by which the Pope in September, 1896, decided that the Catholic Church could not recognize as valid the orders administered by bishops of the Anglican establishment. To this bull two Anglican prelates had sent a reply, urging that Anglican ordination constituted a valid priesthood (*sacerdotium*) as it was understood in the early Christian doctrine. The vindication of the Catholic hierarchy pointed out that an essential

difference between the two orders was one of intention, if the Anglican communion held that Christ did not institute a priesthood such as was held to be conferred in Catholic sacramental orders, i. e., a *sacerdotium* in which the minister offers up Christ, really and objectively present as the victim. The Anglican bishops were requested to define what they meant by the priesthood of the Catholic Church, and whether the powers they believed to pertain to it involved the offering of a real or only of a symbolic sacrifice. If the real presence was held to be a part of the ceremony of the Anglican Church, one barrier between the two orders was removed. If the sacrifice on the other hand was held to be symbolic merely, the ordaining prelates of the Anglican Church, since they did not believe in powers such as were held to belong to Catholic priests, could not have the requisite intention of conferring them.

Cardinal Vaughan, under date of Dec. 28, sent a pastoral letter to the clergy of the archdiocese, apropos of the conquest of the Soudan by the sirdar, and the consequent opening for the establishment of missions. He expressed a hope that the American Church would join in the work, and that the enmity entertained in France toward England in the Soudan might disappear in the common work of civilizing the country.

In the United Kingdom and its colonies in 1898 there were 28 archiepiscopal and 104 episcopal sees and 28 vicariates apostolic and prefectures apostolic. Two archiepiscopal sees, 4 episcopal sees, 5 vicariates apostolic, and 2 prefectures apostolic were vacant. The number of archbishops and bishops holding office in the British Empire was 167, which included 11 coadjutors and 4 bishops auxiliary. In England there were 3,212 priests, 2,247 secular and 965 regular clergy serving 1,854 churches.

The estimated Catholic population of the United Kingdom was as follow: England, 1,500,000; Scotland, 365,000; Ireland, 3,550,000. There were 31 Catholic peers, 18 Catholic lords not peers, 55 Catholic baronets, 19 Catholic members of the Privy Council, 3 Catholic members of the House of Commons for England and 69 for Ireland. The Building Committee for the new Catholic cathedral at Westminster received in September a gift of \$100,000 from an anonymous layman. The silver episcopal jubilee of Bishop Hedley, of Newport, was celebrated on Dec. 30, in Cardiff. Bishop Wilkinson of Hexham and Newcastle on Dec. 23 celebrated his golden jubilee.

On May 12, the territory comprising the vicariate of Wales was erected into a diocese under the title of Menevia.

The archbishops and bishops of Scotland in July received an encyclical letter from his Holiness, by which they were admonished against the errors of private judgment in the interpretation of Holy Scripture, and warned against the false teaching regarding the Holy Eucharist prevalent in England.

Right Rev. Hugh McDonald, Bishop of Aberdeen, died on May 29.

Ireland.—The Catholics of Ireland continued during the year their agitation for the establishment of a university for Catholics. Though it was unsuccessful so far as any direct legislation was concerned, it resulted in the conviction, by many members of the English Legislature, that the demand was reasonable and just. Mr. Balfour speaking as leader of the House of Commons, in February, declared that it filled him with dismay that "Parliament should tamely acquiesce in a condition of things which practically and substantially deprives two thirds of the population of Ireland of higher educational advantages." To the annual

appeal of the Irish bishops, early in the year, the English hierarchy added a petition to the Marquis of Salisbury as head of the Government, praying that the relief they demanded might be granted to the Catholics of Ireland.

The state of affairs from which relief was asked was in 1898 as follows: Of the two universities in Ireland, Trinity College was Protestant by history, teaching, tradition, and association. The other, the Royal University, was non-sectarian, but consisted merely of an examining board authorized to confer degrees. The three Queen's colleges, in Belfast, Galway, and Cork, though non-sectarian in foundation, had become sectarian by teaching and tradition. They were supported by parliamentary grants, so that non-Catholics might receive a free collegiate education. What the Catholics demanded was the establishment of a college, similar to one of the three Queen's colleges; so managed that Catholics might conscientiously attend it, and so endowed that pupils of slender means might obtain at it the same advantages as at either of the three Queen's colleges. Agitation had so far progressed toward the end of 1898 that in the opinion of Mr. Balfour, Parliament, which had shown such consideration for the religious feelings of the Soudanese in the establishment of the Gordon Memorial College, could no longer consistently refuse to establish a college for Catholics in Ireland.

France.—The ninth centenary of the institution of All Souls' Day was celebrated at Cluny, Nov. 30 to Dec. 10, in the presence of the cardinals of Lyons, of Rheims, and of Autun, under special privileges from the Holy See, which allowed the daily celebration of solemn mass for the dead, notwithstanding the occurrence of double feasts. The translation into French by l'Abbé Klein, of the Institute of Paris, of Father Elliott's "Life of Father Hecker," the founder of the Paulist Society, aroused considerable discussion in ecclesiastical circles in France. The doctrines of Father Hecker were attacked as heretical by l'Abbé Maignen, in a book entitled "Is Father Hecker a Saint?" Theological flaws were said to exist in Father Hecker's published works, and the whole matter was finally made the subject of a special session of the Sacred Congregation of Rites, called by the Pope to close the question. The decision, which was reached late in the year, was embodied in an encyclical letter, which up to Dec. 31 had not been issued.

The case of the canonization of Joan of Arc came before the Sacred Congregation of Rites on June 28, in the shape of an investigation of the validity of the apostolic process in the Orleans court regarding the virtue and miracles, *in specie*, for her beatification. This was the second of the three processes required for canonization. The first, which results in the conferring of the title "Venerable" was concluded in 1897. The second, the beatification, requires two miracles for its establishment. The third, the canonization proper, requires the proof of three miracles by her direct intercession. It was expected that this process would be reached in 1899. The progress of the case was watched with great eagerness throughout France. Special preparations were made for a celebration in her honor at Orleans, in May, 1899.

The Chamber of Deputies, in April, passed a law imposing such taxes upon religious communities that payment was impossible if the orders were to continue in existence. Of 180,000 religious in France, 120,000 refused to pay the tax. As a result the premises of many of the oldest religious communities in the world were sold at public auction. Including the pupils of the colleges, convents, and orphanages whom they taught, and the inmates of the homes, asylums, and hospitals whom they

tended, housed, and fed, 2,500,000 persons were in 1898 the beneficiaries of the 180,000 religious subject to the tax.

By an apostolic brief, Leo XIII, in October, confirmed the right of the French to protect Christians in the East. The brief was asked for by the Cardinal Archbishop of Rheims, in connection with the massacre of French and German priests in China.

Mgr. Valteau, Bishop of Quimper, and Mgr. de la Foata, Bishop of Ajaccio, died in the year.

The third national congress of French Catholics was held at Paris, Nov. 27 to Dec. 4. The best Catholic orators of France spoke on various subjects pertaining to religion and society. A pilgrimage of "penitence and expiation" to Lourdes, in April, 1899, was organized under the lay leadership of the Comte de Mun.

Germany.—The strained relations which had existed between the German court and the Holy See were somewhat ameliorated in 1898, by several important concessions made to Catholics by the Emperor. Among these was the reinstatement of the Dominicans in the convent at Cologne from which they had been excluded at the close of the eighteenth century. The convent was one of the most ancient and most celebrated houses of the order, and was the home of Albert the Great, St. Thomas of Aquinas, and Blessed Ambrose of Sienna. The Emperor further conferred the order of the Red Eagle of the first class upon Mgr. Piavi, Patriarch of Jerusalem. Under the direction of the cardinal archbishop the monument of St. Ursula, in the sanctuary of St. Ursula at Cologne, was opened in October for the purpose of lowering it to the level of the floor of the church. The monument dates from the sixth century. Inside it was found a Gothic sarcophagus, covered with a large slab of slate, upon which a picture of St. Ursula was painted. Inside the sarcophagus was a small wooden box, filled with bones, presumably those of St. Ursula and her companions, martyred by the Huns in the fifth century.

Austria.—An important decision of the Sacred Congregation of Rites removed what had been for years a cause of difference between the Vatican and the Church in Austria, Roumania, Bulgaria, and the other countries evangelized by St. Cyril. By the decision the Slavic language was permitted to be used in the liturgy where an established custom of thirty years could be shown to have existed, and where there was no danger of mutilating the sense of the words by the mixture of different dialects. The right of deciding claims to use this permission was vested in the bishops. No other language could be used in the liturgy of the churches obtaining this privilege, and the liturgical books were to be printed and edited under the supervision of the Apostolic See. Another ground of dissension was removed in the admonition to the bishops to have both Slavic and Latin taught in their seminaries in order to enable priests to administer to the Slavic churches. The concession was regarded as an important one, inasmuch as the right to use the Slavic language had been claimed for centuries by the Slavic Church, which maintained that its use had been recognized by early Popes, and had been established when the country was first converted to Christianity.

The golden jubilee of the imperial and royal house of Austria was celebrated on Dec. 2, by the laying of the foundation of the cathedral in Philippopolis by Mgr. Menini, Archbishop of Sofia and Philippopolis, and by services in the churches at Vienna, in the National Teutonic Church at Rome, and in the Church of St. Mary in London, at which latter the Queen and Prince of Wales were each represented, as were all the foreign embassies by their ambassadors and staffs.

Russia.—The year was marked by a general amelioration of the relations existing between Russia and the Holy See. The most important of these was the accrediting of M. Tcharykow as minister to the Holy See for the purpose of presenting to his Holiness the programme for the disarmament congress. As in the preceding year, the Holy See had no direct episcopal communication with the bishops of the Catholic Church in Russia, all relations being carried on by means of the Ministry of Worship. The sending of a Russian ambassador to Rome, however, was looked upon in ecclesiastical circles as an indication that the Czar desired to re-establish free communication between the Vatican and St. Petersburg, and that the next step would be the appointment of an apostolic delegate to the Russian court.

Belgium.—Mgr. Keesens, Senator for Leinburg, late in the year introduced a measure into the Upper Chamber of Belgium for increasing the salaries paid by the state to Catholic priests, which up to that time had been 950 francs a year, as against 1,870 paid to Jewish pastors, and 2,640 to ministers of all Protestant denominations. The support of Catholic clergy by the state was regarded by the Legislature as an act of restitution for the confiscation of all ecclesiastical property by the law of Nov. 2, 1789. The Very Rev. A. Canon Hebbelynck was appointed Rector Magnificus of Louvain University on July 31, to succeed the Right Rev. Mgr. Abbeloos, resigned. By a decree of the Sacred College of Propaganda, confirming the choice of the Board of American Bishops, Canon Jules de Becker was appointed president of the American College, Louvain, in place of Mgr. Willemsen, resigned.

Spain.—By her loss of temporal sovereignty in Cuba and the Philippine Islands, Spain lost also the ecclesiastical control she had previously exercised. The Spanish priests in her former colonial possessions were not recalled, but were placed either under the control of the American delegate apostolic or under the direct supervision of the Propaganda. Instructions were issued to them to assist the new civil authorities in pacifying the people and civilizing the country.

The apparent danger of a Carlist rebellion after the close of the Hispano-American war caused the Pope to issue instructions to the Spanish hierarchy to do all in their power to avert a rising. In case of its occurrence, the priests and bishops were directed to assist and support the reigning family.

Italy.—No essential modification of the strained relations existing between the Quirinal and the Vatican took place in the course of the year. The continued aggressive action of the Italian Government in suppressing Catholic societies, both religious and social, called forth an encyclical of protest from his Holiness, in which the clergy and people were exhorted to remain firm, to keep from disorder, and to refrain as far as possible from participation in Government. The Catholics of Italy late in the year asked the Pope for permission to vote in municipal elections, but the request was not granted. If, as was the consensus of opinion at the Vatican, the Italian Government was in danger of collapse, it was not considered desirable that its fall be hastened or participated in by the Catholic element in the country.

The Holy Father in April received a body of pilgrims from Perugia, saying Mass for them in the Sistine Chapel. After giving them his apostolic blessing, the Pope announced his gift of 500,000 francs to the Institution of Perugia.

At Turin in September took place the public exhibition of the sacred winding sheet in the Church of St. Sindone, and afterward its transfer from that church to the cathedral. The Church of St.

Sindone being the chapel royal of the house of Piedmont, King Humbert himself was present.

Cuba.—As a result of the Spanish-American war, Spanish ecclesiastical jurisdiction in the island of Cuba and Puerto Rico ceased with the defeat of Spain. The Most Rev. Placid Louis Chappelle, D. D., Archbishop of New Orleans, on Oct. 12, was appointed apostolic delegate extraordinary for Cuba and Puerto Rico and *chargé d'affaires* for the Philippine Islands. After a consultation with Cardinal Gibbons in December he thus defined his mission in Cuba, and also the change in ecclesiastical jurisdiction brought about by the war:

"While striving to watch over the religious interest of the Catholic Church, helping the bishops in the work of reorganization, I shall use my utmost influence to help the Government of the United States to succeed in the work of political and social reconstruction.

"All the relations between the Church in Spain and in the two islands have ceased so far as the former exercised any authority. Heretofore the priests were often appointed from Madrid, and Spain exercised great influence and authority, both directly and indirectly. All this is now ended, and for the present the priests and the laity come directly under the supervision of the Church at Rome. The islands have not been placed under the jurisdiction of an American diocese."

In November the Archbishop of Havana issued a pastoral letter which was read in all the churches in Cuba, exhorting the people to respect the new form of Government, with which, he said, the Catholic Church in Cuba would work entirely in harmony. He thanked the Government of the United States for the courtesy and respect shown to priests during hostilities, and asserted his belief that under the new Government the Church would be left free and unrestrained, although not supported by the state, as was the case under Spanish rule.

The Philippines.—More than 6,000,000 of the inhabitants of the Philippine Archipelago were nominally Catholics in 1898. Of these less than one sixth were cared for by secular or native clergy, the remainder being attended to by priests belonging to religious communities, who were nearly all Spaniards. The Church received its principal support from the civil authorities. Of the tribute levied throughout the islands, amounting to about 15 francs *per capita*, the church received a franc and a half, or one tenth, with which churches were built and schools endowed. This alliance between church and state made rebellion against one rebellion against both, and in the insurrection of the Filipinos many monks were put to death, and much ecclesiastical property was either confiscated or destroyed.

The only change in the ecclesiastical administration of the islands made in 1898, was the appointment of the apostolic delegate to Cuba as *chargé d'affaires* for the Philippines. His mission was to examine and report what changes were in his opinion necessary as a result of American accession. It was not thought advisable to bring the islands under the supervision of the American Church until the country should, in part at least, recover from its disturbed condition.

Denmark.—The number of mission stations in Denmark in 1898 was 40, of which 24 contained resident pastors. For the first time in modern years a missionary priest took up his residence in Iceland, establishing a parish at Faskrudsfjord.

South America.—His Holiness Leo XIII under date of Christmas Day, issued a brief, *cum diuturnum*, to the archbishops and bishops of the various countries in Latin America which put forward the design of their holding a general council at Rome

in the year 1899. The happier relations existing between the Papal See and the governments of the various republics of South America, and especially the fortunes of the Church in Brazil, which has steadily advanced since the abolition of the empire, created a hope, said the brief, that a new and far greater future might be reserved for the Latin American churches during the twentieth century. The conferences of the bishops and archbishops is to be directed toward a preparation for this future.

Syria.—Mgr. Ephraim Rahmani, Archbishop of Aleppo, was elected in October by the Synod of Mardin to the patriarchate of Antioch, to succeed the late Patriarch Cyril Behnam Benni. His election revived the hope of an extension of the movement for reunion in the Jacobite Church.

Foreign Missions.—All countries occupied by paganism, schism, and heresy are under the immediate direction of a cardinal prefect of the Sacred Congregation of Propaganda. They are divided into 400 dioceses, vicariates, or prefectures apostolic, whose chiefs are nominated by the cardinal prefect. The missionaries are recruited from 32 seminaries, of which 15 are at Rome. About 30 religious societies also contribute missionary priests and the missions are further assisted by the services of numerous orders of teaching brothers and sisters, and Sisters of Charity. The whole number of missionary laborers in 1898 was as follows:

Priests, 18,314; brothers, 4,502; European sisters, 42,345; native sisters, 12,419. The receipts of the various missionary collecting societies for 1898 were: The Propagation of the Faith, \$1,228,736; the Holy Infancy, \$679,500; the schools of the East, \$54,270. The two last named are for the education of pagan and schismatic children, and their receipts are divided among 181 missions.

The French Société des Missions Étrangères reported as the number of adult heathen baptized in 1898, 70,942, as against 46,826 in 1897. The missions covered by these returns were Indian, Chinese, Indo-Chinese, and Japanese. Of the 1,851 priests engaged in this work under the direction of the society, 581 were natives. In China 6 priests of the society were killed in the course of the year, and more than 20 others were cast into prison where they were at the end of the year. An embassy was sent to Peking to secure their release, but had not succeeded up to Dec. 31.

The report of Indian missions showed a total of 1,925,992 Catholics in that country, with 2,395 priests, of whom 1,599 were natives. There were 32 ecclesiastical seminaries, with 926 students. The proportion of Catholics to population throughout India was 1 to 145; in Ceylon, 1 to 17. In August a Eucharistic Congress for India was held at Madras, at which were present 8 bishops and 60 priests.

The Bishops of Meliapur and Trincomalee in December settled the question of the delimitation of their respective dioceses, the former of which lies under the Portuguese Padroado.

A mission station was established in May by the Marist fathers in the Solomon Islands, the last stronghold of cannibalism. Father Bouillon, the curate of the new diocese, barely escaped forming part of a cannibal feast on one of the islands of New Georgia, at which there were 10 victims.

ROUMANIA, a monarchy in eastern Europe. The legislative power is vested in a Senate of 120 members, elected for eight years by two classes of property holders, and a Chamber of Deputies consisting of 183 members, elected for four years by all the taxpayers, divided into three classes. The heir to the throne, six bishops of the Greek and two of the Roman Church, and two representatives

of the universities have seats in the Senate. The reigning King is Carol I, born April 20, 1839, a son of Prince Karl of Hohenzollern-Sigmaringen, elected Domn of Roumania in 1866 after the abdication of Prince Alexander Cuza, and proclaimed King on March 26, 1881. The ministry at the beginning of 1898, constituted in April 12, 1897, was composed as follows: President of the Council and Minister of Foreign Affairs, Demeter Sturdza; Minister of Agriculture, Industry, Commerce, and Domains, A. Stolojan; Minister of the Interior, M. Pherekyde; Minister of Finance, G. M. Cantacuzino; Minister of War, Gen. A. Berendel; Minister of Public Instruction and Worship, Spiro Haret; Minister of Justice, Alexander G. Djuvara; Minister of Public Works, I. I. C. Bratiano. M. Djuvara early in 1898 gave up the portfolio of Justice to M. Parrani. On Oct. 14, G. M. Cantacuzino resigned the Ministry of Finance, and was succeeded by M. Parrani, whose place was taken by ex-Minister Stoicescu.

Area and Population.—The area of the kingdom is 48,807 square miles, with a population estimated at 5,478,800. Of these about 4,950,000 belong to the Orthodox Greek, 150,000 to the Roman Catholic Church, 15,000 are Armenians, 13,800 Protestants, 10,000 Lipovani, 300,000 Jews, and 30,000 Mohammedans. There are 3,618 primary schools, with 5,411 teachers and 298,253 pupils, out of a total school population of 731,780. The universities of Bucharest and Jassy have 1,650 students. The Government in 1896 expended 9,140,527 lei on primary and 5,970,942 lei on secondary education. Of the total population about 70 per cent. are dependent on agriculture. Nearly all the cultivators own their farms. The number of marriages in 1897 was 41,387; of births, 247,814; of deaths, 171,071; excess of births, 76,743.

Finances.—The budget for the financial year 1899 makes the total receipts 222,095,000 lei, or francs, of which 38,800,000 lei come from direct taxes, 66,570,000 lei from indirect taxes, 51,650,000 lei from monopolies, 24,922,000 lei from domains, 16,745,000 lei from public works, 10,174,000 lei from the Ministry of the Interior, 4,690,000 lei from the Ministry of Finance, 1,415,000 lei from the Ministry of War, 160,000 lei from the Ministry of Foreign Affairs, 229,000 lei from the Ministry of Education and Worship, 229,000 lei from the Ministry of Justice, and 11,450,000 lei from various sources. The total expenditures were estimated at the same figure as the revenue, comprising 81,807,073 lei for public debt, 71,300 lei for the Council of Ministers, 6,612,490 lei for the Ministry of Domains, 5,612,490 lei for the Ministry of Public Works, 18,407,465 lei for the Ministry of the Interior, 26,621,167 lei for the Ministry of Finance, 45,380,325 lei for the Ministry of War, 1,662,281 lei for the Ministry of Foreign Affairs, 27,868,709 lei for the Ministry of Education and Worship, 6,677,836 lei for the Ministry of Justice, and 1,344,284 lei for supplementary credits and extraordinary expenditures.

The public debt on April 1, 1898, amounted to 1,244,849,525 lei. The interest payable in the year 1899 is 70,910,178 lei.

Commerce and Production.—The production of wheat in 1896 was 25,088,700 hectolitres; of corn, 23,056,700; of barley, 11,201,700; of oats, 5,187,300; of rye, 4,305,100; of tobacco, 40,590 quintals; of wine, 4,627,800 hectolitres; of prunes, 967,250 hectolitres. Other crops are colza, flax, and hemp. The total value of the imports in 1897 was 355,783,000 lei, and of the exports 224,180,000 lei. The imports of cereals were 5,400,000 lei in value, and exports, 179,800,000 lei; imports of fruits, vegetables, etc., 23,800,000 lei and exports, 14,800,000 lei; imports of animals and animal food products, 1,000,000 lei,

and exports, 2,600,000 lei; imports of fuel, 10,100,000 lei, and exports 2,200,200 lei; imports of minerals, pottery, and glass, 7,600,000 lei, and exports 1,000,000 lei; imports of metals and metal manufactures 74,900,000 lei, and exports 1,900,000 lei; imports of hides and leather, and leather goods, 16,000,000 lei, and exports 1,600,000 lei; imports of timber and wood manufactures, 5,700,000 lei, and exports 6,700,000 lei; imports of textile manufactures and materials 150,000,000 lei, and exports 2,600,000 lei; imports of paper 6,000,000 lei; imports of drugs 28,800,000 lei; imports of fats and oils 7,300,000 lei; imports of all other articles 10,800,000 lei, and exports 4,700,000 lei.

The commerce was divided among different countries, as follows:

COUNTRIES.	Imports.	Exports.
Austria-Hungary	96,645,000	55,406,000
Great Britain	78,759,000	54,675,000
Germany	98,967,000	6,532,000
Belgium	14,467,000	75,938,000
France	23,915,000	5,092,000
Turkey and Bulgaria	15,478,000	11,614,000
Italy	11,198,000	7,107,000
Russia	8,163,000	3,636,000
Switzerland	4,168,000	169,000
Greece	1,774,000	273,000
Other countries	2,235,000	3,736,000
Totals	355,783,000	224,180,000

Navigation.—The number of vessels entered at Roumanian ports during 1897 was 33,845, of 9,367-850 tons. Cleared, 33,441, of 9,235,535 tons. The merchant navy comprised 54 steamers, of 7,099 tons, and 263 sailing craft, of 66,177 tons; total, 317 vessels, of 73,276 tons.

Communications.—The railroads, all of which are state property, had in 1898 a total length of 1,797 miles, in addition to which there were 201 miles building and 706 miles projected. The state telegraphs in 1897 had a length of 4,286 miles, with 10,304 miles of wire. There were dispatched 1,621,050 internal, 537,436 external, 96,765 service, and 81,129 transit messages. The post office in 1897 transmitted 18,498,355 letters, 14,386,506 postal cards, and 31,022,339 printed inclosures. The receipts were 6,136,280 lei, exclusive of 3,090,269 lei from telegraphs; expenses, 8,809,512 lei, including those of the telegraph department.

European Commission of the Danube.—The International Commission to improve and control the navigation of the Danube, composed of representatives of the Austro-Hungarian, British, French, German, Italian, Roumanian, Russian, and Turkish governments, has police jurisdiction and issues regulations which have the force of law, levies imposts, and exercises other sovereign rights independently of the Roumanian Government on the waters of the Danube below Braila. The receipts for 1897 were 3,572,979 francs, including 1,946,679 francs from tolls, 59,130 francs from miscellaneous sources, 1,254,900 francs of surplus from the preceding year, and 311,270 francs from material, etc. The expenditures were 843,620 francs for administration, 605,682 francs for technical service, 228,179 francs for various charges, 702,054 francs of special expenditures for 1897, and 387,660 francs for the purchase of material, etc.; total, 2,767,195 francs, leaving a surplus of 805,784 francs. This added to the reserve and pension funds makes the total assets 2,457,070 francs, with no debts. The number of vessels, exclusive of packet boats, which passed out at the Sulina mouth of the Danube in 1897 was 1,324, of 1,397,917 tons, of which 1,093, of 1,357,731 tons, were steamers, and 231, of 40,186 tons, sailing vessels. Of the total number 540 steamers, of 854,585 tons, and 4 sailing vessels, of 892 tons, were English;

83 steamers, of 112,031 tons, and 17 sailing vessels, of 4,482 tons, were Greek; 84 steamers, of 94,693 tons were Italian; 109 steamers, of 92,964 tons, and 1 sailing vessel, of 72 tons, were Austrian; 129 steamers, of 59,206 tons, and 11 sailing vessels, of 1,545 tons, were Russian; 61 steamers, of 52,118 tons, and 19 sailing vessels, of 4,659 tons, were Roumanian; 20 steamers, of 14,274 tons, and 178 sailing vessels, of 28,398 tons, were Turkish; 27 steamers, of 32,060 tons, were French; 29 steamers, of 31,512 tons, were German; and 11 steamers, of 14,288 tons, and 1 sailing vessel, of 138 tons, were of other nationalities. The export trade in wheat amounted to 549,633 tons; in rye, 195,811 tons; in maize, 784,049 tons; in barley, 313,061 tons. When the regulation of the Danube was begun in 1856 the Sulina branch was a crooked stream, not over 9 feet deep in the shoal places, having a length of 46 miles. The worst of the windings have been abolished and the depth has been more than doubled. When the plan decided on by the commission in May, 1898, is carried out the last of the curves will disappear. This plan is to execute a cutting 5 miles long, 400 feet broad, and 20 feet deep, which, together with the former cuttings, will convert the Sulina branch into an almost straight water way 35 miles in length, extending from the port of Sulina to the Tultcha branch of the main river.

RUSSIA, an empire in northern Europe and Asia. The throne is hereditary in the dynasty of Romanoff-Holstein-Gottorp. The Government is an absolute monarchy in which legislative, executive, and judicial powers are united in the Czar, or Emperor, who is assisted by a Cabinet of ministers, each of whom has charge of an executive department; by a Council of State, which examines and passes upon projects of law submitted by the ministers; by a Ruling Senate, which watches over the general administration and superintends the judiciary; and by a Holy Synod, which directs ecclesiastical affairs. The Czar is the head of the national Russian Church, which is identical in doctrine and ritual with the Orthodox Greek, maintaining the relations of a sister Church with the patriarchates of Constantinople, Jerusalem, Antioch, and Alexandria. The reigning Emperor of All the Russias is Nicholas II, born May 18, 1868, who succeeded his father, Alexander III, Nov. 1, 1894. The heir presumptive is the Grand-Duke George, brother of the Czar, born April 27, 1871. The Committee of Ministers at the beginning of 1898 was as follows: President, J. N. Durnovo; Minister of Public Instruction, Count J. D. Delianoff; Minister of Foreign Affairs, Count Michael Muravieff; Procurator General of the Holy Synod, K. P. Pobedonostseff; Minister of War, Gen. P. S. Vannovsky; Controller General, T. J. Filippoff; Minister of the Interior, J. L. Goremkyn; Minister of the Imperial House, Appanages, and Stud, Gen. Count J. J. Vorontzoff-Dashkoff; Minister of Marine, Vice-Admiral P. P. Tyrtoff; Minister of Agriculture and Domains, A. S. Yermoloff; Minister of Justice, N. V. Muravieff; Minister of Finance, S. J. Witte, Minister of Railroads and Communications, Prince Ililkoff; without portfolios, D. M. Solsky and N. J. Stoyanovsky. The Grand-Dukes George, Vladimir, Alexis, and Michael have seats in the Cabinet. After the retirement of Gen. Vannovsky, Gen. Kurupatin was, on July 14, 1898, appointed Minister of War.

Area and Population.—The table on the next page gives the results of the census of Jan. 28, 1897, for all the governments and independent districts into which the empire is divided.

The division of population according to sex was: In European Russia, 46,433,636 males and 47,753,114 females; in Poland, 4,753,879 males and 4,688,711 females; in Finland, 1,250,426 males and 1,277,375

females; in the Caucasus, 5,129,931 males and 4,593,622 females; in Siberia, 2,959,557 males and 2,772,175 females; and in Central Asia, 4,084,900 males and 3,505,375 females; for the Russian Empire, including 4,951 male and 2,461 female Russians in Bokhara and Khiva, 64,616,280 males and 64,594,833 females. In European Russia 77,648,200 of the population lived in rural villages and 10,505,700 in towns; in Poland, 6,791,800 in the country and 1,464,700 in towns; in Finland, 2,144,913 in the country and 234,227 in towns; in the Caucasus, 6,788,011 in the country and 770,114 in towns; in Siberia, 3,968,609 in the country and 845,071 in towns; in Central Asia, 4,665,267 in the country and 651,881 in towns.

GOVERNMENTS.	Area.	Population.
Archangelensk.	331,640	347,560
Astrakhan.	91,327	1,002,316
Bessarabia.	17,619	1,336,408
Chernigoff.	20,223	2,323,007
Courland.	10,535	672,539
Don, Region of the.	63,532	2,575,818
Ekaterinoslav.	24,478	2,112,651
Estonia.	7,818	413,724
Grodno.	14,931	1,615,815
Kaluga.	11,942	1,178,835
Kasan.	24,601	2,190,075
Kieff.	19,691	3,584,453
Kostroma.	32,490	1,425,893
Kovno.	15,692	1,549,972
Kursk.	17,937	2,364,893
Kharkoff.	21,041	2,510,878
Kherson.	27,523	2,725,503
Livonia.	18,158	1,300,401
Minsk.	35,293	2,156,343
Moghilev.	18,531	1,707,618
Moscow.	12,859	2,483,366
Nijni-Novgorod.	19,797	1,608,034
Novgorod.	47,226	1,392,931
Olonetz.	57,479	866,647
Orel.	18,042	2,064,609
Orenburg.	73,816	1,608,388
Penza.	14,997	1,433,948
Perm.	123,211	3,002,655
Podolia.	16,224	3,031,040
Poltava.	19,225	2,794,756
Pskov.	17,069	1,186,580
Ryazan.	16,225	1,827,537
St. Petersburg.	20,760	2,104,511
Samara.	59,321	2,761,851
Saratoff.	32,634	2,419,766
Sibirsk.	19,110	1,560,468
Smolensk.	21,638	1,550,973
Tamboff.	25,710	2,715,365
Taurida.	24,497	1,443,835
Tver.	11,954	1,431,322
Ufa.	25,225	1,812,569
Vilna.	47,112	2,219,838
Vitebsk.	16,421	1,561,912
Vladimir.	17,440	1,502,895
Volhynia.	27,743	2,999,346
Vologda.	155,498	1,365,313
Voronezh.	25,443	2,547,320
Vyatka.	59,329	3,082,615
Yaroslavl.	13,751	1,073,598
Sea of Azoff.	14,520	.....
Russian provinces.	1,902,202	94,188,750
Kalisz.	4,392	846,334
Kielce.	3,897	764,087
Lomja.	4,667	585,781
Lublin.	6,501	1,152,682
Piotrkov.	4,729	1,406,951
Plock.	4,300	535,819
Radom.	4,769	819,781
Siedlce.	5,535	774,139
Suwalski.	4,846	604,973
Warsaw.	5,623	1,932,063
Poland.	49,159	9,442,590
Abo-Björneborg.	9,333	413,351
Kuopio.	16,499	297,120
Nyland.	4,584	258,834
St. Michael.	8,819	183,811
Tavastehus.	8,334	271,943
Uleaborg.	63,957	266,790
Viborg.	13,530	372,015
Vasa.	16,105	429,445
Lake Ladoga.	3,094	.....
Finland.	144,255	2,483,249

GOVERNMENTS.	Area.	Population.
Baku.	15,095	829,054
Daghestan.	11,322	866,959
Elizabethpol.	16,721	869,154
Erivan.	10,075	1,028,003
Kars.	7,340	307,810
Kuban.	36,441	1,919,627
Kutais.	13,966	1,144,459
Stavropol.	23,398	873,863
Tchernomorsk.	2,836	57,710
Terek.	26,822	935,700
Tiflis.	16,847	1,071,414
Caucasus.	180,843	9,723,553
Amur.	172,848	112,396
Irkutsk.	287,061	501,237
Primorskaya.	715,962	214,940
Saghalian.	29,336	25,495
Tobolsk.	539,659	1,438,655
Tomsk.	381,159	1,917,527
Transbaikalia.	236,868	669,721
Yakutsk.	1,533,397	283,954
Yeneseisk.	967,186	567,907
Siberia.	4,893,496	5,731,733
Akmolinsk.	229,609	683,721
Ferghana.	35,654	1,525,136
Samarkand.	26,627	787,736
Semipalatinsk.	184,631	688,639
Semirechensk.	152,230	990,243
Syr-Daria.	194,853	1,496,314
Transcasian territory.	214,237	382,327
Turgai.	176,219	454,078
Uralsk.	139,168	598,493
Lake Aral.	26,166	.....
Caspian sea.	169,381	.....
Central Asia.	1,548,825	7,590,375
Total Russian Empire.	8,660,394	129,166,561

Finances.—The ordinary revenue in 1896 amounted to 1,368,719,351 rubles in currency, and the expenditures for ordinary purposes, including 139,804,467 rubles paid on previous budgets, was 1,229,044,280 rubles, leaving a surplus of 139,675,071 rubles, or, including a balance of 59,278,270 rubles from previous budgets, 198,953,341 rubles. The extraordinary receipts were 43,500,457 rubles, not including 2,810,064 rubles left from previous budgets, and the extraordinary expenditure was 255,308,655 rubles. The revenue has increased in ten years 548,000,000 rubles, but of this increase 257,000,000 rubles represent the revenues from railroads purchased by the state, the interest charges and working expenses of which absorb the receipts. Increased import duties account for 85,000,000 rubles of the increase, augmented duties on spirits for 37,000,000 rubles, augmented taxes on tobacco, naphtha, sugar, and matches for 59,000,000 rubles, and increased revenue from direct taxation, state domains, etc., for the remainder.

Of the extraordinary revenue of 1896 the sum of 26,039,000 rubles came from state loans and the remainder from debts paid by railroads, perpetual deposits in the Bank of Russia, and various other sources. Of the extraordinary expenditure 132,310,000 rubles were for railroad construction and increase of rolling stock, 122,951,000 rubles for payments in the conversion of the state debt, and 48,000 rubles for payments on purchased railroads. For the five years ending with 1896 the ordinary revenue has constantly exceeded the ordinary expenditure, the total balance being 185,452,067 rubles in gold and 437,953,803 rubles in paper. The extraordinary revenue has for this period fallen short of the extraordinary expenditure by 50,443,895 rubles in gold and 367,437,109 rubles in paper, leaving still a balance of 135,008,172 rubles in gold and 70,516,694 rubles in paper. In the budget for 1898 the total ordinary revenue is estimated at 1,364,458,217 rubles, of which direct taxes produce 100,577,816 rubles; indirect taxes, 623,679,874 rubles;

the mint, mines, posts, and telegraphs, 48,529,100 rubles; sale of spirits by the state, 85,461,000 rubles; state domains and railroads, 370,127,108 rubles; sale of state domains, 593,339 rubles; redemption of land by state's peasants, 43,181,586 rubles, and by liberated serfs, 37,376,714 rubles; repayment of railroad and other loans, 57,318,227 rubles; war contributions, 2,450,000 rubles, and miscellaneous sources, 5,163,453 rubles. Of the amount raised by direct taxation 40,875,716 rubles came from land and personal taxes, 45,277,800 rubles from trade licenses, and 14,424,300 rubles from taxes on capital. The receipts from indirect taxes are specifically 260,453,000 rubles from the excise duty on spirits, 34,913,000 rubles from tobacco excise, 51,046,000 rubles from sugar, 20,782,000 rubles from naphtha, 7,015,200 rubles from matches, 169,260,000 rubles from customs duties, and 70,210,674 rubles from stamps.

An increase of nearly 22,300,000 rubles was looked for in receipts from state sales of spirits, also an increase of 31,500,000 rubles under the head of state railroads, owing to taking over more railroads from expropriated companies, while in direct taxes a falling off was expected, the land tax having been lowered on account of a short crop in 1897, which was expected to be repeated in 1898. Compared with 1897 the estimates of 1898 show an increase of 46,000,000 rubles in ordinary revenue and of 66,000,000 rubles in ordinary expenditure. The ordinary revenue in a period of ten years has exceeded the ordinary expenditure by 467,000,000 rubles.

The total ordinary expenditure for 1898 was estimated in the budget at 1,350,085,213 rubles, of which 218,675,036 rubles were for interest and redemption of state debts, 51,716,196 rubles for interest on railroad obligations, 1,701,500 rubles for discharge of unpaid arrears, 2,612,842 rubles for expenses of the superior state bodies, 20,374,941 rubles for the Holy Synod, 12,597,492 rubles for the Ministry of the Imperial House, 4,802,176 rubles for the Ministry of Foreign Affairs, 288,808,674 rubles for the Ministry of War, 67,050,000 rubles for the Ministry of the Navy, 211,118,038 rubles for the Ministry of Finance, 35,737,983 rubles for the Ministry of Agriculture and Domains, 80,175,211 rubles for the Ministry of the Interior, 26,440,843 rubles for the Ministry of Public Instruction, 264,677,232 rubles for the Ministry of Railroads, 42,733,274 rubles for the Ministry of Justice, 7,178,935 rubles for the State Control, 1,614,850 rubles for the direction of the imperial studs, and 12,000,000 rubles for unforeseen expenses. The purchase of the Vistula and Fastovo lines is the cause of an increase of 37,800,000 rubles in the expenses of operating railroads. The extension of the sale of spirits by the state is the cause of another increase in the budget, and there are increases in the naval budget of 7,100,000 rubles, in the war budget of 4,400,000 rubles, in the expenses of the Ministry of Agriculture of 2,200,000 rubles, and in the education budget of 200,000 rubles. The extraordinary expenditures for 1898 were estimated at 123,964,710 rubles, of which 84,447,020 rubles were for the Siberian Railroad, 3,718,363 rubles were for works connected with it, 13,565,182 for the construction of other railroads of general benefit, 10,000,000 rubles for local branches, 49,234,145 rubles for rolling stock for the Siberian and other railroads, and 10,000,000 rubles for expropriation of private railroads. There were 106,291,706 rubles disposable in the imperial treasury, and the perpetual deposits in the Bank of Russia gave 3,300,000 rubles in extraordinary revenue, leaving a deficit in the extraordinary budget that was exactly balanced by the estimated surplus of 14,373,004 rubles in the ordinary budget. The free balance in the treasury, which was 246,501,327 rubles on Jan. 1, 1897, was reduced by 91,795,936 rubles in that year, and by the addi-

tional drafts upon it in 1898 was brought down on Dec. 31 to 48,413,685 rubles. The state debts on Jan. 1, 1897, amounted to 2,128,826,100 rubles in gold and 3,542,137,294 rubles in paper, equal altogether to 6,735,376,443 rubles in paper or silver at the fixed ratio of 1 ruble 50 kopecks of paper or silver to 1 gold ruble. In this sum are included 621,281,634 rubles of uncovered paper currency. The total debt had been increased in ten years nearly 1,454,000,000 rubles, 27.5 per cent., by conversion operations and new loans, but the increase in the annual interest charge is less than 7,000,000 rubles. The cash in the treasury on Jan. 1, 1897, was 246,501,328 rubles, and the debts owed to the state amounted to 3,000,997,928 rubles in paper, including 1,548,692,609 paper rubles to be paid back for redemption of peasants' lands, 241,003,772 rubles in gold and 457,664,545 rubles in paper due from railroads, 133,627,835 rubles in paper due from local treasuries, the Turkish indemnity debt of 176,785,809 gold rubles, etc. The improved financial credit of Russia has enabled the Government to reduce the interest on most of the state loans. In 1898 the bonds of some of the principal land and mortgage banks were converted from 4½ or 5 per cent. to 3½ or 4 per cent. paper.

The amount of gold accumulated in the treasury and in the Bank of Russia in the middle of September, 1897, reckoned in paper, amounted to 1,181,700,000 rubles, while the total amount of paper out was 1,068,778,167 rubles. The gold reserve proper was 862,500,000 rubles in currency value, covering 80.7 per cent of the circulation. The free coinage of silver was discontinued in 1893. Regulations issued in 1897 fixed the value of the silver or paper ruble at ½ of a gold imperial. Another ukase promulgated in April, 1898, orders that all accounts must be based on this gold ruble, and that the obligatory tender of silver is not to exceed 25 rubles, though the Government will accept silver to any amount except in payment of gold customs duties, and even in this case up to the amount of 5 rubles. The silver coin in circulation, including fractional currency, will be limited to 3 rubles per capita. The Government intends to withdraw gradually the paper notes of small denominations in order to accustom the people to the use of gold. At the end of 1897 the paper in circulation had been reduced to 999,000,000 rubles, less by 122,000,000 rubles than the previous year. The total amount of the new gold currency in possession of the Government, in the State Bank, and in circulation was 1,470,500,000 rubles. The silver currency amounted to 162,000,000 rubles. During the year the amount of silver in the treasury was reduced by 10,000,000 rubles, but 49,000,000 rubles more went into circulation. Whereas only 37,000,000 rubles of gold coin were in circulation at the end of 1896, a year later the figure had risen to 155,000,000 rubles, and the holdings of the treasury had at the same time been increased by 109,000,000 rubles. Important discoveries of gold were made during 1898 in the Minusinsk district and other parts of Siberia.

The Navy.—The naval fortress of Cronstadt, flanked by the fortified ports of Wiborg, Swaaborg, and Dünamünde, is the base of the Baltic fleet, consisting of 3 first-class battle ships, 1 of the second, and 5 of the third class; 9 coast-defense vessels, and 4 third-class cruisers, with 23 gunboats and minor vessels and 44 first-class torpedo craft. The "Petropavlovsk," "Poltava," and "Sevastopol," launched in 1894, have 16-inch armor, a displacement of 10,960 tons, 4 12-inch guns mounted in turrets, with 6 6-inch and 18 small quick-firers, and engines of 10,600 horse power, giving a speed of 17½ knots. There are building the "Oslyabya"

and "Peresvyet," of 12,694 tons, to be fitted with 14,400 horse engines, and to carry 4 10-inch guns, with 6 6-inch, 6 4.7-inch, and 30 small quick-firers. Another new ship will have a displacement of 11,000 tons. The "Sissoi Veliky," launched in 1894, the "Rotislav," launched in 1896, and a new ship now building are powerful turret ships of 8,880 tons, with 16-inch armor plates, 4 12-inch guns, 12 6-inch and 18 small quick-firers, and 8,500 horse power engines, making 16 knots. Besides the three great battle ships mentioned above, there are building for the Baltic fleet 3 first-class cruisers and 24 torpedo boats of the largest size.

In the Black Sea the barrette ships "Tchesme," "Ekaterina II," and "Sinope," launched in 1886 and 1887, have a displacement of 10,180 tons, compound armor plating 18 inches in thickness, and 2 56-ton disappearing guns coupled in barbettes at each angle of the triangular citadel, with 7 6-inch and 14 smaller quick-firing guns. These were followed by the "Dvenadzat Apostoloff," of 8,076 tons, carrying four of the great guns, and in 1892 by the "Georgi Pobiedonozet," of 10,300 tons, which has the 6 12-inch guns and 7 6-inch quick-firers, with 24 smaller ones, which was further improved in the "Tri Sviatitelia," launched in 1893, having, like its predecessor, a belt of 16-inch armor, but displacing 12,480 tons, permitting an armament of 4 12-inch guns, 8 6-inch quick-firers, 4 of 4.7-inch bore, and 52 small ones, with the same steam power, 10,600-horse, giving a speed of 16 instead of 16½ knots.

The "Vladimir Monomach," of 5,700 tons, launched in 1882, and the "Dmitri Donskoi," launched in 1883, having a somewhat lighter armament and with the same engines, 7,000 horse, making 16½ knots instead of 15, were the earliest of the Russian belted cruisers. The "Admiral Nachimoff," of 7,700 tons, which was launched in 1885, made better speed with a more powerful armament. The "Pamiat Azova," of 6,000 tons, launched in 1888, carries an 8-inch gun in a barrette on each broadside, with a quick-firing battery of 13 6-inch and 17 smaller guns, and with 8,000 horse engines, can speed nearly 19 knots. The "Rurik," launched in 1892, having a displacement of 10,933 tons, with engines of 13,250 horse power, has a very strong armament, consisting of 4 8-inch, 16 6-inch, 6 4.7-inch quick-firing and 8 smaller guns, can steam 18 knots, and, with a coal capacity of 2,000 tons, has a cruising radius of 20,000 miles at a mean speed of 10 knots. More powerful is the cruiser "Rossia," displacing 12,300 tons, with engines of 18,000 horse power, giving a speed of 18 knots, and an armament of 4 8-inch, 24 6-inch, 6 4.7-inch quick-firing, and nearly 40 smaller guns. Another cruiser, now building, is an improvement on this last vessel, having 14,000 tons displacement. The "Gromoboi" has about the same dimensions as the "Rossia." The "Oushakoff," "Seniavin," and "Apraxin," built for coast defense, are strongly armed cruisers of good speed. Two new cruisers, the "Diana" and "Pallada," have a displacement of 6,500 tons, engines of 11,610 horse power, and an armament of 6 6-inch, 6 4.7-inch, and 35 smaller guns, all quick-firers. These vessels were launched in the autumn of 1898, also the battle ship "Oslyabya." Her sister ship, the "Peresviet," was launched on the Neva on May 19. The "Aurora," a sister to the "Diana," has been begun. New docks at Sebastopol were completed in May. An armored cruiser of 8,000 tons was ordered to be built in the new shipyard at Nikolaieff, where a new battle ship, the "Prince Potemkin Tavrichesky," a counterpart of the "Three Saints" is being built. The Government gave orders abroad for two more ships of the type of the "Oslyabya," each of 13,000 tons, as well as for a cruiser of the "Aurora" type and one like the "Svetlana," and also four tor-

pedo-boat destroyers. A shipbuilding yard is to be established by the Government at Sebastopol for the express purpose of building torpedo boats and destroyers. Of the existing battle ships, the "Peter Veliky" was launched in 1872, the "Alexander II" in 1887, the "Nicolas I" in 1889, the "Navarin" in 1891, the "Sissoi Veliky," "Petropavlovsk," and "Poltava" in 1894, the "Sevastopol" in 1895, and the "Perisviet" and "Oslyabya" in 1898. There are 11 armored cruisers of the first class, of which the "Knyaz Pojarski" was launched in 1867, the "General Admiral" in 1873, the "Minin" in 1874, the "Guerzog Edinburgsky" in 1875, the "Vladimir Monomach" in 1883, the "Dmitri Donskoi" in 1883, the "Admiral Nakhimoff" in 1885, the "Pamiat Azova" in 1888, the "Rurik" in 1892, the "Rossia" in 1896, and the "Gromoboi" in 1898. Of the three first-class protected cruisers, the "Admiral Korniloff" was launched in 1887, and the "Diana" and "Pallada" in 1898. The navy now has 44 torpedo craft of the first class, and 81 of the second class. The vessels under construction in the spring of 1898 included 6 first-class battle ships, 1 of the second class, 1 large armored cruiser, 1 iron-clad for coast defense, 4 smaller protected cruisers, 3 gunboats, about 20 destroyers, and a first-class torpedo boat. The Minister of Marine, Admiral Tyrtoff, has elaborated a new naval programme for which he asked for 200,000,000 rubles. The sum of 90,000,000 rubles was finally granted, to be spread over the seven years from 1898 to 1905. It was decided to build 3 new battle ships of the "Oslyabya" type, of 12,675 tons each. These will be armed with 4 improved 10-inch guns of 40 calibers. There are 12 new destroyers, repetitions of the famous English-built "Sokol," under construction for service at Vladivostok and Port Arthur. Contracts were made in the United States for the construction of two or three large battle ships, of 13,000 tons, to be armed with 12-inch guns. Several torpedo-boat destroyers were also ordered in Philadelphia.

Commerce and Production.—The exports from the Russian empire for 1898 amounted to \$389,557,000; from European Russia alone, \$373,634,000. The imports of the whole empire were \$367,822,000; of European Russia, \$339,571,000. The exports increased 5 per cent. over those of the previous year, while the imports decreased in a like proportion. The increase in the value of exports was due chiefly to the rise in grain prices in the autumn 10 per cent. over those of the previous year, though the grain exports were 3 per cent. less. The exports of maize were nearly two thirds greater, and those of barley were larger. The exports of flax, hemp, and codilla were \$35,556,000, nearly a fifth less, owing to a fall in prices. The exports of mineral oil fell on account of American competition and greater demand at home. The exports of sugar declined by one half by reason of increased home consumption. The exports of timber, mainly to England, amounted nearly to \$30,000,000. The exports of eggs, which increase year by year, were valued at over \$13,750,000. Butter, wool, hides, furs, and manganese ore were exported in increased quantities. The increasing exports of manufactured goods are noticeable in every class, especially in cotton goods and iron manufactures. As regards imports, there was a larger demand for fibers, especially raw cotton, jute, and silk. The imports of cotton came more by sea on account of the fall in price and a temporary difficulty in getting it from central Asia. The imports of cast and wrought iron and steel increased in spite of the heavy customs duties, reaching nearly \$22,500,000. There was a considerable decrease in tea imports. Imports of chemical products decreased on account of the development of native production. Heavy metallic goods and machinery also decreased, al-

though certain classes of machinery, such as spinning, agricultural, and electric machines, were imported in greater quantities. Many orders for railroad locomotives, electric plant, and other machinery, which formerly was supplied by Great Britain, went to the United States and Germany. There was an increase in imports of coal and coke. The exports to France, Holland, Egypt, China, and British India increased, also those to Austria-Hungary, which were 30 per cent. more, and those to Belgium, which gained 40 per cent., and to Roumania, the increase being as much as 43 per cent. There was a marked decrease in the exports to Turkey. Those to Great Britain declined in a like proportion, owing to decreased exports of grain, flax, hemp, and oil seeds; those to Italy also, on account of the curtailed supply of sugar; and those to Germany, which were checked by the German law prohibiting time bargains in grain.

When 350,000,000 acres of land were transferred to the emancipated serfs it was expected that agriculture would develop enormously, for the peasants were provided not only with their freedom but land enough to supply their wants, and the landowners received needed capital in compensation for the land sufficient to make the remainder of their estates more productive than the whole had been. The enormous amount of floating capital and of labor set free by these changes drifted, however, into an unexpected course, and the result has been the development of industrial, mining, and commercial undertakings, while agriculture has made scarcely any progress, and the population, which increases at the rate of 1,000,000 a year, finds it harder to live on the land. The landowners are poorer and less enterprising than in the times of serfdom, and the peasantry, lacking horses to till their own land or that of the landowners, unable to meet the payments for land redemption on account of the decline in the prices of grain, with agricultural wages also declining, are falling into deeper poverty than they have ever known. At the same time the increase in savings-bank deposits, which has been greatest in years of agricultural depression, shows that the country as a whole is growing richer; that industrial enterprise, favored by the very banks that were created to facilitate the redemption of peasants' lands, is increasing at the expense of agriculture. The conditions for mining and manufacturing industries are indeed favorable, for there is an unlimited supply of labor to be had at wages much below those paid in any other European country. Russian statisticians calculate that, even with the primitive appliances now in use, all the agricultural labor of the country can be performed in 5,000,000,000 working days, which represents only half of the available labor of the country. With the dense population of Europe on one side and that of China at the other end of the empire, the economists and statesmen of Russia expect an immense impetus to Russian industry when the great arterial railroad through Siberia is completed. For eighteen years past the Government has directed every effort to the development of native industries as the remedy for the poverty and distress that weigh upon many millions of the Russian people. During sixteen years the production of pig iron in Russia has nearly quadrupled, that of manufactured iron has increased 80 per cent., and that of steel has more than doubled. The textile, engineering, electrical, and other works at St. Petersburg, where the fuel is wood from the neighboring forests, continually growing scarcer, the mines of the Ural, and the iron mills and manufactories of all kinds established in southern Russia within communication with the Donetz coal basin, have been developed largely with French and Belgian capital, of which more than

\$500,000,000 is said to have been brought into Russia within ten years and to be earning an average of not less than 15 per cent. interest. The beet-sugar factories, of which there were 238, in 1898 produced 754,758 tons of sugar. There were 869,881 acres planted to sugar beets in 1897. The export of sugar increased from 55,000 tons in 1887 to 117,000 tons in 1897.

In 1898 Kazan, Nijni-Novgorod, Vyatka, Perm, Simbirsk, and Samara, usually fertile provinces in the Volga region, suffered a repetition of the crop failure of 1897, and the famishing peasantry had to be fed by means of Government aid and private charity. In the previous winter a large proportion of the peasantry in 19 large provinces in southern and southeastern Russia were only rescued from starvation by the distribution of flour by the Government. In the spring acute distress prevailed in Voronezh, Kaluga, Kursk, Orloff, Riazan, Tamboff, and Tula, the reserve stores of grain having been exhausted. Siberian grain was brought forward by the new railroad and exported to Austria and Germany, but there were not cars enough to transport the stocks accumulated along the railroad nor ships enough to carry the wheat that could be shipped from the ports of the Kara Sea. To facilitate trade over the northern sea route the Russian Government has granted exemption of duty for salt, coal, agricultural, gold-mining and other machinery, and materials for the fishing industry imported at the mouths of the Ob and Yenesei. English vessels have been engaged in this commerce since the route was explored by Capt. Wiggins, and a German company has been formed at Hamburg to engage in the Siberian trade. To open up the Siberian country and relieve the congested parts of central and southern Russia the Government has encouraged the migration of peasants, though at one time the rush was so great that it had to be held in check. Cosacks and time-expired soldiers have been settled at the cost of the Government in the Amur region for military as well as colonization purposes. In the summer of 1898 the Government transported 200,000 peasant families to the wheat belt of central Siberia and gave 40 acres of land to each, together with agricultural implements and employment on the railroad. The railroad, with its eastern termini at Port Arthur and Vladivostok, will by means of the existing lines through European Russia to Moscow and St. Petersburg, have direct communication with a new ice-free port that is being constructed on the northern coast near the Norwegian frontier at Ekaterine Harbor in the Bay of Kola.

Railroads.—The length of railroads in operation on Sept. 1, 1898, was 26,060 miles, and the length under construction was 7,520 miles, not counting the railroads of Finland, which had a total length of 1,535 miles. A large number of branches and feeders of the Russian trunk lines and the new Siberian Railroad are in progress or about to be begun. For four of these, loans to the amount of 234,325,000 German marks, with interest at 4 per cent. guaranteed by the Government, were raised in Berlin during the summer of 1898. In 1897 no less than 1,860 miles of new railroads were opened. Several strategic railroads have been built in the Caucasus. The Murghab section of the Transcaspian Railroad, running from Merv to the Afghan frontier, was pushed to completion. The Siberian Railroad at the beginning of the year was open as far as Krasnovarsk and laid to within less than 200 miles of Irkutsk. Rails for the Manchurian Railroad were ordered from the United States, and also locomotives. This branch was to be completed within six years and the remaining parts of the Siberian line within four years. The rate of building has been about 450 miles a year. When opened to Irkutsk in

the autumn of 1898 the completed part had a length of 3,230 miles. Before the end of the year the rails were laid 40 miles further to the west shore of Lake Baikal at Lisvenitchaia, whence the cars will have to be transported by boat about 40 miles to the other side of the lake. The chief engineering difficulties were found east of Irkutsk, where there were still 1,600 miles to be built before reaching the Pacific. The work was carried on from both ends. On the Siberian line only Russian materials and native laborers were employed. The journey from Irkutsk to Moscow now occupies nearly twelve days. The traffic over the completed parts of the line has been much greater than was anticipated. The Siberian Railroad, though the journey begins at Moscow, starts from Cheliabinsk, 160 miles east of the frontier between Siberia and Russia proper. The original route from Cheliabinsk to Vladivostok was 4,740 miles, but the short cut through Manchuria has greatly reduced the distance. Throughout the summer and autumn of 1898 the rails were put down at the rate of 4 miles a day. The railroad is a single track with a siding every 4 miles and one at each of the stations, leaving the main line always free for through traffic. The stations, which are 15 or 20 miles apart, are well built of brick or stone and well equipped. The railroad that is being built through Manchuria to Port Arthur (see CHINA) will make this port on the China Sea the earliest and the principal eastern terminus of the line, rather than Vladivostok. As a consequence the original plan was changed, even the second plan was amended, and the new scheme is being reconsidered in favor of a more direct route to Port Arthur.

Posts and Telegraphs.—The post office in 1896 carried 242,306,000 internal and 31,684,000 foreign letters, 47,376,000 internal and 6,535,000 external postal cards, 221,842,000 internal and 22,619,000 external newspapers and circulars, and 17,052,000 internal money letters of the declared value of 20,119,289,000 francs and 521,000 foreign ones of the value of 890,468,000 francs. The telegraphs had in 1896 a total length of 83,386 miles, with 168,068 miles of wire. There were 12,364,338 internal messages in 1896, 1,012,449 sent abroad, 1,080,595 received from abroad, 185,247 in transit, and 1,000,129 connected with the service; total, 15,592,758. The receipts were 56,903,224 francs; the expenses of posts and telegraphs together, 121,945,008 francs; receipts of the post office, 169,825,304 francs.

The Spirit Monopoly.—The Government monopoly of the liquor trade, which was introduced first in 1895 into the provinces of Perm, Ufa, Orenberg, and Samara, in the following year into nine more provinces, and in 1897 into seven more, was on Jan. 1, 1898, extended to Poland and five more provinces, including St. Petersburg, so that it is now in operation in about half of European Russia. The primary object was to put an end to the grievous influence of the retailers of spirits on the moral or economic condition of the people. No compensation was given to the retailers who were not employed under the new system, but some was given to communities and municipalities whose revenues suffered. The Government expected no increase of revenue except such as might result from the cessation of abuses and the improvement in the general economic condition of the people. Spirits of a deleterious character are not sold at all. The manufacture still remains in the hands of private persons, but no distillery is allowed to produce more than its greatest production during one of the three years preceding the establishment of the monopoly in the district, and no new distillery is to be erected nor any old one reopened without the consent of the Government. It was expected that the system would aid the small agricultural distiller and place

him on an equal footing with the great industrial distiller. The monopoly does not extend to beer or wine. The amount of spirits required in each district is fixed by the Minister of Finance, and two thirds of this quantity is furnished by local distilleries at a fixed price, while the remaining third is acquired by contract. Spirits required by manufacturers of liquors must be purchased from the Government, which makes itself responsible for proper rectification and permits no sales of unrectified spirits. The rectification is done in Government establishments, whence the spirits are issued for sale to the dealers. They are issued in bottles of different sizes, with the quantity, strength, and price marked on the labels. The prices must not be increased, the only interest of the seller being a small commission that he receives from the Government. With few exceptions, the bottles must not be opened on the premises. The reports from the provinces where the system was first tried were satisfactory. There has been a marked decrease of drunkenness, and the Government incidentally made considerable profits. In St. Petersburg the system has encountered much opposition on account of the large number of persons thrown out of employment.

Proposal for the Reduction of Armaments.

—On Aug. 24 the Minister of Foreign Affairs, by order of the Emperor, communicated to the foreign ambassadors a proposal for an international conference on the preservation of peace and partial disarmament in the following document:

"The maintenance of universal peace and a possible reduction of the excessive armaments which weigh upon all nations in the present condition of affairs all over the world represent the ideal aims toward which the efforts of all governments should be directed.

"This is the view which fully corresponds with the humanitarian and magnanimous intentions of his Majesty the Emperor, my august master.

"Being convinced that this high aim agrees with the most essential interests and legitimate requirements of all the powers, the Imperial Government considers the present moment a very favorable one for seeking by way of international discussion the most effective means of assuring for all peoples the blessings of real and lasting peace, and above all things for fixing a limit to the progressive development of present armaments.

"During the last twenty years aspirations toward general pacification have grown particularly strong in the consciences of civilized nations. The preservation of peace has been made the aim of international policy; for the sake of peace the great powers have formed powerful alliances, and for the purpose of establishing a better guarantee of peace they have developed their military forces in an unprecedented degree and continue to develop them in spite of every sacrifice.

"All these efforts, however, have not yet led to the beneficent results of the desired pacification. The ever-increasing financial burdens attack public prosperity at its very roots. The physical and intellectual strength of the people, labor and capital, are diverted for the greater part from their natural application and wasted unproductively. Hundreds of millions are spent to obtain frightful weapons of destruction which, while being regarded to-day as the latest inventions of science, are destined tomorrow to be rendered obsolete by some new discovery. National culture, economical progress, and the production of wealth are either paralyzed or turned into false channels of development.

"Therefore, the more the armaments of each power increase the less they answer to the purposes and intentions of the governments. Economic disturbances are caused in great measure by this sys-

tem of extraordinary armaments, and the danger lying in this accumulation of war material renders the armed peace of to-day a crushing burden more and more difficult for the nations to bear. Evidently, therefore, if this situation be prolonged, it will certainly lead to that very disaster which it is desired to avoid and the horrors of which strike the human mind with terror in anticipation.

"It is the supreme duty, therefore, at the present moment of all states to put some limit to these unceasing armaments and to find means of averting the calamities which threaten the whole world. Impressed by this feeling, his Majesty the Emperor has been pleased to command me to propose to all governments accredited to the imperial court the meeting of a conference to discuss this grave problem. Such a conference, with God's help, would be a happy augury for the opening century. It would powerfully concentrate the efforts of all states which sincerely wish to see the triumph of the grand idea of universal peace over the elements of trouble and discord. It would, at the same time, bind their agreement by the principles of law and equity which support the security of states and the welfare of peoples."

All the small states accepted the Czar's proposal at once. Italy, Germany, Great Britain, France and Austria also acquiesced, and the United States accepted and promised to send a delegate.

Revolt in Central Asia.—After Gen. Kurnpatkin was recalled from Asia to assume the duties of the Minister of War in the early part of 1898, he was succeeded as governor general by Gen. Poozerofsky, whose administration was over the whole of Russian Turkestan as well as the Transcaspian territory. On May 18 the Russian military camp at

Andijan, in the northeast of the province of Ferghana, was attacked by a body of 1,000 fanatical Moslems, led by the mullah Ishan Mohammed Ali Khalif, from Marghilan, who cut the telegraph wires and proclaimed a holy war. There were 163 soldiers encamped at Andijan, to which place the railroad from Samarkand had just been completed. After 22 had been killed and 16 wounded the rebels were repelled, leaving 11 killed and 8 wounded. They scattered, but the leader was followed and eventually captured.

The people of Ferghana, after the original conquest of Khokand, showed at first extreme aversion to Russian rule, but finding it just and beneficial they became reconciled to it. Later abuses crept in and the people suffered under corrupt native administrators, causing an increase of brigandage and a revival of the first feelings of hatred. The native mullahs became disaffected when their immunity from taxation was canceled. Fanatics from India worked on the religious feelings of the inhabitants, preaching a holy war. In 1896 and 1897 organized bands murdered officials and otherwise disturbed the province. The rising at Andijan was part of a concerted movement embracing the whole of Ferghana, but it was premature. Gen. Paul Schweikofsky, the military governor of Ferghana, was peremptorily dismissed for not being prepared for the outbreak. The minor state of siege was proclaimed in Marghilan, Andijan, Khokand, Samarkand and Osho. Native officials were deprived of administrative and police functions. Of 522 persons who were arrested, 6 were promptly hanged, including Mohammed Ali Khan, and 880 were condemned to death by court-martial, but of these 362 were reprieved and sent to the Siberian penal settlements.

S

SALVADOR, a republic in Central America. The National Assembly is a single Chamber of 42 members elected for each annual session by universal male suffrage. The President, who is elected for four years by the vote of the nation, is Gen. Rafael Antonio Gutierrez, inaugurated March 1, 1895. The Vice-President is Dr. Prudencio Alfaro. The Cabinet in the beginning of 1898 was composed as follows: Minister of the Interior, Dr. Prudencio Alfaro; Minister of War and Marine, Dr. Juan F. Castro; Minister of Charities and Public Instruction, Dr. Carlos Bonilla; Minister of Finance, Public Works, Public Credit, and Justice, Dr. Antonio Ruiz. The direction of foreign affairs was delegated to the Diet of the Greater Republic of Central America, constituted on Sept. 15, 1896, by a treaty between Salvador, Honduras, and Nicaragua, which provided that the Diet of 9 delegates should sit by turns at the respective capitals, first at San Salvador in 1897, and should direct the foreign relations and common affairs of the federated republics, each of which retained its internal autonomy and independence. The president of the Diet for 1898 was Dr. Rafael Reyes, of Salvador.

Area and Population.—Salvador, with an area of 7,325 square miles, had at the beginning of 1894, according to an official estimate, 803,534 inhabitants. San Salvador, the capital, has about 50,000. Education is gratuitous and obligatory. The army numbers about 4,000 men, and the militia 18,000.

Rebellion.—The constituent assembly for the organization of the United States of Central America adopted a constitution which entered into force on Nov. 1, 1898. A council of government, formed

of three delegates of the Diet, one from each republic, assembling at Amapala on that date, assumed the government of the federation provisionally until the inauguration of a president on March 15, 1899. The President was to be elected directly by the people of the three republics for four years. Endowed with the supreme executive power, he was to be commander-in-chief of the military and naval forces. The candidate for the presidency was J. Rosa Pacose, of Salvador. In the mean time the presidents of the three republics were to assume the grade of governor, and in Salvador a new governor was to be elected in November to succeed President Gutierrez. The principal aspirants to this office were Gen. Tomas Regalado, Horacio Villevicencia, and Carlos Melendez. The first named represented the sentiment opposed to the union of the republics, which was very strong among the Salvadorians because the chief part of the financial burden would fall on them. While the delegates of the Diet were perfecting the arrangements for the institution of the Federal Government the anti-unionists of Salvador took up arms to resist the change, and Gen. Regalado headed the insurrection. There was no force in the country strong enough to master the rebellion, and when the Honduran troops marched in they were compelled to retire. President Zelaya, of Nicaragua, refused to meddle. Before the end of November all the departments submitted to the Provisional Government established by Tomas Regalado. After this check to the Federal movement the organizers of the federation discontinued their efforts for the present and declared that the respective republics had resumed all their sovereign rights. (See HONDURAS.)

SAMOA, a kingdom occupying the Samoan Islands in the South Pacific Ocean, of which the independence and neutrality were guaranteed by the act of the Samoan conference signed at Berlin on June 14, 1889, by representatives of Germany, Great Britain, and the United States. The reigning King is Mataafa, elected to succeed Malietoa Laupepa, who died on Aug. 22, 1898. The chief justice is William Chambers. The president of the municipal council is Dr. Raffel.

The kingdom comprises fourteen volcanic islands, having a total area of 1,701 square miles, with 35,565 inhabitants in 1897, native Christians of the Polynesian race. The white residents number about 450. There are 800 or more laborers from other islands working on the plantations. A commission has confirmed the titles of Germans to 75,000, of British to 36,000, and of Americans to 21,000 acres. The foreigners pay nearly all the taxes, as the native poll tax of \$1 a head never has been collected except from the adherents of Malietoa in Tuamasanga, the middle part of Upolu. The principal article of export is copra, of which 5,606 tons were shipped during 1896. Cotton, coffee, and fruit are also exported, and plantations of cacao have been made. The total revenue in 1897 was \$27,705, of which \$17,426 came from import duties, \$4,160 from export duties, \$2,006 from state taxes, and \$4,113 from municipal taxes. The imports in 1897 amounted to \$346,111, in which the share of the Germans was \$186,938, of the English \$54,328, of the Americans \$55,189, and of others \$49,656. The total value of the exports was \$251,158, of which the German share was \$227,504, of the English \$8,801, of the Americans \$8,412, and of others \$6,433. In 1897 58 steamers, of 76,369 tons, and 22 sailing vessels, of 5,367 tons, called at Apia.

Political Affairs.—The Samoan problem entered on a new phase when Malietoa died. The treaty provided for the election of his successor according to the laws and customs of Samoa. The loyal Samoans who paid taxes were far less numerous than the rebels of Aana, Atua, Manono, and Savaii, who had twice taken up arms against the Government. If these hostile tribes were allowed to vote the result would be the election of one of the rebel chiefs, Tamasese or Mataafa, and the possible oppression of the loyal Tuamasanga. The Germans, who had befriended these rebel candidates in previous struggles, considered the moment opportune, when civil war was again threatened by rival claimants for the throne, to urge the revision of the treaty. If they could not obtain the sole protectorate for Germany, they desired a partition of the islands, giving to them Upolu, to the English Savaii, and to the Americans Tutuila. The American Government took steps to occupy Pago Pago harbor, which it obtained for a naval station by the treaty of 1878. When the American chief justice of Samoa decided in favor of extending the municipal boundaries of Apia, upholding the action of the municipal council against the appeal of some Germans whose property would become subject to taxation, the German Government protested that the chief justice had exceeded his powers. The reply of the United States conceded that a strict interpretation of the treaty gave him no authority in the matter, but pointed to a precedent established by a former chief justice nominated by Germany, and suggested a modification of the treaty providing for such contingencies. Germany would not consent to a modification of the treaty except by a conference authorized to make a complete revision. Until the election of a new king, which did not take place till December, the Government was administered by a commission composed of the American, British, and German consuls, with the chief

justice as president. There was a dispute over the election that nearly resulted in violent disturbances, when Mataafa's followers took up a warlike attitude. Plans for a United States coaling station at Pago Pago were prepared by Commander R. B. Bradford and Civil Engineer M. T. Endicott. The chief justice finally decided the question of the royal succession in favor of Malietoa Tanu. Mataafa, who was declared ineligible, contested this decision and prepared to enforce his claims with arms, being supported by the German president of the municipality of Apia.

SAMPSON, WILLIAM THOMAS, an American naval officer, born in Palmyra, Wayne County, N. Y., Feb. 9, 1840. He was born on what is known as the Mormon Hill farm, on which property Joseph Smith made the excavation which, according to his statement, resulted in the discovery of the golden plates of the Book of Mormon. His father was engaged in agricultural pursuits, and the boy's early education was principally gained in the country schools of Wayne County. As a youth he was bright and promising. When he was in his seventeenth year, Representative Morgan, of New York State, nominated him for a cadetship in the Naval Academy at Annapolis. Young Sampson entered upon his studies at the academy on Sept. 24, 1857, proved an apt scholar, and was graduated at the head of his class in 1861. Almost immediately, as midshipman, he was ordered to the frigate "Potomac" and he proved so proficient and



WILLIAM THOMAS SAMPSON.

attentive that his first promotion, as master, was accorded before the close of the year. His subsequent service in the navy furnishes a record of unswerving devotion to duty. His talents and exemplary conduct have from time to time received full recognition at the hands of his official superiors.

The second step in his advancement was reached on July 16, 1862, when he was made a lieutenant. In 1862-'63 he was ordered to service in the practice sloop "John Adams," and in the following year he was stationed at the Naval Academy as an instructor. Next he was appointed to the ironclad "Pataasco," one of the South Atlantic blockading squadron doing duty before Charleston in 1864. Lieut. Sampson was on that vessel when she was destroyed in the harbor of Charleston, January, 1865. His next experience was on board the flagship "Colorado" of the European squadron, from 1865 to 1867. During this tour of service, on July 25, 1866, he was promoted to be lieutenant commander. From 1868 to 1871 he was again at the

Naval Academy as an instructor. A year later he was ordered to the "Congress," on special duty, and, in 1873, he served a second time on the European station. In 1874-'75, he commanded the "Alert," receiving his promotion as commander on Aug. 9, 1874. A third term of duty as instructor at the Naval Academy was performed from 1876 to 1878. Shortly after the completion of this task he was given command of the "Swatara" of the Asiatic squadron, and then came a term of three years (1882-'85) in office as assistant superintendent of the United States Naval Observatory.

In 1886 Commander Sampson, who had assumed charge of torpedo stations, was appointed a member of the board to report upon necessary fortifications and other defenses for the coast. Prior to this he had been chosen as a member of the international conference held in Washington for the purpose of fixing a prime meridian and a universal day. The implicit confidence of the naval authorities in Commander Sampson's ability and tact was well illustrated in 1886, when, for the fourth time, he was ordered to Annapolis, on this occasion as superintendent. That he fully justified the selection is evident from the fact that his rule at the academy continued undisturbed for four years. In the meantime (in 1889) he served as delegate from the United States to the International Maritime Conference held in Washington. His promotion to the rank of captain took place in March, 1889. On Nov. 15, 1890, the new cruiser "San Francisco" was placed in commission, and Capt. Sampson was selected to take charge of that vessel during a tour of duty on the Pacific coast. He then assumed the place (1893-'97) of chief of the Bureau of Ordnance. On June 16, 1897, the first-class battle ship "Iowa" was placed in commission, and Capt. Sampson was chosen to command her. At that time the "Iowa" was deemed the most formidable vessel in the United States navy.

In February, 1898, when the destruction of the "Maine" in the harbor of Havana was made known, President McKinley, in ordering a board of inquiry to ascertain the cause of the disaster, named Capt. Sampson as presiding officer. After war was declared with Spain, Capt. Sampson was ordered to command the North Atlantic squadron, with the rank of acting rear admiral, and the "New York" was selected as his flagship. His command included the squadrons of Commodores Schley and Watson, as well as that under his own immediate orders. He took the command from Rear-Admiral Sicard, who was relieved on account of failing health. When he attained the rank of acting rear admiral, Capt. Sampson passed over the heads of ten officers previously his seniors, all commodores.

His record since his appointment to this responsible post is well known. Public opinion is apparently divided as to the exact share taken by Admiral Sampson in the destruction of Admiral Cervera's fleet at Santiago, but no question ever has been raised, in the navy or out of it, as to his ability to meet any emergency within the limits of his professional duties. For his services in connection with the war with Spain, Admiral Sampson has received the thanks of the President. Owing to a dispute in Congress between his friends in that body and the friends of Rear-Admiral Schley, concerning certain events connected with the naval campaign in Cuba, his promotion was held over when the last session adjourned, but since that time his merits have been passed upon by a board of naval officers, and he has been reported as fully qualified for promotion.

It has been said of Admiral Sampson that, if necessary, he can build, from beginning to end, any naval weapon of warfare now in use. He is also

sufficiently equipped in technical knowledge to repair any engine or electrical device used in the navy. Admiral Sampson is married, and has two sons and four daughters.

SANTIAGO DE CUBA, SOCIETY OF THE ARMY OF, an organization formed in October, 1898, somewhat resembling the Grand Army of the Republic, which was founded after the civil war. The purpose of the society is to record the history and conserve the memory of the campaign that resulted in the surrender, July 17, 1898, of the Spanish army and of the city and province of Santiago de Cuba. The membership consists of all officers and soldiers of the United States army (including acting assistant surgeons and authorized volunteer aids) who constituted the expeditionary force to Santiago who worthily participated in the campaign between June 14 and July 17, 1898, and who apply for membership and pay the annual dues of \$3. There are three classes of members: First, original; second, by inheritance, consisting of lineal descendants of original members; third, by succession, consisting of blood relatives of members of the first or second class to whom, in the absence of lineal descendants, the right of inheritance to one membership may be devised by descendant members. The officers are a president, four vice-presidents, a secretary and treasurer, an historian, a registrar general (who may have four division registrars to assist him), and a council. The council consists of ten members, together with the officers and all ex-presidents, the latter having all the privileges of regular members of the council. The officers are to be elected annually. The council acts as an advisory body, passes upon applications for membership, has the financial control, and may call meetings of the society. The president may at his discretion, and shall at the request of five members of the council, call a meeting of the council. Local branches may be formed with the prior approval of the council. A suitable medal and insignia for the officers and members are to be provided. The constitution may be changed by a two-thirds vote of the membership, and the by-laws by a three-fourths vote of the council. The officers elected at the organization were: President, Major-Gen. William R. Shafter; first vice-president, Major-Gen. Joseph Wheeler; secretary and treasurer, Major Alfred C. Sharp; registrar general, Major Philip Reade; historian, Major-Gen. Creighton Webb.

SANTO DOMINGO, a republic in the West Indies, occupying the former Spanish colony in the eastern part of the island of Hayti, first established in 1844 and restored after two years' occupation by the Spanish troops in 1865. The Congress is a single Chamber of 24 members, elected by direct qualified suffrage for two years. The President, who is elected by an electoral college for four years, is for the term ending in 1900 Gen. Ulisses Heureaux. The Vice-President is Gen. Wenceslao Figuereo. The Cabinet was composed in the beginning of 1898 as follows: Secretary of the Interior and Police, Gen. J. D. R. Betancourt; Secretary of Foreign Affairs, Enrique Henriquez; Secretary of Justice and Public Instruction, S. E. Valverde; Secretary of Fomento and Public Works, Gen. T. Cordero; Secretary of Finance and Commerce, J. Alvarez; Secretary of War and Marine, Gen. T. D. Morales.

The export of sugar in 1895 was 2,390,960,000 pounds; of coffee, 4,106,000 pounds; of cacao, 8,762,000 pounds; of tobacco, 6,634,000 pounds; of molasses, 621,492 gallons; of honey, 28,492 gallons; of wax, 321,495 pounds; of orange peel, 80,000 pounds; of skins, 17,206; of bananas, 87,255 bunches; of divi-divi, 2,606,000 pounds; of logwood, 17,358 tons; of cedar, 115,325 tons; of mahogany, 14,-

558 feet, besides 352,670 pieces of timber. The exports of coffee, cacao, and tobacco go to Europe; those of sugar, logwood, lignum vitae, mahogany, honey, wax, hides, and bananas to the United States. The imports from the United States are flour, lumber, kerosene, salt meat and fish, canned provisions, dairy products, coal, also machinery and hardware, in competition with England, Germany, and Belgium, and cotton goods in competition with England. Trade has suffered a severe depression, owing to the decline in the prices of sugar and coffee, the unstable paper and silver currency, and high duties on imports and exports. In August, 1897, all customs duties were increased 3 per cent., and on April 1, 1898, they were raised 10 per cent. The export duty on sugar amounts to 25 cents a quintal. Many sugar estates are involved in financial difficulties. The production of other things is increasing and the quality of the products improving. The development has been greatest along the line of the railroad opened in 1887 between La Vega and Samana Bay, a distance of 60 miles. Another line, built by American engineers, which connects the capital with Puerto Plata, on the north coast, was completed in 1898. It is 45 miles long, crossing two ranges of mountains, and affords an outlet to some of the richest coffee and cacao lands on the island. Immigration is encouraged by the authorities, and has been large during the disturbances in Cuba. The cultivation of bananas is extending rapidly, and much American capital is being invested. The public revenues are collected by an American corporation, the San Domingo Improvement Company. The value of the sugar exported during 1898 was \$2,463,906, all of it to New York. The total imports of Dominican products into the United States during 1897 were \$2,369,424, and the exports from the United States to Santo Domingo were \$1,098,635 in value. The number of vessels engaged in foreign trade entered during 1897 was 344, of 364,609 tons, and of these 142, of 183,130 tons, were American.

Attempted Rebellion.—Taking advantage of the popular discontent caused by the commercial depression and of the financial difficulties both of the Government and of the President, who had advanced \$1,000,000 to the Government, Juan Jimenez, in the beginning of June, 1898, attempted to start an insurrection with the object of overthrowing President Heurieux. Gen. Jimenez, once a merchant in New York, was the founder of the flourishing town of Monte Cristo and the originator of extensive commercial enterprises covering the whole of Santo Domingo. When he revealed political aspirations he incurred the jealousy of Heurieux, and after participating in several revolutionary uprisings he was compelled to reside abroad, settling in 1890 in Paris. Fitting out an expedition in the Bahamas, he sailed in May, 1898, for Cape Haytien, and thence to Monte Cristo. Gen. Garcia, who had the management of the affair at that place, was not prepared when Jimenez arrived unexpectedly on the American steamer "Fanita." The Government, however, had been warned in good time. Gen. Jimenez insisted on making an attempt to capture the town with the assistance of Gen. Garcia, Gen. Augustin Morales, and only 11 men. They summoned the Governor, who had 20 soldiers in his garrison, to surrender. Instead of doing so, the garrison opened fire, killing 5 revolutionists. Jimenez escaped to his vessel, but all his followers, save Garcia, were captured and tried by court-martial, and all were shot except his secretary, who turned informer. When Gen. Jimenez returned to Great Inagua he was arrested under the foreign enlistment act, and in the beginning of August was tried before a jury at Nassau, but was acquitted.

SCHLEY, WINFIELD SCOTT, an American naval officer, born in Frederick County, Maryland, Oct. 9, 1839. He was appointed a cadet in the Naval Academy at Annapolis from his own State on Sept. 20, 1856, and was graduated in 1860. His seafaring experience began with a voyage to Japan on the United States vessel that escorted the Japanese embassy home in 1860, and he remained abroad until the beginning of the civil war. During his service on the frigate "Niagara," in 1860-'61, it captured the first prize ship of the war, the "General Parkhill." In 1861 he was promoted to the



WINFIELD SCOTT SCHLEY.

rank of master, and was attached to the frigate "Potomac" of the Western Gulf squadron at Ship island. His promotion to a naval lieutenantcy took place July 16, 1862. He entered shortly afterward upon a series of exciting experiences that culminated in the capture of Port Hudson. This period extended from March 16 to July 9, 1863. At the beginning of these operations, under the orders of Admiral Farragut, he made the original reconnaissance leading to the attack upon Port Hudson. His vessel, the "Winona," on that occasion received 98 shells in her hull, and lost from 15 to 20 men, but evaded capture. After the reconnaissance his duties took him on board the "Monongahela" and the "Richmond." He participated in all the engagements, including service with a field battery.

At the close of the civil war Lieut. Schley was ordered to the Pacific coast. He was present at the bombardment of Valparaiso and Callao by the Spanish fleet. In 1865 he was instrumental in suppressing an insurrection of Chinese coolies in the middle Chincha island. In the following year he was promoted to lieutenant commander, dating from July 25. In the same year he landed a force at La Union, San Salvador, to protect American interests while a revolution was in progress. Then came a three years' term as instructor at the Naval Academy (1867-'69). The next important event recorded during Lieut.-Commander Schley's sea service was made in connection with a cruise in the "Benicia," on the Asiatic station in 1871-'72. During that cruise he took part in the capture of Korean forts on Salee river, after two days' fighting, in June, 1871. Under the Tai-Wen-Kun, ruler of Korea, American survey boats were attacked in Han river, and Commander Schley was sent with a land expedition to chastise the Koreans. He took with him 650 men and 7 howitzers, and led this force successfully to the capture of a fort that could

be reached only by descending a ravine 80 feet in depth and ascending a precipitous acclivity of a similar height. The fort was taken in the face of fierce opposition. From 1873 to 1876, Commander Schley was engaged in educational duties at the Naval Academy. His next promotion, whereby he became entitled to the rank of a commander, was gazetted while he was instructing the cadets at Annapolis, on June 10, 1874.

Following this term of land service came three years on the sea. Officially his post was on what was known as the Brazil station. When on the "Essex," which he commanded in 1879-'80, Commander Schley went to the vicinity of the South Shetland Islands in search of a missing sealer, and rescued a shipwrecked crew on the island of Tristan d'Acunha. From 1880 to 1883 Commander Schley officiated as lighthouse inspector, and also was connected with the work of the Bureau of Equipment. In 1884 he volunteered to command a relief expedition in search of Lieut. Adolphus W. Greely and his company of arctic explorers. The United States vessels "Thetis" and "Bear" were fitted out for this special purpose, and promptly dispatched. The Greely party, when found, on June 22, 1884, gave evidence of utter exhaustion and rapidly approaching collapse. Lieut. Greely and six of his associates were discovered at Cape Sabine, Grinnell Land. The searching expedition, under Commander Schley, passed through 1,400 miles of ice during the voyage. Shortly after his return he was commissioned by the Naval Department as chief of the Bureau of Equipment and Recruiting, and he held that place creditably for four years. While doing duty in the bureau, Commander Schley was promoted to the rank of captain. His first sea service as captain was undertaken on the "Baltimore," a protected cruiser, which was launched Oct. 6, 1885, and placed in commission Jan. 7, 1890. Capt. Schley's connection with the "Baltimore," however, began in 1889. He retained command of this vessel three years, and after that was for three years lighthouse inspector. This term ended in 1895, during which year he served as a member of the Board of Inspection and Survey (March to October).

On Oct. 5, 1895, Capt. Schley assumed command of the armored cruiser "New York," and he remained in charge of that vessel until March, 1897. From March, 1897, to March, 1898, he was chairman of the Lighthouse Board. In the month preceding the termination of his work in this capacity Capt. Schley was promoted to the rank of commodore. When war began between Spain and the United States, Commodore Schley was selected to command the flying squadron, and his flag was raised on the cruiser "Brooklyn," on which ship he remained while the war was in progress. His operations during the campaign are described under UNITED STATES.

The recommendation of the President that Commodore Schley be made rear admiral was not acted upon by Congress before its adjournment, owing to a dispute between his friends in that body and those of Rear-Admiral Sampson, as to the part taken by each of these officers in the naval operations before and after the exit of Admiral Cervera's fleet from Santiago harbor. Commodore Schley appeared recently before an examining board and qualified for promotion to the rank of rear admiral. In 1886 he published, with James Russell Soley, a book entitled "The Rescue of Greely."

SERVIA, a monarchy in southeastern Europe. The legislative body is a single chamber called the Skupshtina, composed of 198 members elected by the votes of all male Servians paying 15 dinars, or francs, in direct taxes. The reigning King is Al-

xander I, born Aug. 14, 1876, who succeeded in 1889 to the throne vacated by the abdication of his father, Milan I, and assumed the government in person on April 13, 1893. The ministry, constituted on Oct. 23, 1898, was composed as follows: President of the Council and Minister of Foreign Affairs, Vladan Georgevich; Minister of the Interior, Jofrem A. Andonovich; Minister of Finance, Steva D. Popovich; Minister of Commerce, Agriculture, and Industry, Sima Lozanich; Minister of Public Instruction and Worship, Andrea Georgevich; Minister of Justice, Costa N. Cristich; Minister of War, Col. D. Vukovich; Minister of Public Works, Gen. J. Atanatskovich.

Area and Population.—The area of Servia is 19,050 square miles. The population on Jan. 1, 1898, was computed to be 2,384,205, consisting of 1,224,756 males and 1,159,449 females. The number of marriages in 1897 was 21,157; of births, 101,605; of deaths, 63,237; excess of births, 38,368. Belgrade, the capital, had in 1898 a population of 59,259.

Finances.—The budget for 1898 makes the total revenue 68,824,500 dinars, of which 22,035,000 dinars came from direct taxes, 6,000,000 dinars from customs, 3,850,000 dinars from excise, 2,500,000 dinars from law courts, 19,461,000 dinars from monopolies, 3,034,500 dinars from domains, posts, and telegraphs, etc., 660,000 dinars from instruction and sanitary service funds, 6,200,000 dinars from the state railroad, and 5,084,000 dinars from other sources. The total expenditures were fixed at 68,822,569 dinars, of which 1,200,000 dinars were for the King's civil list, 360,000 dinars for ex-King Milan's allowance, 76,810 dinars for court employees, 20,762,545 dinars for the debt, 150,000 dinars for the Skupshtina, 155,816 dinars for the Council of State, 341,500 dinars for general credits, 2,714,451 dinars for pensions and subventions, 1,722,531 dinars for justice, 2,927,081 dinars for public instruction and worship, 1,644,217 dinars for foreign affairs, 3,353,750 dinars for the interior, 8,227,415 dinars for finance, 15,754,613 dinars for war, 4,764,903 dinars for public works, 3,227,927 dinars for agriculture and commerce, 426,258 dinars for miscellaneous expenses, and 1,012,652 dinars for auditing accounts.

The public debt on Jan. 1, 1898, amounted to 409,537,500 dinars, of which 353,500,000 dinars consisted of the 4-per-cent. conversion loan of 1895.

The Army.—Under the law of 1896 every Servian is liable to serve two years in the standing army. The effective strength provided for in the budget of 1897 was 661 infantry officers and 14,000 men, 101 cavalry officers and 1,400 men, 270 artillery officers and 4,000 men, 65 engineer officers and 1,000 men, 10 officers of train and 300 men, 49 sanitary officers and 500 men, and 68 administrative officers and 24 officers on the general staff. The war strength is estimated at 110,245 men of all ranks in the five divisions of the regular army, 14,863 outside of division formations, 35,643 in depots and recruiting stations, 126,610 in the first ban, and 66,005 in the second ban; total, 353,366 officers and men.

Commerce.—The total value of the imports in 1897 was 45,314,000 dinars, and of the exports 55,940,000 dinars. Of the imports 2,153,000 dinars and of the exports 21,625,000 dinars were horticultural and agricultural products; 839,000 dinars of imports and 3,713,000 dinars of exports were articles of food and drink; 3,733,000 dinars of exports were colonial products; 1,227,000 dinars of imports and 24,587,000 dinars of exports were animals and animal products; 4,260,000 dinars of imports and 3,256,000 dinars of exports were hides, leather, and rubber; 5,147,000 dinars of imports

and 102,000 dinars of exports were wool and woolen manufactures; 1,534,000 dinars of imports and 247,000 dinars of exports were cereals; 3,769,000 dinars of imports and 220,000 dinars of exports were metals and metallic goods; 1,926,000 dinars of imports and 322,000 dinars of exports were china, clay, and glass products; 901,000 dinars of imports were paper; 1,446,000 dinars of imports and 42,000 dinars of exports were drugs, dyes, and chemicals; 1,249,000 dinars of imports and 15,000 dinars of exports were machines and instruments; 10,495,000 dinars of imports and 1,117,000 dinars of exports were cotton and linen goods; 808,000 dinars of imports were silks; 1,105,000 dinars of imports were hardware; 3,036,000 dinars of imports and 23,000 dinars of exports were garments and millinery; and 8,000 dinars of imports and 75,000 dinars of exports were fertilizers. Of the total imports 25,501,000 dinars were received from Austria-Hungary, and of the exports 49,146,000 dinars went to that destination.

Communications.—There were 377 miles of railroad in operation in 1898. The telegraphs in 1897 had a length of 2,521 miles, with 5,034 miles of wire. The number of dispatches in 1897 was 187,870, of which 115,800 were internal, 12,250 international, and 10,320 in transit.

Political Affairs.—Ex-King Milan, after remaining abroad for many years an involuntary exile, returned in 1897 on his son's invitation, and as the King's adviser sought to counteract the aims of the Radical party and the influence of Queen Nathalie, from whom he had obtained a divorce, but who, by its annulment, was restored to her station. In January, 1898, Milan was appointed commander-in-chief of the Servian army. In May the Radical leader Pasich was tried for *lèse-majesté*, but was acquitted. The unsettled state of Macedonia, where Bulgarian and Servian intrigues were on foot, caused the Servian Government to complain to the Porte of vexatious acts committed by Albanians upon Servians in the vilayet of Kossovo. The general elections, which took place at the beginning of June, resulted in a decisive victory for the Government. The Liberals obtained 112 seats; the Progressists, 62; neutrals, 19; the Radicals, only 1 seat. On Dec. 9 Minister Popovich retired, and Vukasin Petrovich took the portfolio of Finance. The new minister, though he regarded the financial position as difficult, proposed to deal with it by reorganizing the administration instead of imposing new taxes.

SETTLEMENTS, SOCIAL. Although Arnold Toynbee (born in 1852, died in 1883) merely suggested by his manner of life the work that has taken definite form in the settlements which are ameliorating the conditions of the poor, they virtually owe their existence to him. As applied to philanthropic work, the word is comparatively new. Toynbee was a young Englishman, a graduate of Oxford, and a profound student of political economy. When he came to apply the results of his study to life as he saw it in London, he was impressed with the idea that the laws of political economy must be associated with ethical principles. Neither civic nor national progress could be made among a people who were without hope or ambition other than to secure merely food and shelter by labor or craft. Partly to study social conditions from within, partly to improve them, Toynbee went to live among the lowest of the London poor. Learning, as all must whose attention is directed that way, the amount of remediable misery among the ignorant poor, he strove by both precept and example to alleviate it. He founded nothing, formulated nothing, but simply gave his life to the people who most needed it, and died among them at the age of thirty-one. His work was not unobserved, and there were many converts

to his belief that to help the people did not consist in the giving of alms to the East End by the affluence of the West End; but that brotherly love and intimate association were the only things that could soften the hard resistance of vice and ignorance. This is the basic idea of the settlement, that those who have gifts of money or education shall use them for the benefit of the less fortunate; not in charity, not as alms, but that all classes may more thoroughly understand one another, and that they may feel the spirit of universal brotherhood. Thus is bitterness and a sense of injustice and rebellion taken from the hearts of the oppressed, and the nation thereby bettered; for brotherhood and politics may be closely allied.

Toynbee Hall was built in the Whitechapel district of London in 1885, shortly after the death of the man for whom it was named, and thus was settlement work begun. Because Toynbee and the early workers were university men, studying sociological problems even while they practiced altruism, the first buildings used for their work were called university settlements; but now there are many having no college connection, and their names are various. The University Settlement, begun two years later than Toynbee Hall, is the first one founded in America. Its beginning was small; an emulation of Old World methods of philanthropy in that part of New York where the residents are mostly Europeans. After four years of improper housing, the society got possession of an old dwelling house on Delancey Street, which was adapted to their uses; but the needs far outgrew the capacity of the house, and funds were accumulated which would warrant building a large structure at Eldridge and Rivington Streets. College graduates were the workers in the new philanthropy, and these were for the most part men who wished both to study sociological problems and to relieve those who suffered under them. Now the work is so extensive that visiting workers and assistants are employed who are not of necessity college men, and a woman's auxiliary has been formed which is open to any efficient women workers.

In pursuance of Toynbee's plan, a residence is made among the people whom it is designed to help. The chief workers make their homes in the settlement house, or even live in tenements in the neighborhood. The manner of their living shows by example how it is possible to live in quarters identical with those of the poorest, and yet to keep the surroundings clean and attractive. As the conditions of the East Side home are not always susceptible of much improvement, because of the overcrowding, the energies are directed toward making the settlement house the real home of the neighborhood. Home life, as it is understood in the phrase, "The home makes the nation," is unknown where floor space is too limited for the occupants to sleep on beds. Where home means unremitting noise, absence of privacy, and the outbreaks of temper which these induce, its occupants seek other places for rest and pleasure. The neighborhood is filled with saloons and dance halls for their enticement, and in these places every form of evil is cultivated. It is the object of the settlement to supply to those of the crowded neighborhood all the pleasures they need, and at the same time to give them mental stimulus and inspire them with brotherly love.

To this end the settlement house is usually divided thus: The first and fourth floors are given up to public rooms, and the other floors are the home of the resident workers. One of the public rooms is fitted with the appliances of a gymnasium, but is also arranged for use as an audience hall for lectures, concerts, debates, etc. It is also used for dances, it having been found that the dance hall

proved too great a temptation to young boys and girls, unless they could have dancing at the settlement. Good music is provided, for which the dancers pay a small sum. Apart from the example set by the residents of the settlement, the neighborhood is benefited through the active means of classes and clubs. The former have teachers regularly fitted for the work, whose salary is paid by the society. There is a kindergarten for the very young children who are crowded out of public schools or kindergartens, and whose education is doubly important from the fact that it is mainly through these little ones that their elders are reached. There are districts in our largest cities filled with unamalgamated foreigners, whose language and religion insulate them, and it is a sociological fact that these people are only to be lifted from their state of semibarbarism through the children. In the kindergarten the children learn cleanliness, morality, and the English language; therefore the settlement regards the kindergarten as one of its most important departments. Classes in music and dancing rank next in the average of attendance. The music includes choral practice and sight reading, which has proved a great attraction. Instruction in some cases is given on small musical instruments, such as the mandolin or the guitar; and musical literature is studied by those whose interests lie that way. The settlement, whose work is carried on under university auspices, feels that much evil is prevented by the dancing classes. Low dancing halls are found in every poor neighborhood, and their influence is most pernicious. It is also recognized that the young, especially those whose lives are sordid and oppressed, need the gayety of social commingling. Therefore the settlement endeavors to supply this gayety, at the same time eliminating from it the objectionable features. The gatherings and classes are attended by both young men and young women, as well as by children, at suitable hours.

Classes in city history are formed for boys and men, the object of which is to inculcate the principles of self-government and cultivate an interest in civics, to the end that intelligent voters may be made. The politics of Europe are so different from ours, and the political education of the lower classes so meager, it is deemed a good work to instill into the minds of voters the principles of government on which our nation rests.

Classes of women and girls are taught sewing, of which the lowest strata of society are lamentably ignorant. When clothing is bought for the family it is purchased ready-made of the sidewalk vender; and when the women sew in sweatshops or factories the work is so specialized that each worker has only a portion of each garment to do, and thus never learns how to construct an entire garment alone, unless the sewing class gives the instruction. Another class for women and girls is the cooking class, which has its special teacher and descends into the kitchen for lessons, unless it is furnished with a room supplied with gas stoves and other appurtenances. It is a discouraging fact to the settlement worker that the attendance is small in these two departments of women's labor—cooking and sewing. Other classes give instruction in drawing, German, kitchen gardening, first aid to the injured, and in gymnasium, work the latter having by far the highest attendance of any except musical, dancing, political history, or kindergarten classes.

Even more important than the classes in settlement work are the innumerable clubs, the basis of which is always social. These are largely managed by the members themselves, and the hand of the settlement worker only guides invisibly. When the doors of a newly established settlement house

are thrown open to the neighborhood, an unruly and curious crowd swarms in the rooms; some coming to make disturbance, others in search of a free treat, and still others from the instincts of gregariousness. To interest and to co-ordinate this mass of raw material it is divided according to its tastes, sex, or age; and thus are formed the numerous clubs, which bind the members to the house, keep them from low resorts or the demoralizing influence of the streets, and gradually raise their standards of education and morality. In the boys' club the election of officers is a time of conflict, and all business meetings are attended with some heat; but order is always preserved, and the boys learn the valuable lesson of self-control. Besides this, they learn how to conduct a public meeting with parliamentary rules, a necessary accomplishment in a country where politics bring the humble into prominence. Boys' clubs run to two varieties—those which have to do with education, such as the various literary, civic, and musical clubs, and those which favor athletics, both indoors and out. Girls' clubs meet mainly for the social pleasure of gathering amid pleasant surroundings to practice the more purely feminine arts. Clubs for women are formed and are found to be a great help and pleasure to the mothers of children interested in the settlement. Men's clubs are devoted mainly to the study of politics, civics, and sociology. It is a significant fact that the saloon hotels of the neighborhood offer free accommodations to all clubs, hoping thus to lure this large number of persons to patronize them; but so much confidence is felt in the settlement that its beneficiaries will not be drawn away from its protection.

Under the head of clubs fall two important settlement institutions. These are the library and the penny provident bank. From the library of the University Settlement of New York as many as 46,500 books a year are drawn. Reports show a large demand for history, especially United States history, and this is particularly desired by the children of foreigners. It is easy to see that patriotism for the adopted country is augmented by the literature which the settlement library furnishes. The children of crowded city districts receive but little moral and mental stimulus at home, and so must find it in books, and in them also learn ideals of civic morality. The experiment has been tried of sending books to boys who are in city prisons, and, contrary to expectations, the books have been neither destroyed nor mutilated, but some of them returned accompanied with notes of gratitude. The penny provident bank is conducted on the principles governing this institution everywhere, and is liberally patronized. As many as 1,500 depositors, half of whom deposit twice a week, are on the books of some of these institutions. The pawnshop has also been found a satisfactory adjunct to settlement philanthropy.

Work outside the settlement house is courageously undertaken by the workers, both resident and visiting. Primarily this consists of becoming acquainted, in a way of friendly equality, with as many families of the neighborhood as possible. Their confidence once won, their distresses and wrongs become known, and these the worker seeks to alleviate. Possibly he has to educate the people in sanitary laws, to change their resistance of the Board of Health into co-operation with that body. That this is an important detail in civics may be known from the experiences in the East Side of New York during the time when the separation of garbage, ashes, and paper was made imperative under Col. Waring's orders. Police force was necessary to secure this separation, for the tenants of the East Side had not sufficient intelligence to keep

the three kinds of waste in separate receptacles, but would mix them all and refuse to sort except on penalty of arrest. The men of the district rebelled at the unpleasant task put upon their wives, and showed it by voting in thousands against the officers of the Department of Street Cleaning. The work of the settlement is to educate the people to an understanding of the laws, and thus inspire co-operation instead of an opposition bitter through ignorance.

The class of people who come most to the settlement houses, to take advantage of what they offer in the way of education and amusement, are not those who need outside help; for the same ambition and energy that impels them to attend the clubs and libraries expresses itself in their daily work, and their home affairs rarely need the adjusting hand of the outsider. But there is a class who through thriftlessness or misfortune require relief, principally in the matter of rent, for rent paying is the greatest burden of the very poor in cities, especially in New York, where real estate is so valuable. A mediator is often needed between landlord and tenant to prevent loss of rent by the one and loss of shelter by the other. The settlement worker informs himself thoroughly on both sides, and gives the required help. During strikes, or times of great financial depression, actual pecuniary assistance is necessary, and to save the misery of dispossession, the settlement furnishes such relief. Work in this line shows that it is better to require labor in return for money than to lend money, for in the latter case it is rarely repaid. Arrangement is sometimes made with street-cleaning departments to take heads of distressed families on the force, letting the settlement pay the bill through the department. Rent dodging is becoming more and more popular, and after studying carefully into its cause and prevention, the settlements are doing their best to diminish it by showing that it is not the rich landlord who suffers, but the honest tenant, whose rent is raised to cover the losses caused by rent dodgers.

Another department of outside work is that of nursing. The economy of the poor in matters of physical health is notorious, and much unnecessary suffering is caused thereby. A physician is not summoned until so late that his services may not avail, and intelligent nursing to follow out his directions is wanting. To help these matters, the trained nurse offers her services to the settlement. In New York is a trained-nurse settlement, where minor accidents are treated in the house, and whence nurses go to attend the sick poor in their homes. The work of this society is confessedly to relieve the sick; yet its ministrations do not stop there, for the nurse becomes the friend and confidant of the relieved family and sees a wide opportunity for giving moral help as well as physical.

Entertainments at the settlement are powerful in interesting the people of the neighborhood in its work, and these are given throughout the year at least once a week. The basis of all the clubs is social, so that each club meeting is in the way of an entertainment; but apart from these are lectures, sociables, concerts, and even fairs; while certain holidays are kept with feasting, especially at Christmas. As far as possible, these entertainments depend for support upon the efforts of the people they benefit. Everything possible is done to encourage a mutually helpful spirit and abolish class hatred. In summer there are various outings for boys and girls and mothers. A camp is established beside a lake or a river, and the boys who are fortunate enough to go there have a season of happiness and instruction. Sometimes a hundred or more children are taken to the circus or to some similar entertain-

ment. By arrangements with the Department of Public Charities or smaller institutions, the children of the settlement can have a day's relief from the scorching city streets on a barge.

We have in our country a mass of people that do not amalgamate with the others, that the nation can not assimilate; a solid block of Europe's lowest population, who refuse to accept our language, our customs, and the spirit of our laws. Besides this class, we have the one with which we are more familiar, the criminal and ignorant of the English-speaking poor. All these people are an expense and a menace to the cities they inhabit. Except through the settlement workers, these people can not be reached; but through them they are receiving lessons that will ultimately make good citizens of them, and especially of their children.

Money for this work is supplied by voluntary contributions of private individuals whose interest has been excited, and from small receipts of clubs, kindergarten, and library. In the case of the University Settlement in New York, the city contributed nearly \$2,000 for the library. Regular subscribers to settlement societies are styled fellows, associates, and members, who give annually from \$5 to \$100 each.

The number of settlements in the United States is 80, 16 of these being in New York; some are independent, while others are connected with churches. The Riverside Settlement and Hartley House are both established and maintained through the donations of the founders and their families. The College Settlement Association is an organization of college women, and has houses in New York, Philadelphia, and Boston. It is the hope of this association to pay their teachers through the fees of the pupils, instead of through donations. Hull House, in Chicago, is known all over the philanthropic world. Its influence is recognized on questions affecting the sanitary conditions of the ward in which it is located and in its relation to the civic life of the people. The improvement of the neighborhood is so marked since this settlement began its work that the Mayor of Chicago has made a Hull House resident chief garbage inspector of the city.

The whole idea of the settlement is brotherly love; not the charity which dispenses alms, but the altruism which prompts men and women to regard their own gifts and opportunities merely as happy instruments for leading others from misery and crime, a charity which is humble enough to value friendship without regard to class distinction; in short, a combination of political economy and love for fellow man.

SHAFTER, WILLIAM RUFUS, an American soldier, born in Kalamazoo County, Michigan, Oct. 16, 1835. His childhood and youth were passed amid agricultural surroundings. An old army comrade, who knew him in his earlier years, once said: "He was only a farmer's boy, tough and lean as hickory, following the scythe barefooted, in harvest, to bundle up the wheat that was to go into the shock that was to go into the stack." When the civil war broke out, young Shafter was appointed first lieutenant in the Seventh Michigan Infantry, on Aug. 22, 1861. Brig.-Gen. Napoleon J. T. Dana, in his official report of the battle of Fair Oaks, in describing the operations of his brigade when in the first line of battle, said: "Lieut. Shafter, Seventh Michigan Volunteers, in charge of the pioneers, who was slightly wounded but kept the field, furnished beautiful exhibitions of gallant conduct and intelligent activity."

Lieut. Shafter was honorably mustered out of service on Aug. 22, 1862, and two weeks later he became major of the Nineteenth Michigan Infantry. When serving with this regiment, which formed a

part of Col. Coburn's command, he was captured by Confederate cavalry under Gen. Joseph Wheeler, and was taken to Libby Prison. His exchange was effected about sixty days later. Coburn's brigade, at the time of the capture, was on a foraging expedition, and fell into the hands of Wheeler's flying squadron. Brig.-Gen. Absalom Baird, commanding the third division of the Army of Kentucky, in a dispatch from his headquarters at Franklin, Tenn., dated March 11, 1863, said, in reporting the capture of Col. Coburn's command at Thompson's Station:



WILLIAM RUFUS SHAFTER.

"The bravery of the little band surrounded and captured was so conspicuous as to elicit the applause of the enemy himself, and we are informed that Cols. Coburn and Gilbert and Major Shafter were permitted on this account to retain their horses and side arms." Col. Coburn, in his official report on the affair, refers to Major Shafter as one of the officers "at their posts, bravely doing their duty." About a month after Major Shafter's exchange, in June, 1863, he was promoted to a lieutenant colonelcy, and on April 18, 1864, he was again honorably mustered out. The following day, however, he was made colonel of the Seventeenth United States (colored) Infantry. His promotion to brevet brigadier general was dated March 13, 1865.

In July, 1866, while still in the volunteer service, Brig.-Gen. Shafter was made lieutenant colonel of the Forty-first Regiment of regular infantry. He was mustered out of the volunteer service for the third time on Nov. 2, 1866. On the reorganization of the army, in 1869, he was transferred to the Twenty-fourth Infantry, having received in the meantime the brevet of colonel for gallant and meritorious services in the battle of Fair Oaks, Virginia. He became colonel of the First Infantry on March 4, 1879.

As a regimental commanding officer, Col. Shafter became noted for his discipline. The officers and men under his command were marked for their efficiency, including an excellent appearance on parade and general good behavior. As lieutenant colonel of the Twenty-fourth Infantry, he served with distinction, subsequent to the civil war, in the Indian campaigns in Texas and New Mexico.

In May, 1897, Col. Shafter was made brigadier general, and shortly after the declaration of war with Spain, he was appointed major general of volunteers, to date from May 4, 1898. His record, and that of his command during the campaign in Cuba, is given in detail under UNITED STATES.

Major-Gen. Shafter arrived home from Cuba with the headquarters of his division on Sept. 1, 1898, and landed at Montauk Point, Long Island. He was afterward placed in command of the Department of the East. At the termination of the campaign, according to statistics made public by the War Department, the percentage of loss to his force from conflict with the Spaniards was infinitesimal when compared with results as shown in the records of the civil war and previous conflicts in which United States troops were engaged. Adj.-Gen. Corbin, when asked, shortly after the war with Spain began, why Shafter was selected to lead the campaign in Cuba, said: "On account of his rank and conceded ability, his vigor and good judgment. He is one of the men in the army who has been able to do what he was ordered to do; not a man to find out how things can't be done."

SIAM, an absolute monarchy in southeastern Asia. The reigning King is Chulalongkorn, born Sept. 21, 1853, who succeeded his father, Mongkut, Oct. 1, 1868. With an area of about 244,000 square miles, the country has a population of about 10,000,000. The official religion is Buddhism. There is a steady immigration of Chinese, of whom 37,475 came in 1896. Bangkok, the capital, has about 200,000 inhabitants, half of whom are Chinese. The imports in 1896 were valued at \$14,747,000, and the exports at \$27,505,000. The merchant marine numbers 18 vessels, of 5,238 tons, including 4 steamers, of 658 tons. There are 92 miles of railroad, and 1,810 miles of telegraph. The King has an army of 10,000 men, trained and commanded by European officers, which has been formed since the war with France, when he had only 3,000 troops, not half of them trained in any way. Of arms he has 10,000 Mannlicher repeating rifles and 40,000 Mausers. His fleet consists of 2 cruisers and 4 gunboats.

SOUTH CAROLINA, a Southern State, one of the original thirteen, ratified the Constitution May 23, 1788; area, 3,750 square miles. The population, according to each decennial census, was 249,073 in 1790; 345,591 in 1800; 415,115 in 1810; 502,741 in 1820; 581,185 in 1830; 594,398 in 1840; 668,507 in 1850; 703,708 in 1860; 705,606 in 1870; 995,577 in 1880; and 1,151,149 in 1890. Capital, Columbia.

Government.—The following were the State officers during the year: Governor, W. H. Ellerbe; Lieutenant Governor, M. B. McSweeney; Secretary of State, D. H. Tompkins; Treasurer, W. H. Timmerman; Comptroller, L. P. Epton; Attorney-General, W. A. Barber; Adjutant General, J. G. Watts; Superintendent of Education, W. D. Mayfield; Phosphate Inspector, A. W. Jones; Chief Justice of the Supreme Court, Henry McIver; Associate Justices, Eugene B. Gary, Ira B. Jones, and Y. J. Pope; Clerk, U. R. Brooks. All are Democrats.

Finances.—The Governor in his message says the finances are still in an unsatisfactory condition; the Treasurer has been obliged to overdraw for small amounts upon various banks where the funds have been, in order to meet obligations. About \$500 of the old debt was funded this year, leaving \$350,208 outstanding Dec. 31, 1898. The amount of the interest-paying debt outstanding is \$6,494,657.47. The cash balance at the opening of the year was \$439,418.39; the amount received, \$2,407,283.88; the expenditures, \$2,396,025.21; leaving at the close of 1898, \$450,677.06, of which \$140,383.75 belongs to the general fund.

The total value of the assets of the cumulative phosphate royalty sinking fund is \$296,592.04. Of this amount, \$105,056.75 is lent to counties at a rate of 5 per cent. interest per annum. The sinking fund has permanently invested in State stocks \$35,728.56. There is invested in temporary loans to

banks, under the acts of Feb. 25, 1896, and Feb. 25, 1897, \$23,484.22. This leaves a balance, \$127,322.51, which has been deposited in banks, and which draws 4 per cent., payable monthly. The State received this year from the phosphate royalty \$23,522.64.

Education.—The total enrollment in the public schools was 275,889, of whom the majority, 150,787, were colored; it is an increase of 17,706 over that of the year preceding. The estimate of the number of children of school age in the State is 200,000 white and 350,000 colored.

During the past eight years 1,148 schoolhouses have been built at a cost of \$284,743.58; but every year there is necessity for using private houses for the overflow.

The cost of the schools was \$781,241.50, of which \$526,858.20 was for the schools for whites and \$204,383.30 for those for colored. The schools for whites were run an average of 4.82 months, and those for blacks 4.20 months. The expenditures of the whites exceed those for the blacks as follows: Salaries, \$275,128.47; rent, \$1,001.61; repairs, \$5,565.26; furniture, \$4,087.33; fuel and incidentals, \$4,125.58; maps, globes, and charts, \$14,470.83; library, \$634.88; sites, \$867.31; building, \$14,096.38; other purposes, \$2,747.44; aggregating a total of \$322,474.90. It will be seen that there was a little more than 2½ times as much spent on the white than on the black schools.

To the \$781,241.50 must be added some \$20,000 for the salaries of county superintendents and expenses of county boards of education, paid from the ordinary county funds, and also \$3,500 for this department, paid from the State treasury, the whole aggregating \$754,741.50, which is the total cost for the public schools for the year.

For the schools for whites there were 3,076 teachers, of whom 1,915 were women; and for the colored, 2,166, of whom 1,045 were women.

The trustees of the Peabody educational fund continue to allow the State 12 scholarships in the Nashville Peabody Normal College, each worth \$100, and traveling expenses for the recipients. For the first scholastic year they allow Winthrop Normal and Industrial College \$2,900, Claflin University \$700, and for teachers' institutes \$1,500; and \$850 has been given from the fund to the colored schools of Charleston.

In the past session 180 students were enrolled at the South Carolina College, of whom 92 were new students, 4 were graduates, 68 were in literary and classical courses, 27 in scientific courses, and 23 were studying law. At the June commencement 26 received diplomas.

The estimated expenses for the coming year were \$32,035, of which \$4,500 will be paid by the fees.

The preparatory department has been abandoned, and a plan made for admitting students on certificate from schools, conforming to certain regulations. Forty of the leading schools of the State have accepted the conditions, and are accredited schools of the college.

There was a disturbance in the Military Academy at the Citadel in April, which resulted in the dismissal of 64 cadets.

Winthrop Normal and Industrial School, at Rock Hill, admitted 463 girls at the last session, 344 in the college classes and 119 in the practice school. All the counties of the State are represented, and 4 other States have 8 in the college classes. It is found that 60 per cent. could not have attended college if Winthrop had not brought the opportunity within their reach. The number in the normal department is 177. The cost of maintenance is made smaller than it would otherwise be by the supplies from the farm of 144 acres attached to the college. The appropriation asked for is \$31,148.48.

The Institution for the Deaf and Blind is reported as in good condition.

Clemson College receives from the Hatch and Morrill funds, and other sources besides State appropriation, \$34,760. During the year the trustees set aside \$12,000 to build a textile training school. It is designed like a small cotton factory, and is to be equipped with specimen machinery for the work of all departments of such a factory, and students will be required to learn the use and construction of the machinery. It is intended to provide special instruction for those already working in mills at such times as will be convenient for them. Manufacturers have presented samples of the latest models of cotton machinery to the department to such an amount as to make the value of the property belonging to the Textile School almost double the amount that the State has expended on it. A class of 26 was graduated in February; more than 400 students were registered during the fall term.

There are in the State 61 high schools and academies for white students, and 7 for colored; and 24 colleges and universities for white students, and 4 for colored.

Charities and Corrections.—The State Hospital for the Insane had 933 inmates at the beginning of the year, and received 424. The daily average was 975. The number remaining at the close was 966. The total number under treatment was 126 greater than in 1897. The recoveries were 97, and the cases much improved 53. The last Legislature appropriated \$13,500 for the completion of the Parker Building, which was ready for occupancy in August; including the cost of the brick, which has been made by convict labor, it has cost about \$30,000; it will accommodate 400 patients. The total cost of maintenance was \$99,958. About 96 per cent. of the patients are maintained at the expense of the State.

There were 728 convicts in the Penitentiary Jan. 1; 280 were received and 14 who had escaped were recaptured. The sentences of 165 expired, 12 were pardoned, 31 died, 20 escaped, 3 were killed while trying to escape. There were 784 at the close of the year. The receipts for the year were \$70,009.91; the disbursements, \$65,205.47; the amounts collected Jan. 1, 1899, \$9,328.95. The balance on hand and to be collected was \$15,633.39, of which \$10,000 was ordered paid into the State treasury. The rains during the year cut down the cotton crop and affected the quality unfavorably, so that it is proposed to cut down the cotton acreage this year about one half.

The Governor was authorized to appoint a commission of 5 to investigate the workings of juvenile reformatories, and report on the advisability of establishing one in the State. Their conclusion was that such an institution should be established, but that for the present only negro youth should be committed, since there were but few white youthful criminals, and they could be sent at the cost of the State to reformatories in other States.

Military.—The State furnished about 2,500 men for the Spanish war. So many of these men were in the National Guard that the militia needs to be thoroughly reorganized.

The State pays annually \$100,000 in Confederate pensions.

Bills for furnishings for the volunteer troops were sent to Washington; but the Comptroller refused to pay them, on the ground that the State owes the Government about \$123,000 on some claims incident to the landscript legislation.

The Board of Health.—The Legislature appropriated \$1,500 for the use of the Board of Health, of which \$523 was paid for printing its report. There was an epidemic of smallpox this year, and

the State board took charge in localities where there were no local boards, but were hampered, in their work, the Governor says, by want of funds and of sufficient authority; and the epidemic had not been wholly conquered at the close of the year.

Industries and Resources.—During the cotton year ending Aug. 31, 1898, new spindles to the number of 211,532 were added to the factory facilities of the State, and new looms to the number of 7,950.

The cotton crop is given as 1,008,000 bales, and the corn crop as 17,500,000 bushels.

In an article on the resources of the State, the president of the Agricultural College for colored students, at Orangeburg, gives a partial list of the water powers, showing a total of 83,261 horse power developed and 74,617 undeveloped.

The report of the phosphate inspector says that the several companies lost in production about 8,000 tons by two disastrous storms—in August and October—and in all ways about 25,000 tons; but still the total production was 99,315 tons, an increase over 1897 of 23,002 tons. The total shipments were 94,098.24, a decrease of 1,138.96. The inspector urges a small appropriation to be used for examining for phosphate deposits the beds of the creeks intersecting the marsh lands of the State.

The Dispensary.—The Governor's message has a great deal on this subject, from which the following details are taken:

"This method of controlling the liquor traffic has now been in force for five and a half years, and the protracted and bitter struggle between its friends and its foes has reached a critical stage. At the last session of the Legislature the litigation instituted in the United States Circuit Court by Vandercook had reached the Supreme Court of the United States, on appeal from Judge Simonton's decision. For almost a year there had been absolute paralysis of the dispensary law, so far as its punitive features were concerned, and the constables had all been discharged. The dispensaries had been forced to fight free whisky on terms of absolute equality; yet, strange to say, they fought it successfully; for while the profits were reduced by this lawless competition, there was still enough business to make the dispensary self-supporting and leave a small margin of profit. In May last the Supreme Court at Washington handed down its decision, sustaining the constitutionality of the dispensary law in all its features, with the limitation only as to importation for personal use. The constabulary was reorganized and put to work, and from that time to this the force has been kept busy trying to destroy the unlawful traffic."

The report of the Board of Control says, in part:

"During Mr. Traxler's administration, covering a period of nineteen months, the net profits to the State, counties, and towns amounted to \$125,328.40. During the administration of Mr. Mixson, covering a period of fourteen months, the net profits to the State, counties, and towns amounted to \$313,974.08. Total profits for both of these periods, covering thirty-three months, \$439,302.48. During the incumbency of the State Board of Control, a period covering thirty-three months, the total net profits to the State, counties, and towns have amounted to \$853,219.95. This result has been obtained at a considerably reduced scale of profits and prices to consumers, with a volume of business increased but little."

Railroads.—The Railroad Commission says in its report:

"At the last session of the General Assembly an act was passed putting the express and telegraph companies under the supervision and control of the

Railroad Commission, and requiring this board to make rules for the government of, and rates of toll to be charged by, these companies on all business done in this State. Under this law the following tariff was issued, to be used by the express company of this State, which makes a considerable reduction in the express rates: The rate from 1 to 25 miles was reduced from 40 cents to 30 cents per hundred, and the 50-cent rate reduced to 40 cents, making a uniform tariff for all shippers."

Statistics are given of many of the roads. The Atlantic Coast Line of South Carolina has 928.91 miles operated in the State; its net income for the year ending June 30, 1898, was \$186,319.28, an increase of \$128,109.22 over 1897. The Southern Railway's income decreased from \$710,144.19 in 1897 to \$606,344.89 in 1898. The South Carolina and Georgia has been greatly improved since 1894. The Charleston and Savannah, 102 miles, with branch roads of over 40 miles, is in good condition and is constantly improving. The Florida Central and Peninsular has 103 miles of track in the State; its net income shows an increase over 1897 of \$19,344.49. The Columbia, Newberry and Laurent, having 75 miles, shows an increase of \$3,642.26. The Seaboard Air Line has 136½ miles in the State, and the net earnings show a slight increase. The Carolina and Northwestern had a net income in 1898 of \$10,554.37, an increase of \$282.93 over 1897. The Lancaster and Chester, 28 miles, has been improved under the present management. The Carolina Midland had in 1898 a net income of \$14,921.45, an increase of \$678.87. It is 72 miles long, 17 miles have been finished this year. The Georgetown and Western Carolina shows a falling off of \$439.18 in its net income. The Wilson and Summerton has 50.92 miles. Its net income for 1898 was \$14,907.68, an increase of \$204.81. The Blue Ridge, 34 miles long, is the only one in the State now in the hands of a receiver.

Signers of the Ordinance of Secession.—At the last session of the General Assembly permission was granted to a committee of ladies to place a mural tablet in the Statehouse commemorating the signers of the ordinance of secession; and the tablet was unveiled Dec. 20, the thirty-eighth anniversary of the signing.

Mob Law.—In a report giving the number of lynchings in each State in 1898, South Carolina was credited with 14 executions by mobs. In his message the Governor recommended that it should be made a crime for an officer to allow a prisoner to be taken from him by violence; that any county where a lynching has occurred should be liable to the heir of the victim in the sum of \$5,000; and that men convicted of participation in such an act should be disfranchised.

A most brutal and unprovoked murder was committed Feb. 22 by a mob at Lake City, Williamsburg County. A negro, Fraser Baker, was appointed postmaster of the town in July, 1897. There was nothing to be said against his character, but indignation was expressed at the appointment of a negro, and the United States Senators of the State and one of the members of Congress had asked, it is said, to have him removed. He had been fired at twice by concealed assassins, and on the night of Feb. 21-22 a mob surrounded his house, poured oil upon it, and set it on fire. When the family attempted to escape, the murderers opened fire upon them, killing the postmaster and his youngest child, two years old, and wounding his wife, son, and two daughters so that they are maimed for life. Six men were arrested at Lake City, June 28, by United States authorities, charged with being the leaders of the mob. They were taken to Charleston and bound over for trial after a preliminary

ary hearing. A seventh man had turned State's evidence and told the story of the planning of the crime.

On Feb. 12 an innocent negro was killed by a band of eight or ten white men who were looking for another negro who had been tried twice before a white jury on a charge of arson; the first jury could not agree, and the second acquitted him.

On Jan. 27 a negro who had killed a constable was lynched while trying to escape arrest in Florence County, by a mob said to number 200 to 250.

Three negroes were shot by a mob Oct. 25, at Edgefield. They were believed to be the murderers of Mrs. Atkinson, who was shot while driving with her husband, who was probably the intended victim.

An election riot took place Nov. 8 at Phoenix, near Greenwood. A Republican, R. R. Tolbert, who was a candidate for Congress in the district, had made arrangements to have a record kept of the votes of those who were rejected either for registration or at the polls. He had three forms of blanks prepared; the first was to be signed in autograph by every rejected voter who could both read and write, the second to be signed with a cross by every rejected voter who could read but not write, and the third to be signed by every rejected voter who could neither read nor write. He arranged to have these affidavits in the hands of a friend at each precinct, to be signed by the rejected voters in the presence of special witnesses and in the most public manner, and either sworn to on the spot before a notary or probated by the witness before the clerk of the County Court. These affidavits he intended to present in Congress as evidence that he would have been elected if the ballots of these men, or those who were qualified to vote, had not been rejected. While his brother was taking these affidavits, Boaz Etheridge, an election manager at a precinct two miles away, demanded the box in which they were kept. A quarrel and riot ensued in which Etheridge was killed, and T. P. Tolbert and all the negroes who had been helping him were wounded. A mob soon collected and surrounded Tolbert's house, and when his father, who was collector of the port of Charleston, drove up with his nephew he was fired upon and both were wounded. The elder Tolbert set out that night for Charleston, but was arrested at Chester. He was soon released, but was again arrested at Columbia, charged with inciting riot. He was committed to the Penitentiary, the authorities giving as a reason for not bringing him to court for examination that the First Regiment of South Carolina Volunteers were just about to be mustered out and might join a lynching party if one were proposed. Later in the month he was examined and discharged, no evidence being found to sustain the charge. R. R. Tolbert was obliged to leave his home and remove his family. During the early rioting several negroes are reported to have been killed; five more were tied to a log together and shot to death; and two more were found dead in a pasture. Others were killed before the end of the troubles, which lasted some days. Three white men were shot from ambush and wounded. A party of lynchers were dissuaded from going to kill T. P. Tolbert only on the representation that he was mortally wounded. The authorities at Washington made inquiry into the attack upon the collector of the port of Charleston, but as it appeared that he was not at the time engaged in the duties of his Federal office, it was decided that there was no ground for Government interference.

Legislative Session.—The annual session of the Legislature extended from Jan. 11 to Feb. 16. Lieut.-Gov. McSweeney presided in the Senate, and Speaker Frank B. Gary in the House.

John L. McLaurin, who was the choice of the people for United States Senator at the primaries, Aug. 31, 1897, was formally elected to the office. Chief-Justice McIver was re-elected, and the other officials chosen were:

John Pickens Derham, Comptroller General; Marion R. Cooper and J. O. Haselden, Members State Board of Control; W. O. Tatum and S. H. P. Garris, Members Penitentiary Directory.

The number of acts and resolutions passed was 206, the majority of which were of local interest only.

An act was passed requiring railroad companies to furnish separate first-class coaches or separate apartments divided by substantial partitions for white and colored passengers, providing that equal accommodations be supplied to all paying first-class fare. The penalty for violating the provisions of the act is a fine of \$300 to \$500. It does not apply to nurses on trains, nor to narrow-gauge roads, or to relief trains in case of accident, nor to through vestibule trains, nor to officers or guards transporting prisoners, nor to prisoners being so transported; and it is further required that a second-class car shall be attached to each train in which any person paying second-class fare may ride. Railroad companies were made liable to penalty for not posting schedules of rates. A lien on railroads for payment for labor and materials used in their construction was provided for.

The powers of the Railroad Commission were extended over telegraph and express companies, which are to pay a proportionate part of the salaries of the commissioners. Charges between points within the State are subject to regulation by the commission. Telephone companies may not discriminate unreasonably between their patrons in different localities.

An act to provide for taxation of telegraph, telephone, freight, car and express companies, copartnerships and corporations doing business in the State, provides that taxes shall be levied on that proportion of the total value of shares plus the mortgage indebtedness that the length of the line bears to its total length.

The insurance law was amended so that companies and associations transacting business in the State must have at least \$100,000 of surplus or capital, or file with the Comptroller General the certificates of securities worth at least that sum, or, in the absence of such capital deposit, then to deposit with the State Treasurer of South Carolina valid securities aggregating \$10,000, or a bond for said amount made by a solvent surety company, which bond shall be conditioned to pay any judgment entered up in any court of competent jurisdiction in this State upon a policy of insurance issued to any citizen of this State by any such company.

An act for regulating the government of counties changes the entire method in most of the counties; in some of them the method is already in use.

An act to regulate the rate of interest upon contracts arising in the State for the use of money or other commodity, provides that no greater interest than 7 per cent. shall be charged either by way of straight interest, discount or otherwise, except upon written contracts, wherein, by express agreement, a rate of interest not exceeding 8 per cent. may be charged.

To facilitate the settlement of estates, it was provided that executors or administrators may pay a legacy, after two years from the time it becomes due, to the judge of the probate court by whom the letters testamentary were granted, if they show to his satisfaction that they are unable to ascertain the whereabouts of the legatee. The amount so paid

shall be protected by the official bond of the judge, and shall be held for the legatee subject to the order of the probate court or any court of competent jurisdiction.

Other enactments were:

Allowing county auditors to destroy original tax returns after five years.

Allowing cities and towns to collect taxes in installments.

Requiring emigrant agents to pay \$500 annually for license to operate in any county.

Amending the laws relating to distress for rent.

Providing that contracts secured by mortgages on real property in the State must be governed by the laws of the State without regard to the place named for their execution.

Allowing only 25 cents a day for dieting prisoners in jail in Charleston and Aiken Counties.

Providing a penalty for the manufacture or sale of adulterated drugs, food, or drinks; the Board of Health may exempt articles and is to appoint inspectors and chemists to enforce the law.

Amending the law on fertilizers so that they are to be branded high, low, or standard grade, according to the percentage of certain ingredients contained.

Authorizing the Secretary of State to renew charters, except of railway, canal, and turnpike corporations, granted by special acts.

Amending the antitrust law so as to make it cover tariffs, tolls, rates, premiums, and prices, instead of prices only.

Making it unlawful to manufacture liquor within two miles of any church or school.

Giving power to the colleges of the State to confer the degree of licentiate of instruction for a course of study approved by the Board of Education, which shall entitle the student to a certificate as teacher for public schools.

Requiring (instead of empowering as heretofore) county boards of education to set aside not more than \$500 to provide text-books at cost. No educational institution receiving money from the Free School fund may use a text-book disapproved by the State board.

Setting aside the third Friday of November as Arbor Day.

Making the law relative to outlawing of liens on real estate apply also to mortgages executed prior to 1879.

Requiring jurors to be drawn publicly.

Providing that sheriffs and their deputies may arrest without warrant for violation of criminal laws, committed in their view, at the time of violation or immediately thereafter; and any person may arrest on view of a larceny committed.

Making the embezzlement of public funds a felony and prescribing a penalty.

Declaring June 3, the birthday of Jefferson Davis, a public holiday.

Political.—State officers were to be elected in November, but the interest centered in the Democratic primaries, which practically settled the whole result. In the first primary there were seven candidates for the nomination for Governor—Messrs. Ellerbe, Featherstone, Tillman, Schumpert, Watson, Archer, and Whitman. The contest in the second primary, Sept. 13, was between the two standing highest in the first—Gov. Ellerbe and C. C. Featherstone—and resulted in the choice of Gov. Ellerbe by a vote of 37,723 to 33,271. This was a victory for the dispensary system, which Gov. Ellerbe favors, Mr. Featherstone being in favor of prohibition. The other State officers placed upon the Democratic ticket by the result of the primaries were: Comptroller General, John P. Derham; Secretary of State, Marion R. Cooper; Adjutant General, J. W. Floyd;

Attorney-General, G. D. Billinger; Superintendent of Education, J. J. McMahan; Railroad Commissioner, C. W. Garris. The Lieutenant Governor and the Treasurer were renominated without opposition.

All these officers were elected in November. The seven members of Congress from the State are all Democrats, as are all the members of the State Legislature except one member of the House, who is a Republican.

SOUTH DAKOTA, a Western State, admitted to the Union Nov. 3, 1889; area, 77,650 square miles; population, according to the census of 1890, 328,808. Capital, Pierre.

Government.—The following were the State officers during the year: Governor, Andrew E. Lee, Populist; Lieutenant Governor, Daniel T. Hindman, Republican; Secretary of State, William H. Roddle, Republican; Treasurer, K. G. Phillips, Republican; Auditor, Henry E. Mayhew, Republican; Attorney-General, Melvin Grigsby, Populist; Superintendent of Public Instruction, Frank Crane, Republican; Commissioner of Public Lands, John L. Lockhart; Railroad Commissioners, W. T. La Follette, Alexander Kirkpatrick, W. H. Tompkins; Insurance Commissioner, J. H. Kipp, succeeded temporarily in February by T. H. Ayers, and in March by L. C. Campbell; Oil Inspectors, Messrs. De Woody and Dowdell; Chief Justice of the Supreme Court, Dighton Corson, Republican; Associate Justices, Dick Haney and Howard G. Fuller, Republicans; Clerk, Miss Jessie Fuller.

Finances.—The State debt Jan. 1, 1897, was \$1,238,300; July 1, 1898, it was \$862,300. It was still further reduced by the end of the year.

The Legislature of 1897 made appropriations aggregating \$96,175 less than those of the preceding one; and the income from license, insurance, and oil-inspection fees was \$140,420 greater.

The tax levy this year was fixed at 8 mills, 2 for the general fund and 1 for the bond interest and sinking funds. A levy of 3.2 mills was made on telegraph, telephone, express, and sleeping-car companies, which is in lieu of all other taxes in the State.

Valuations.—The total valuation of the State for assessment was placed by the board in August at \$118,580,582, of which \$9,639,814 is corporation property. The number of cattle returned was an increase over the returns of 1897, as were also the numbers of horses and sheep; there was a small decrease in the number of hogs. The values of the different kinds of personal property by classes are: Cattle, \$6,923,678; horses, \$802,407; sheep, \$503,064; hogs, \$384,325; mules, \$71,412; vehicles, \$671,086; money and credits, \$726,170; household furniture, \$722,873; stocks and shares, \$1,202,854; all other, \$2,780,209. The valuation of corporation property is thus divided among the different classes: Railroads, \$328,053; telegraph, \$150,140; telephone, \$72,221; express companies, \$78,400; sleeping cars, \$11,000.

Military.—The strength of the National Guard of the State in April was 1,100. Under the first call for volunteers, the State's quota, as apportioned by the War Department, was 780; but it furnished a regiment of infantry and five companies of Grigsby's cowboy cavalry regiment—about 1,350 in all. The cost of raising and mobilizing the First Regiment was given as about \$14,000. The quota under the second call was 1,110. Men were already enrolled in twelve companies, a part of which were drilled and ready to respond to the call. The First Regiment was sent to Manila.

Banks.—At the close of business, Feb. 15, a statement of the condition of the 26 national banks showed that they had increased their loans and

discounts since December, while the individual deposits and the average reserve were decreased. The loans and discounts were \$3,322,287; the individual deposits, \$4,098,906; the average reserve, 32.17 per cent. The holdings of gold coin were \$304,955, an increase of \$17,000.

Industries and Products.—There are 145 creameries in the State, and the yearly output of butter from its dairies is worth about \$3,000,000.

The wool product was given as 2,060,484 pounds.

The wheat product was estimated at about 36,000,000 bushels.

The gold output of the Black Hills region was estimated at \$8,000,000. The total earnings of the Homestake for the year ending June 1 were \$2,494,874.53.

A natural-gas well at Pierre has been taken by the city and steps have been taken for the sinking of another.

Public Lands.—The annual sale of school lands, completed in April, disposed of 15,457 acres at an average price of \$13 an acre. The total sales of school lands, including those of this year, are 161,142 acres, and the price averages a little less than \$14 an acre.

The forest reservations, which are permanently withdrawn from settlement for the purpose of preserving the timber and protecting the sources of the streams, cover 967,680 acres.

Charges against Officials.—The Governor removed the Insurance Commissioner in February, assigning as a reason that his deputy had been pursuing the methods of C. H. Anderson, former insurance examiner, and had collected money illegally from companies; and that the commissioner did not compel restitution and attempted to justify the action of his deputy. He refused to resign and the Supreme Court decided against him. The State has cases in court against ex-Auditor Hipple and Insurance Examiner Anderson.

In April the public examiner filed a report in regard to the case of Joseph Freudenfeld, who was treasurer of the Board of Regents of Education from 1891 to 1894, when he resigned, and declared that on account of the failure of the Farmers' and Merchants' Banks, of Plankinton, and the Chamberlain National Bank he could not turn in the funds due the State.

A settlement was effected by the board, in which \$3,900 was accepted from Freudenfeld and his bondsmen in full for a shortage of \$9,450. It has been lately charged that the losses by bank failures did not cover all the shortage. This called up the investigation, and the report shows a shortage of \$3,897 still remaining after bank shortages are accounted for.

From the investigations of the public examiner it appears that the State Treasurer, K. G. Phillips, who was the Republican candidate for Governor, has been receiving interest upon State funds deposited in banks which he has not turned into the State treasury. In his message the Governor estimates the total of the daily average balance of the State Treasurer in various banks the past two years at \$370,678.41, and computing the interest at 4 per cent., which is the rate received from the one bank which has been investigated, he says that the Treasurer is now in default to the State in the sum of \$52,653.86 on the interest deals. The matter was placed in the hands of the Attorney-General, with instructions to prosecute and secure the return of the interest to the State; but he reported that he found no law to cover the case.

Court Decisions.—The act of 1897 providing that decisions of the circuit court in actions to recover money or property less than \$75 shall be final, was declared unconstitutional by the State Supreme

Court, because it violates the article of the Constitution requiring that laws relative to courts shall be general and of uniform operation throughout the State. This law does not include in its provisions certain county courts having concurrent jurisdiction with circuit courts.

In a decision in October the same court held that personal taxes are a lien from the date of filing.

Political.—State officers were chosen at the November election, as well as the Legislature and the two members of Congress.

The State Central Committee of the People's party, in deciding upon the time and place for the State convention, considered a resolution to ask the Democrats and Free-Silver Republicans to hold their convention at the same time and place. This met with some opposition from the Middle-of-the-Road Populists, and it was finally modified so as to invite all opposed to the gold-standard and gold-worshipping Republican party to unite with the Populists in the campaign.

The Democratic State Committee appointed a convention at the same time and place, and passed the resolution: "It is hereby declared to be the sense of this committee that all the forces of the State opposed to the principles advocated by the Republican party as at present organized should co-operate in the next campaign."

The Free-Silver Republicans followed with the resolution:

"Whereas the State Central Committee of the People's party assembled at Huron invited co-operation, the Silver Republican party in the approaching campaign, in response to the same, hopes that co-operation of all forces supporting the reforms urged by the People's Democratic and Silver Republican parties in the campaign of 1896 may be secured."

The three conventions met, and agreed upon a plan of fusion.

The platforms were in accord, all favoring free coinage at 16 to 1, opposing bond issues, demanding the passage of the free-homes bill, favoring Government issue of all money, approving the war, denouncing injunctions by Federal courts, and calling for the initiative and referendum, the nomination of United States senators by convention, and public ownership of public utilities.

The platform of the Free-Silver Republicans said:

"We are opposed to the present pooling and trust-fostering policy of railroad management, whereby railroads charge exorbitant rates for transporting public necessities over public highways that should properly belong to Government, so that they may pay interest and dividends on a fictitious valuation annually increased by larger bonded capitalization.

"We heartily commend and indorse the reform forces in the recent Legislature for the enactment of the present railroad law, thus redeeming the pledge made in the campaign of 1896; and we indorse the course of the present Railroad Commission in the courageous struggle it is making for the establishment of a reasonable maximum freight and passenger rate, in conformity with the provisions of that law.

"We denounce the manipulators and managers of the Republican party for their evident sympathy and covert support of the trusts and combines which have been formed to control the price of nearly every article of human necessity. The toilers and producers of the nation under the present system are forced to sell their labor and their products in competition with the whole world, and at the same time to purchase their necessities at such prices as the trusts may mercilessly establish.

"We are in favor of Government postal savings banks, which will prevent unscrupulous banking

organizations from swindling honest depositors of their surplus earnings; and we also favor a Government postal telegraph system, which will prevent telegraph monopolies from controlling the transmission of commercial and public thought at extortionate rates."

The resolutions favored also a law making railroads and other corporations liable for injuries to employees resulting from negligence of their co-employees, a uniform system of text-books for public schools, and the purchase of supplies of State and county officers from dealers within the State.

The Populist platform had among its declarations the following:

"We regard the life-tenure system in our Federal judiciary as subversive of liberty, and we demand the election of members of the United States Supreme Court for stated terms by direct vote of the people.

"We recommend that at the State convention of the People's party to be held in 1900 a candidate for United States Senator be nominated, to be voted for by the Legislature elected by the party.

"We favor the State taking proper steps looking to the publication of all necessary school text-books, the same to be furnished school patrons at cost.

"We demand an equitable tax upon the franchises and property of railroad and other corporations, and we denounce the majority of the State Board of Equalization for its refusal to assess railroad property on the same basis as that of the citizens of the State."

Among the resolutions of the Democratic Convention were these:

"We congratulate the people of this State upon the splendid legislation for the control and regulation of freight and passenger tariffs enacted by the fusion forces in the last Legislature, and we commend the earnest and persistent efforts of our Board of Railroad Commissioners in upholding said law, and in seeking to enforce it. We arraign and denounce the Republican party in the State for its encouragement of the extreme and unreasonable methods resorted to by the railway companies to defeat the successful enforcement of this law.

"We favor the enactment of laws in behalf of laboring classes, regulating the employment of women and children, limiting the hours and days of labor, regulating labor contracts, providing for compulsory arbitration of labor disputes, the abolition of government by injunction, and compelling employers to take better precautions for the safety, health, and comfort of their employees. We favor the repeal as to railroad corporations of the fellow-servant rule as embodied in the statutes of this State.

"We are unalterably opposed to the convict labor of the State entering into competition with the paid labor of the State.

"We favor the enactment of a graded income tax so adjusted as to make those who are best able bear the expenses of government.

"We favor the establishment of Government savings bank under a properly regulated postal savings system.

"We favor the publication by the State at its own expense of all the text-books for use in its public schools, and the furnishing of such text-books to the school children free of charge.

"We heartily indorse the action of the Democratic minority in Congress in its firm stand against the policy of the Republican party in its effort toward imperialism through colonial expansion."

The ticket follows: For Governor, Andrew E. Lee; Lieutenant Governor, F. C. Robinson; Secretary of State, George Sparling; Treasurer, Maris Taylor; Attorney-General, C. S. Palmer; Auditor,

Hugh Smith; Superintendent of Public Instruction, L. F. Kintz; Land Commissioner, John Scollard; Railroad Commissioner, W. H. Tompkin; Representatives in Congress, John E. Kelley, Freeman Knowles.

The Republican State Convention met at Mitchell, Aug. 24. The platform declared in favor of protection and the gold standard, approved the annexation of Hawaii, urged the extension of civil service reform, declared against corporations and trusts, favored internal revenue to compel corporations to bear their share of taxation, postal savings banks and postal telegraph system, and the Nicaragua Canal, pledged the party's support to the Railroad Commission in carrying out the rate fight, and suggested that Republicans study the initiative and referendum. A resolution favoring the purchase of supplies from State institutions was adopted.

The candidates were: For Governor, Kirk G. Phillips; Lieutenant Governor, J. T. Kean; Secretary of State, W. H. Roddle; Treasurer, John Schamber; Superintendent of Schools, E. E. Collins; Auditor, J. D. Reeves; Land Commissioner, David Eastman; Attorney-General, John L. Pyle; Railroad Commissioner, William G. Smith; Members of Congress, R. J. Gamble and C. H. Burke.

The candidates of the Prohibition party were: For Governor, K. Lewis; Lieutenant Governor, F. J. Carlisle; Secretary of State, G. A. Grant; Treasurer, H. H. Curtis; Auditor, J. R. O'Neil; Superintendent of Public Instruction, Florence Alguire; Commissioner of Schools and Public Lands, Gust. A. Johnson; Railroad Commissioner, P. H. Olufson; Representatives in Congress, A. Jamison and M. D. Alexander.

The official count of the election returns showed that the fusion candidate for Governor, A. E. Lee, had been elected by 37,319, against 36,949 for K. G. Phillips, the Republican candidate, and 891 for Lewis, Prohibition. The remainder of the Republican State ticket had pluralities over the fusion candidates of 4,000 to 5,000. Both Representatives in Congress are Republicans, and the Legislature will stand: Republicans in the Senate 28, in the House 59; Fusionists in the Senate 17, in the House 28. Republican majority on joint ballot, 42.

Steps were taken toward a contest by the defeated candidate for the office of Governor, but apparently the contest was abandoned.

Constitutional Amendments.—Three proposed amendments to the State Constitution were submitted to vote at the election, and two of them were carried.

The first was to amend the section prescribing qualifications of voters by striking out the word "male," thus giving the ballot to women. It was rejected by 3,285 majority.

The second was to add an article to the Constitution as follows:

"ARTICLE XXVII, SECTION 1.—The manufacture and sale of intoxicating liquors shall be under exclusive State control, and shall be conducted by duly authorized agents of the State, who shall be paid by salary and not by commissions. All liquors sold shall be first examined by a State chemist and the purity thereof established.

"Sec. 2.—The Legislature shall by law prescribe regulations for the enforcement of the provisions of this article and provide suitable and adequate penalties for the violation thereof."

This is the system introduced a few years ago in South Carolina.

The amendment was carried by a majority of 1,643. The question arose whether the adoption of the amendment had the effect of repealing the license law; the Attorney General gave his opinion that it had not, but that the license law would con-

tinue in force till the Legislature should prescribe means for carrying the amendment into effect.

The third amendment was to make Section 1 of Article iii of the Constitution read as follows:

"The legislative power of the State shall be vested in a Legislature which shall consist of a Senate and House of Representatives, except that the people expressly reserve to themselves the right to propose measures, which measures the Legislature shall enact and submit to a vote of the electors of the State; and also the right to require that any laws which the Legislature may have enacted shall be submitted to a vote of the electors of the State before going into effect (except such laws as may be necessary for the immediate preservation of the public peace, health, or safety, or support of the State government and its existing public institutions. Provided, that not more than 5 per centum of the qualified electors of the State shall be required to invoke either the initiative or the referendum. This section shall not be construed so as to deprive the Legislature or any member thereof of the right to propose any measure. The veto power of the executive shall not be exercised as to measures referred to a vote of the people. The enacting clause of all laws approved by vote of the electors of the State shall be, 'Be it enacted by the people of South Dakota.' The Legislature shall make suitable provisions for carrying into effect the provisions of this section."

This amendment was carried by a majority of 7,833. It is the first attempt to establish the initiative and referendum as a part of the law-making process of a State.

SPAIN, a constitutional monarchy in southwestern Europe. The legislative power is vested in the Cortes, consisting of a Senate of 360 members and a Congress of 432 members. Of the Senators half are life and official members, including the royal princes, grandees of Spain, having an income of 60,000 pesetas, or francs, and the superior functionaries of state, and half are elected for five years by corporate bodies and the highest taxpayers. The members of the Congress, or Chamber of Deputies, are elected for five years by electoral colleges in the proportion of 1 deputy to 50,000 of population. All male Spaniards, twenty-five years of age or over, possess the electoral franchise.

The reigning King is Alfonso XIII, born May 17, 1886, who at his birth succeeded his father, Alfonso XII. During his minority his mother, Maria Christina, daughter of Karl Ferdinand, Archduke of Austria, acts as Regent.

The Cabinet of ministers, formed on Oct. 4, 1897, was composed as follows: President of the Council, Praxedes M. Sagasta; Minister of Foreign Affairs, Pio Gullon; Minister of Justice, C. Groizard; Minister of the Colonies, S. Moret y Prendergast; Minister of the Interior, F. R. Capdepon; Minister of War, Gen. M. Correa; Minister of Marine, Rear-Admiral Bermejo; Minister of Finance, Lopez Puigcerver; Minister of Public Works, Commerce, and Industry, Count Xiqueña.

Area and Population.—Spain has an area of 197,670 square miles. The population at the census of 1887 was 17,565,632, including 9,694 at the convict stations of Ceuta, Peñon de Velez, and Melilla, on the African coast.

Finances.—The ordinary revenue in 1896 was 766,231,751 pesetas, and the expenditure 788,200,758 pesetas. In the budget for 1899 the revenue is estimated at 865,816,890 pesetas, of which 297,360,810 pesetas come from direct taxes, 305,273,000 pesetas from customs and indirect taxes, 132,696,024 pesetas from stamps and *régie*, 24,787,056 pesetas from national property, and 105,700,000 pesetas from loans. The ordinary expenditures are estimated at

868,479,417 pesetas, of which 9,250,000 pesetas are for the civil list, 1,638,065 pesetas for the Cortes, 399,236,677 pesetas for the public debt, 1,614,651 pesetas for judicial expenses, 61,749,730 pesetas for indemnities and pensions, 980,833 pesetas for the presidency of the Council of Ministers, 54,748,649 pesetas for the Ministry of Pardons and Justice, 145,929,521 pesetas for the Ministry of War, 25,190,539 pesetas for the Ministry of Marine, 28,381,198 pesetas for the Ministry of the Interior, 80,728,570 pesetas for the Ministry of Public Works and of Public Instruction, 18,659,467 pesetas for the Ministry of Finance, 34,560,528 pesetas for the collection of revenue, and 875,000 pesetas for the colony of Fernando Po.

The extraordinary revenue for six years is estimated at 236,344,883 pesetas, of which 44,920,966 pesetas are required for repayments, 58,000,000 pesetas for the army, 71,175,678 pesetas for the navy, and 62,248,239 pesetas for railroads. In the revised budget the revenue was estimated at 866,014,869 pesetas from ordinary sources, and the expenditure at 865,508,774 pesetas.

The consolidated debt in 1897 amounted to £183,967,000 sterling, extinguishable debt to £66,225,000, Treasury loans to £14,574,000, and the floating debt to £18,280,000; total, £283,046,000. During the nine financial years ending with 1897, Treasury bills amounting to 464,812,000 pesetas were issued. For the expenses of suppressing the Cuban insurrection money was raised by means of Cuban bonds, customs bonds, and delegations to the amount of 1,900,000,000 pesetas, or £76,000,000.

The Army.—The continental army is divided into 8 corps d'armée, containing 15 divisions of infantry and 2 divisions and 4 brigades of cavalry. There are besides 2 divisions of infantry kept in the islands, 1 in the Balearic Isles and 1 in the Canaries, and 1 at Ceuta and 1 brigade at Melilla. The corps d'armée are composed of 56 regiments of infantry of 2 battalions, each battalion numbering 23 officers and 326 men in time of peace, and in time of war 27 officers and 1,000 men; 5 brigades of rifles, containing 20 battalions of 23 officers and 716 men, which number in war is increased to 27 officers and 1,001 men; 28 regiments of cavalry of 2 squadrons, the squadron numbering 5 officers and 100 men in peace or 150 in war; 17 regiments of field artillery, each of 4 mounted batteries of 6 pieces, the battery numbering 4 officers and from 71 to 98 men; 13 battalions of 3 companies of fortress artillery; 1 regiment of siege artillery; 4 regiments of sappers; 1 regiment of pontonniers; 1 battalion of railroad troops; 1 battalion of telegraphists; 1 brigade for topographical service; 1 section of laborers; 7 depots of artillery; 7 depots of engineers; 16 companies of administrative troops; and 16 companies of sanitary troops. Outside of the formations there are 1 regiment of field artillery and 4 batteries, containing 13 companies, of fortress artillery.

The effectives of the continental army according to the decree of July 9, 1898, were 63,991 infantry, 14,386 cavalry, 12,063 artillery, 5,539 engineers, 1,500 administrative troops, 901 sanitary troops, 1,296 royal guards, etc., 14,697 gendarmes, and 14,186 customs guards; total, 128,559. The war strength was estimated at 132,000 infantry, 17,156 cavalry, 12,166 artillery, 11,027 engineers, 11,140 administrative troops, and 483 sanitary troops; total, 183,972 men, with 14,250 horses and mules and 590 guns.

The Navy.—The ironclad fleet in 1898, after the conclusion of the American war (see UNITED STATES), consisted of 1 turret ship, the "Pelayo," of 9,900 tons; 3 armored cruisers, the "Cardenal Cisneros," "Carlos V," and "Princesa de Asturias"; 2 old

frigates, the "Numancia" and "Vitoria"; and 1 monitor, the "Puigcerda." The unarmored vessels included 11 cruisers, the "Alfonso XII," "Alfonso XIII," "Aragon," "Conde de Venadito," "Infanta Isabel," "Isabel III," "Lepanto," "Marques de Ensenada," "Navarra," "Nueva España," and "Quirós"; 12 torpedo gunboats; 2 first-class gunboats; 3 torpedo-boat destroyers, the "Audax," "Osado," and "Proserpina"; and 11 first-class torpedo boats. There were under construction 1 ironclad, the "Pedro d'Aragon," of 6,840 tons and 13,000 horse power, with 40 guns and 2 torpedo tubes; 1 armored cruiser, the "Cataluna," of 7,000 tons and 15,000 horse power, with 24 guns and 7 torpedo tubes; 3 cruisers, the "Isabel la Católica," "Reina Regente," and "Rio de la Plata"; and 1 torpedo gunboat.

Commerce.—The total value of the imports in 1896 was 909,589,000 pesetas, and of the exports 1,021,252,000 pesetas. The imports of cotton were 68,801,000 pesetas in value; coal, 50,830,000 pesetas; timber, 36,070,000 pesetas; tobacco, 32,840,000 pesetas; wheat, 35,616,000 pesetas; salt fish, 24,371,000 pesetas; animals, 23,192,000 pesetas; machinery, 26,885,000 pesetas; chemicals, 22,858,000 pesetas; hides and skins, 22,541,000 pesetas; sugar, 17,180,000 pesetas; iron, 22,127,000 pesetas; ships, 18,163,000 pesetas; coffee, 17,749,000 pesetas; wool, 12,879,000 pesetas; silks, 10,746,000 pesetas; woolen goods, 8,840,000 pesetas; cacao, 11,995,000 pesetas; linen yarn, 8,728,000 pesetas; petroleum, 7,187,000 pesetas; silk, 7,519,000 pesetas. The exports of wine were 144,459,000 pesetas in value; iron, 59,590,000 pesetas; lead, 49,829,000 pesetas; cotton goods, 52,123,000 pesetas; copper, 48,600,000 pesetas; oranges, 40,908,000 pesetas; boots and shoes, 24,309,000 pesetas; animals, 27,183,000 pesetas; cork, 31,564,000 pesetas; raisins, 14,966,000 pesetas; wool, 17,177,000 pesetas; wheat flour, 21,975,000 pesetas; almonds, 10,189,000 pesetas; hides and skins, 12,325,000 pesetas; grapes, 7,762,000 pesetas; paper, 9,659,000 pesetas; quicksilver, 8,413,000 pesetas; esparto grass, 6,954,000 pesetas.

The value, in pesetas, of the commerce with the different countries and colonies, in 1896, is shown in the following table:

COUNTRIES.	Imports.	Exports.
France	217,700,000	282,500,000
Great Britain	161,900,000	234,300,000
Germany	44,100,000	9,400,000
Belgium	40,500,000	17,700,000
Portugal	41,100,000	41,500,000
Sweden and Norway	22,900,000	2,700,000
Russia	48,500,000	900,000
Roumania	9,000,000	.....
Italy	21,500,000	10,100,000
Turkey	4,700,000	.....
Netherlands	4,300,000	10,400,000
United States	78,400,000	18,800,000
Cuba and Puerto Rico	140,000,000	299,000,000
Argentine Republic	8,700,000	10,100,000
Philippine Islands	29,000,000	41,800,000
Morocco	11,600,000	1,200,000
Other countries	42,300,000	43,400,000
Total	909,600,000	1,023,300,000

Of the total trade, excluding the precious metals, France had 25.4 per cent., Great Britain 23.9 per cent., Cuba 10 per cent., the United States 5.4 per cent., and all other countries 35.3 per cent. The imports from the United States consisted of lumber and cotton. After the lapse of the commercial treaties in 1892 the foreign trade went through great fluctuations, and when exports recovered from the loss of the old markets they were different and less beneficial to the producer. Owing to the colonial wars coined money was exported in large quantities. The chief exports in the order of their importance in 1896 were wine, 15 per cent. of the total value; silver money, 14.8 per cent.; minerals,

10.6 per cent.; metals, 9.6 per cent.; fruit, 8.8 per cent.; and cotton cloth, 5.4 per cent. Manufactured goods are of small importance compared with agricultural and mineral products. The chief imports are codfish, cacao, petroleum, wheat and other grains, spirits, sugar, coffee, and flour, which together produce 45 per cent. of the total duties on imports. The high tariff on raw materials prevented the growth of the manufacturing industries which would otherwise have been stimulated by the new import duties on manufactured goods. Practically all the textile goods exported went to the colonies, and this was approximately true of the boots and shoes and other manufactured goods.

Navigation.—In 1897 there were 9,668 Spanish vessels, of 6,612,378 tons, and 9,070 foreign vessels, of 7,622,876 tons, entered at Spanish ports, and 8,233 Spanish vessels, of 6,294,397 tons, and 9,119 foreign vessels, of 7,920,351 tons, cleared.

The merchant navy in 1898 numbered 1,145 sailing vessels, of 164,504 tons, and 436 steamers, of 841,951 tons.

Communications.—There were 8,020 miles of railroad in operation in 1897. The post office in 1896 carried in the internal service 83,068,000 letters, 768,000 post cards, 49,106,000 newspapers and circulars, and 165,000 money letters of the total value of 183,440,000 pesetas; in the international service, 20,863,000 letters, 462,000 post cards, 20,674,000 newspapers and circulars, and 44,000 money letters of the value of 14,680,000 pesetas; in transit, 244,000 letters and 53,000 newspapers and circulars. The receipts were 23,952,026 pesetas; expenses, 12,579,306 pesetas.

Bread Riots.—Although the wheat crop of 1897 was larger than the average, there was great scarcity of grain in the winter, when the heavy customs duties prevented the inflow of supplies from abroad. After the surcharge was imposed in 1895 the duty on wheat was 10.50 pesetas per 100 kilos and on flour 17.30 pesetas, yielding in that year and the next 17 per cent. of the whole customs revenue. Before the end of February bread riots occurred in Salamanca. When war broke out between Spain and the United States the food question disturbed the country more than the military danger. The sudden rise in the price of wheat occasioned desperate outbreaks in all parts of the country. In the beginning of May the Government prohibited the exportation of wheat, flour, rye, corn, and potatoes and suspended the import duties on those articles. The troops were employed in quelling bread riots at Talavera and Velazo, outbreaks of the fisherfolk of Gijón, striking workmen of Murcia, and coal miners of Oviedo, disturbances in Valencia, Cáceres, and other places. The intermission and subsequent reduction of the corn duties did not suffice to check the rise in the price of flour or the growing distress and consequent unrest of the population. Disorders occurred at Cadiz, Jaen, and Albacete. At Martos and other places mobs of men and women destroyed the *octroi* offices. At Linares the police fired into tumultuous crowds, killing many persons.

Martial Law.—When the news came of the Spanish defeat in the Philippines, political dangers complicated the situation rendered difficult already by the lack of employment and dearth of food and the discontent of the people on account of the conscription of the young men, who for years had been drained from the country to perish of tropical diseases in Cuba and the Philippines, and were now taken in greater numbers to fight the Americans. Gen. Weyler attacked the Government for its reversal of his rigorous Cuban policy and assumed the lead of a party of Conservative malcontents who made revolutionary demonstrations in Madrid

and other cities in the company of the Carlists. These grew alert, active, and turbulent in Valencia and other places where they were numerous. The socialists and anarchists turned the bread riots into political demonstrations. The Republicans were ready to renounce their acceptance of the constitutional monarchy, and in the Cortes Señor Salmeron attributed all the evils from which Spain suffered to the policy of the monarchical parties, which spent millions to maintain an effete *régime* and had not the wherewithal to buy ironclads. On May 3 a state of siege was proclaimed in Madrid. Public meetings and street demonstrations were prohibited, and newspapers were forbidden to publish news regarding military operations without special permission. The governors of the various provinces were authorized to resign their powers into the hands of the military authorities whenever they judged it expedient, and the military commanders were ordered in such case to proclaim martial law at once. This was done at Jaen and Albacete, where bread riots occurred, on May 9, and on the following day at Valladolid and Cordova in consequence of similar disturbances. The state of siege was extended to the whole of Andalusia and Catalonia and to the provinces of Saragossa, Valladolid, Toledo, Coruña, and Madrid. At Logroña, on May 11, women armed with clubs and axes pillaged the provision and flour stores and repelled a charge of cavalry.

Elections to the Cortes.—The Cortes were dissolved by royal decree on Feb. 26 and the elections were fixed to take place for Deputies on March 27, and for Senators on April 10. Except at Bilbao and a few other mining and industrial centers the elections passed off without excitement. The people scarcely showed any interest, and the number of votes recorded was unprecedentedly small. The Government obtained, as usual, an overwhelming majority, electing more than 250 candidates to about 75 Conservatives, 10 followers of Romero Robledo, 25 Republicans, 5 Carlists, and a few independents. From Cuba 21 Autonomists and 9 Conservatives were returned. The senatorial elections resulted in the return of 140 Ministerialists out of 180 candidates.

Session of the Cortes.—When the Cortes assembled on April 25 there was no opposition to any measure necessary to strengthen the hands of the ministers in prosecuting the war. Only Gen. Weyler raised his voice against the bill of indemnity approving the act of the Government in granting autonomous institutions to Cuba. The financial necessities of the Government were the most urgent question. Showing a balance between ordinary revenue and expenditure, the Government obtained an extension for two years of the extraordinary budget established in 1896 and modified in 1897, only the special naval credit was raised from 18,000,000 to 90,000,000 pesetas. An issue of 100,000,000 pesetas of Treasury bonds was authorized in order to provide the money, and these were guaranteed by the Almaden quicksilver mines. To raise means for meeting the expenses of the war the Government was authorized to issue state rentes or Treasury bonds or any form of fresh securities that the military or naval authorities required; to issue new currency notes up to 2,500,000,000 pesetas, protected beyond the previous limit of 1,500,000,000 by a metallic reserve of 50 per cent. or of 66½ per cent. beyond 2,000,000,000 pesetas, though all restrictions were removed in case of extreme necessity; to negotiate for advances with the monopoly companies of matches, tobacco, minerals, and the like; to float a new issue of Treasury bonds bearing such interest as might be agreed upon between the Government and the Bank of Spain; and to convert the external debt held in Spain into internal

bonds, paying in francs from Oct. 1, 1898, only the coupons of bondholders who can prove that they are foreigners already domiciled abroad, all others being paid in ordinary Spanish currency. The Cortes declined to sanction a levy of a year's land and industrial taxes in advance, but authorized a surcharge of 20 per cent. on all taxes except customs duties. An indemnity bill was voted for the revision of the import duty on grain by the Government. Señor Moret, when assailed for his policy of concessions in Cuba and blamed for the military unpreparedness of the Government, said that no amount of foresight could affect the fact that the Americans outnumbered the population of Spain four to one and were fighting close to their base of operations, and that the Spaniards were a fatigued race who once marched over the world as conquerors and now exhibit their glorious cloak full of rents. To the Republicans and Carlists he addressed the following question: "If you do not reform men and ameliorate the social and political education, what could a change of institutions mean? Only one more revolution, one more cause of weakness to the shaken and exhausted body of our common country."

The Cortes, in order to relieve the industrial crisis in Catalonia, suspended the import duty on raw cotton, and in order to encourage blockade-running on the coast of Cuba abolished the differential duties on foreign ships trading between Spain and her colonies. Export duties were imposed on wool and silk to keep these raw materials for the supply of Spanish manufacturers and on minerals as a revenue measure. With the issue of new bank notes the premium on gold rose rapidly, and the people began to demand silver for notes and to draw out their deposits in silver until a serious currency crisis was produced. The rise in exchange had stimulated exportation of raw materials and thereby aggravated the economic crisis.

Reconstruction of the Cabinet.—Although the Cortes approved every war measure that the Cabinet proposed, recriminations for the breakdown of the national defense were unceasing. The attacks made both in the Cortes and outside on the Ministers of War and Marine, as well as on the Colonial Minister, rendered more and more difficult and precarious the tenure of the existing ministry, the members of which were at variance on the question of the ways and means of continuing the war and the advisability of invoking the intervention of the great powers. On May 16 Premier Sagasta tendered the resignation of the entire Cabinet to the Queen Regent, who commissioned him to organize a new ministry, retaining only those of his colleagues who were in favor of fighting out the war to the bitter end. The new Cabinet was announced on May 18, as follows: President of the Council of Ministers, Praxedes M. Sagasta; Minister of Foreign Affairs, F. Leon y Castillo; Minister of War, Lieut.-Gen. M. Correa; Minister of Marine, Capt. R. Aulón; Minister of the Colonies, V. Romero Givón; Minister of Finance, Lopez Puigcerver; Minister of the Interior, F. R. Capdepon; Minister of Justice, C. Groizard; Minister of Public Works, Señor Gamazo. Señor Leon y Castillo suggested that he could serve his country better in his post as Spanish ambassador to Paris, and consequently the portfolio of Foreign Affairs was given on May 24 to J. M. Sanchez y Gutierrez de Castro. Duke de Almodovar del Río. Señor Gamazo, who had entered the Cabinet reluctantly, wanted to leave it when the Minister of Finance opposed an impost on the national debt. Señor Puigcerver declared that the finances of the nation were in a satisfactory condition, assuring payment of all expenses of the war, but affirmed the necessity of increasing all

taxation, including that on agriculture, at least 20 per cent. For the enforced conversion of external into internal bonds the holders were given as partial compensation a premium of 10 per cent. He proposed to convert the floating debt of 543,000,000 pesetas into Treasury bonds. The coupon of the external debt was duly paid in June. After the disaster to Spanish arms at Santiago de Cuba, the Government prepared the country for the eventual loss of the colony which had cost Spain 1,870,000,000 pesetas and more than 100,000 lives since the outbreak of the rebellion in February, 1895. Amid the storm stirred up by the Spanish defeat Señor Sagasta threatened to resign. Public opinion fluctuated so violently that the ministers could not venture either to enter into negotiations for peace or to demand of the nation further sacrifices. The cost of the war was estimated to have been 3,000,000,000 pesetas. When all hope of German, French, or Russian aid had to be abandoned, and when peace seemed the only means of averting internecine conflicts, the Government found sufficient support for the preliminary conditions of peace negotiated through the medium of the French ambassador in Washington. The Cortes were convoked on Sept. 5 to give the necessary constitutional sanction to the protocol before the meeting of the Peace Commission at Paris on Oct. 1. The meeting of the Chamber was attended with tumult and disorder beyond precedent. Not only Republicans and Carlists, but Conservatives and discontented Liberals threatened the ministers with personal violence. In the Senate charges of cowardice and incompetence were uttered against the army officers. Gen. Polavieja charged politicians of both parties with being the cause of the country's misfortunes; Señor Canelejas threw all the blame on the Ministers of War and Marine. The Republicans, Carlists, and followers of Romero Robledo withdrew from the Cortes as an act of protest against the determination of the majority to restrict discussion. The public at large regarded the protocol and the tempest in the Cortes with equal apathy. The press censorship and the suspension of constitutional guarantees were continued. The Senate and the Chamber adopted the peace protocol and authorized the cession of national territory, upon which the brief and stormy session was abruptly closed on Sept. 14. In consequence of scandals brought to light in connection with the administration of Andalusia, Señor Gamazo, on Oct. 23, resigned from the Cabinet and Señor Sagasta assumed temporarily the portfolio of Public Works.

STEEL BUILDINGS. The substitution of steel for stone and brick as a building material has been brought about gradually, being first introduced in large buildings in the lower floors in order to gain space for show windows, etc., which were otherwise restricted in size by the thickness and breadth of the columns of masonry required to support a tall building. Thus it became common to erect business buildings in which most of the stone or brick work began at the second story, being supported usually by columns of cast iron or steel and horizontal steel girders. As demands came to architects for higher buildings, they introduced more steel, and 1890 may be set as the period when American architects began to accept the skeleton steel construction as desirable for buildings more than 125 feet high. Chicago was the first city in which these buildings were received with favor, but New York shortly learned their merits, and within the past five years has outstripped all other cities by the size and number of its towerlike business structures. There are now in New York 6 business buildings that exceed 300 feet in height, 19 that exceed 200 feet, and probably 100 that exceed 125 feet. The list of the principal

ones, with the height in feet above the street level and the number of stories, follows: American Surety Company, 23 stories, 306 feet; American Tract Society, 23 stories, 306 feet; Bank of Commerce, 20 stories, 270 feet; Commercial Cable, 21 stories, 280 feet; Dun, 15 stories, 223 feet; Gillender, 16 stories, roof 219 feet, tower 273 feet; Home Life Insurance Company, 16 stories, roof 219 feet, tower 280 feet; Hudson Realty Company, 16 stories, 206 feet; Ivins Syndicate, 30 stories, roof 350 feet, tower 382 feet; Manhattan Life Insurance Company, 23 stories, roof 242 feet, tower 350 feet; Mutual Life Insurance Company, 15 stories, roof 210 feet, finial 230 feet; Hotel Netherland, 17 stories, 220 feet; New York Life Insurance Company, 12 stories, front 188 feet, tower 270 feet; New York Realty Company, 15 stories, 204 feet; O. B. Potter Trust, 20 stories, 270 feet; Postal Telegraph Company, 13 stories, roof 179 feet, penthouse 193 feet; Pulitzer, 15 stories, finial 309 feet; St. James, 16 stories, 204 feet; St. Paul, 26 stories, 337 feet; Washington Life Insurance Company, 19 stories, 273 feet.

The Masonic Temple is the largest steel building in Chicago, being 20 stories high and 274 feet above the sidewalk. In Philadelphia the tower of the Broad Street railway station is the tallest structure of the kind, reaching 240 feet. The Ames building in Boston is the tallest in New England, being 186 feet. Measurement above the sidewalk does not always give an adequate idea of the size of these great steel structures, as many of them extend from 50 to 80 feet below the sidewalk, in reaching a sure foundation. This means that several of these structures measure more than 450 feet in extreme height, and as the ground plan of several of the larger ones covers about 15,000 square feet, it will be seen that they are capable of containing populations as great as are found in some small cities. The Dun building is the largest in area, being 131 feet front by 608 feet deep, and having 15 stories, giving about 1,000,000 feet of floor space. It is so long that its height of 223 feet does not seem remarkable. The Ivins Syndicate building, 13 to 21 Park Row, is the tallest yet constructed, and the first to outrun the twenties in number of stories. It has a front of 104 feet and a depth of 154 feet.

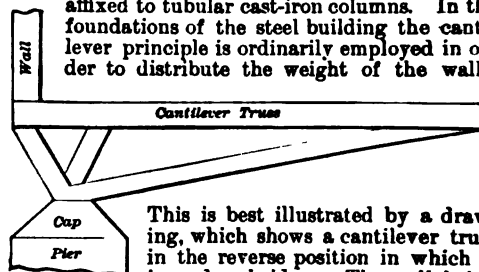
The rapid construction of so many great business buildings has been brought about by a combination of causes, the chief of which was a reduction in the cost of structural steel, and a demonstration that it added to the fireproof qualities of a building. When first introduced in buildings, steel was found to be a dangerous element in case of fire, because of its liability to warp when subjected to heat, such warpage tending to throw down any superstructure of stone, brick, etc., that rested on the steel. This danger has been diminished by covering the steel framework with terra cotta, brick, or some similar non-conductor of heat, thus protecting it in case of fire attacking the woodwork. When properly covered in this manner, the steel skeleton building becomes as fireproof as a building can be made with modern facilities. This was demonstrated in the Nassau Street fire on Feb. 11, 1898, when the Vanderbilt building, a 15-story steel skeleton structure, was exposed to the fire that broke out in the Nassau Chambers, 150 feet distant. The Vanderbilt building is one of the earlier of the steel buildings, and has not the latest fireproof appliances, yet the flames that curled about it and burned all the outer wooden cornices on the upper stories, and much of the interior woodwork also, failed to injure the main structure in any way. The heat was so great that the kalsomine fell, but the walls and floors did not warp, neither did the water that was poured in run through the floors.

Advantages.—A great advantage in the use of steel for construction is the space which is gained by the reduced thickness of the walls. Two feet saved in the thickness of a wall means nearly 600 feet of floor space gained in each of the lower stories of a building 50 by 100 feet. Increased light obtained by putting windows on all sides as the structure rises above its surroundings is another great advantage of the tall steel building, and with this come the advantages of more air and the view obtainable from upper stories. Another reason, not often considered, which has influenced the erection of the great office building, is that its very size and capacity invites tenants because it makes it possible for so many classes of business to find quarters under one roof. The average mammoth steel office building contains a restaurant, a cigar counter, a news stand, a barber shop, a telegraph and district messenger office, a typewriting bureau, stationer and printing office, and other conveniences—all under one roof and within easy reach of every tenant. Of course, the high value of land in the center of a great city does much to influence the erection of a tall building to increase the rental, but the advantage of affording tenants so many conveniences under one roof is probably the largest factor of their commercial success.

Designing.—The construction of the great steel office building requires, as a preliminary, designing by both an architect and a mechanical engineer or bridge engineer. The steel construction and foundation work is very similar to that of bridges, and calls for the same kind of experience as that gained by engineers in the designing of steel truss bridges. The work of the architect is so mixed in with that of the engineer that the two find it necessary to work together in the development of the plans. The size of the structure being determined, it is necessary to begin designing from the top and work downward, because in no other way can they certainly place the beams and girders so as to know that they are properly proportioned for the weight they are to carry. When the tower and superstructure are planned, their weight can be figured out, and the beams of the upper story figured of a size and number to support them properly. Each story, as the plans descend, has to be made a little stouter than the one above, because it has that much more weight to support. By the time the street level is reached, the weight, wind surface, and all such items can be computed. The designers, knowing just what they have to support and being made familiar with the nature of the soil on which the building is to stand, through borings made at numerous points to discover what is below, are in a proper position to decide what is the best character for the foundations. Among the duties of the engineer are the verifying of the actual size of the lot, which might differ slightly from the surveyor's measurements appearing in the deeds. Then he has to determine both the dead load and the live or moving load, the latter requiring twice as much strength of material as the dead load. The law in New York prescribes an allowance for live load which is greatly in excess of that which is actually found in office buildings, and this obliges stronger construction than is really necessary, thus increasing the factor of safety. The engineer must also calculate the wind pressure, usually at 30 pounds to the square foot, and make due allowance therefor in the bracing. He must locate the principal columns, girders, and beams so as to carry the strains according to his calculations, which must be verified at every step.

Construction.—The steel building consists of a skeleton of steel beams and girders made commonly with Z or I sections to resist bending, and riveted

together, knee braces being put in here and there to increase the resistance to wind pressure. Many of the upright members are made in two-story lengths, and the steel work is put up by means of an erecting plant which is usually elevated two stories at a time. From this erecting plant are operated cranes and other hoisting devices, and here are supported the forges used to heat the rivets, which are inserted red hot and fixed in place by pressure or hammering. Sometimes tubular columns of cast iron are preferred to steel columns. Cast iron is stronger than steel or wrought iron in compressional strength, though inferior in most other qualities. The cost of each is about the same. Where steel columns are preferred it is often because their Z or other angular section affords convenient space in which to carry pipes, wires, and the like, as well as giving better opportunity to bolt on or attach any small structures that are not so readily affixed to tubular cast-iron columns. In the foundations of the steel building the cantilever principle is ordinarily employed in order to distribute the weight of the walls.



This is best illustrated by a drawing, which shows a cantilever truss in the reverse position in which it is used on bridges. The wall being made to rest on the extreme edge of the truss, the weight is carried inward so that it centers on the large pier. If the weight were placed directly on the pier it would tend to tip it over; but by this arrangement the weight of a 2-foot wall may be distributed over piers 10 or 12 feet thick. Cantilever girders usually extend the entire width of a building, and some of the largest weigh 80 to 100 tons each. The piers may rest either on piles, on caissons, or on steel grillage. If the soil is hard sand or earth, much saturated with water, bundles of piles may be driven and tied together at the top by beds of cement, and on these the piers can be erected. A mud bottom usually requires a steel grillage which is made of long steel I beams crossed in a bed of cement that fixes the whole so that it becomes like one large plate on which the whole structure may rest. For very large buildings where the foundation rock is 50 to 70 feet below the street, and there is constant danger of undermining adjacent buildings—a condition frequently found on Manhattan Island—the caisson foundation is used. This construction is borrowed from the bridge builder and was first used in making the foundation for the Manhattan Life Insurance Company's building. A caisson or great steel box, open at the bottom and with a door in the top, is let down into the foundations by placing men inside to dig away the earth so that it gradually goes down as the excavation proceeds, with the very least disturbance to the surrounding soil, which is kept in place by the stout sides of the caisson. In this manner the caisson is worked down to the bed rock, which is leveled or stepped to receive it. When it is properly set the workmen withdraw and cement is poured in and allowed to harden, thus forming a great stone block incased in steel and as solid and level as is possible by any known means. A series of these caissons sunk in the foundations serve to support the piers from which the structure rises. As the steel framework is raised, the stone and terra cotta are built on, a common rule being that there shall be at least 8 inches of this on the outside and 4 inches inside to protect the steel. For about 75

feet above the street the stone or other exterior material is so constructed that its weight does not rest on the steel skeleton. To use a builder's phrase, it carries itself. Above the sixth story it becomes necessary to rest the stonework, etc., on the steel framework. The beams used in the floors are usually of I section, carrying between them flat arches of terra cotta. Partitions are made of terra cotta or hollow brick. The floors for halls, etc., are frequently covered with mosaic, the blocks being small stones often colored in patterns, and set in cement with the flat face upward.

Interior Mechanism.—A modern steel office or business building requires a steam plant and an electric plant, besides elaborate plumbing, wiring, and ventilating apparatus. Water tanks have to be provided to serve the upper stories, and these are usually built into the space at the top of the elevator in order to take advantage of the warm air that rises in the elevator shaft, and conduct it about the tank to prevent freezing. Sometimes, as in the American Tract Society building, a cold-water service is arranged by the introduction of a refrigerating plant which circulates cold about the water pipes. The elevators are run by steam power, though often an electric motor forms the actual connection between the steam engine and the operating wire ropes. This permits of the use of an electric storage battery to take the "peak" of the load—that is, serve to deliver additional power where a sudden increased demand is made on the elevators. The engines and dynamos are usually directly connected, and a dynamo is wound to 110 volts to give a current for incandescent light service. In the very latest practice a 220-volt current is used for the more powerful incandescent lamps built for such a voltage. The enormous amount of wiring in these structures may be inferred from the fact that the contracts for the Manhattan Life Insurance Company's building called for about 35 miles of wire. The pipes for gas, water, waste, and ventilation footed up a total of 10½ miles in the same building.

The cost of these structures varies with the elaboration of the details from 25 to 60 cents a cubic foot. In the case of the Pulitzer building the cost is given at \$1,500,000. The time in which such a building can be erected has been much reduced of late, and contracts are made requiring only twelve to twenty months for the completion of an entire mammoth steel building. Some tendency has been manifested by legislatures to restrict the height of these structures, noticeably in Massachusetts. Where they are unrestricted the tendency is to build them higher and higher. This is generally objected to by the owners of contiguous property, as their foundations are undermined and are liable to damage. Such liability has unquestionably been greatly reduced, however, by advances in methods of constructing the foundations.

SUNDAY-SCHOOL CONVENTION, THE WORLD'S. The World's Third Convention of Sunday-School Workers was held in London, beginning July 12. The first of the preceding conventions was held in London in 1889, and the second in St. Louis, Mo., in 1893. The present convention, which considerably exceeded the others in the number of delegates, was attended by about 2,300 members, 300 of whom were from London, 1,500 from the rest of the United Kingdom, 250 from the United States, 20 from Canada, 5 from Newfoundland, and 70 from the Continent of Europe. Addresses of welcome were made by the Marquis of Northampton, president of the British Sunday-School Union and the Ragged School Union, Mr. Edward Towers, and the Rev. John Clifford, D. D., president of the Federation of Free

Evangelical Churches. Mr. Edward Towers was chosen president of the convention. The reports of Sunday-school work in various parts of the world included accounts of Sunday-School Union missions on the Continent of Europe, a description of the work of the Foreign Sunday-School Union, and of the International Union of Primary Teachers organized for study in the United States; the report of a Sunday-school missionary in India, where an executive secretary and funds for a vernacular literature were wanted; a report of progress in Italy, where 15,000 children were gathered in Protestant Sunday schools; and accounts of the work of 901 Sunday schools in Japan, to which 4,000 pupils had been added during the past year. In Europe Sunday-school work was making real but slow progress, and in the countries from which special reports were made the number of pupils had increased 41,000 since 1893. The International Lesson Committee made a report, explaining the method of proceeding in arranging the lesson series, and mentioning some of the difficulties in the way of providing a system that should be satisfactory to every one and in the way of making changes in the system except slowly. The ensuing course of lessons was laid out for six years instead of seven and would present the biographical element in special prominence. About half of the available time would be devoted to a chronological life of Christ and other New Testament subjects. The International Bible-Reading Association was described in a paper relating to it as having 626,000 members and issuing cards in 29 languages. The subjects were considered, in papers read and otherwise, of teachers' private Bible study; the history of training classes for teachers from their beginning in 1848 to the present time; normal classes; a special "dedication service," in which teachers sign a written covenant faithfully to perform certain duties; the "Home Department," in which persons not able to attend Sunday school pursue at home courses of lessons which are marked out for them, and make stated reports of their progress; and grading and management.

SWEDEN AND NORWAY, two kingdoms in northern Europe, united in the person of the sovereign. The throne in both monarchies descends to the heirs of the house of Bernadotte. Affairs common to both are referred to a mixed Council of State. The King is Oscar II, born Jan. 21, 1829, who succeeded Carl XV, his brother, Sept. 18, 1872.

Sweden.—The legislative power is vested in the Riksdag, consisting of the First Chamber of 150 members elected for nine years by the provincial and municipal bodies, and the Second Chamber of 230 members elected for three years, 80 in the towns and 150 in the rural districts, by natives of Sweden who own or farm land of a certain value or pay taxes on 800 kronor of income. The Council of State at the beginning of 1898 was composed as follows: Minister of State, Erik Gustaf Boström; Minister of Foreign Affairs, Count Ludvig V. A. Douglas; Minister of Justice, Per Samuel Ludvig Annerstedt; Minister of War, Baron Axel Emil Rappe; Minister of Marine, Jarl Casimir Eugene Christerson; Minister of the Interior, Julius Edvard von Krusenstjerna; Minister of Finance, Count Hans Hansson Wachtmeister; Minister of Education and Ecclesiastical Affairs, Gustaf Fredrik Gilljam; Councilors of State, Baron Albert Lars Evert Akerhielm and Sven Herman Wikblad.

Area and Population.—The area of Sweden is 172,876 square miles. The population was computed to be 5,009,632 on Dec. 31, 1897, 2,437,926 males and 2,571,706 females. The number of marriages in 1896 was 29,376; of births, 137,833; of deaths, 80,784; excess of births, 57,049. The emigration was 19,551.

and the immigration 7,807. Stockholm, the capital, at the end of 1897 had 288,602 inhabitants; Göteborg, 20,522.

Finances.—In the budget for 1899 the total revenue is estimated at 123,393,000 kronor (1 krone = 28.6 cents). In this sum is included the balance from preceding budgets, amounting to 12,615,000 kronor. The receipts classed as ordinary amount to 22,603,000 kronor, of which 1,694,000 kronor are land taxes, 1,400,000 kronor tonnage dues, 2,200,000 kronor rent of domains, 665,000 kronor personal tax, 10,000,000 kronor railroad profits, 1,510,000 kronor telegraph revenue, 4,000,000 kronor receipts from forests, and 1,134,000 kronor various receipts. The extraordinary sources of revenue yield 80,175,000 kronor, of which 41,000,000 kronor are receipts from customs, 9,925,000 kronor from the post office, 4,400,000 kronor from stamps, 15,500,000 kronor from the spirit duty, 9,000,000 kronor from the sugar duty, 5,600,000 kronor from the income tax, and 750,000 kronor from various sources. The state bank pays out of its profits 2,000,000 kronor.

The total expenditures for 1899 are estimated at 123,393,000 kronor, the same as the revenue. Of these 82,089,724 kronor are ordinary and 28,024,076 kronor extraordinary expenditures. Of those classed as ordinary 1,320,000 kronor are for the royal household, 3,842,450 kronor for justice, 606,750 kronor for foreign affairs, 26,528,460 kronor for the army, 7,164,965 kronor for the navy, 5,756,200 kronor for the interior, 14,222,099 kronor for worship and education, 3,429,450 kronor for pensions, and 19,219,350 kronor for finance, including 2,713,000 kronor for the customhouse, 9,143,600 kronor for the post office, 450,000 kronor for control of excise, 1,510,000 kronor for telegraphs, 1,380,550 kronor for forests, and 4,022,200 kronor for other expenses. Of the extraordinary expenditures, 9,000,725 kronor are for the army and navy, and 19,023,351 kronor for other purposes. The expenses of the debt are 11,588,507 kronor, besides 1,650,000 kronor set aside as a fund for insuring workmen against accidents. The surplus remaining to be carried over to the next budget is 40,693 kronor.

The public debt in 1898 amounted to 238,723,944 kronor, of which 48,759,500 kronor represent an internal loan paying 3.6 per cent. interest, and the remainder foreign loans raised at various times, for the most part at 3½ per cent. interest.

Defense.—The Swedish army is composed of 2 regiments of royal foot guards and 1 of horse guards, 5 regiments, 2 battalions of infantry and 1 battalion of rifles, 4 regiments of cavalry, and the artillery, engineers, and train, all enlisted troops except the line infantry, which contain Indelta troops; the Indelta, consisting of 19 regiments of infantry and 3 regiments of cavalry, the former supporting themselves on allotments of land, the latter paid and kept by the landowners; and conscripted troops, drawn from the whole male population to the number of about 24,000 a year. The men of the regular army are enlisted for two or three years. Its strength is 1,953 officers and 30,889 men, with 38,854 horses and 240 guns.

The navy, which is intended for coast defense only, contains 4 small ironclads of about 1,500 tons displacement, carrying 9.4-inch guns in two turrets; 3 of about 3,000 tons, having 10-inch guns in the turrets and a quick-firing armament; and 3 of 3,300 tons, 2 of them not yet completed, with a stronger secondary battery. There are also 9 gunboats, each carrying a 9.4-inch gun in the bow.

The fortifications on the coast are the fortress of Carlskrona, flanked by Westra Håsholmen and Kungsholmen, and works at Waxholm, and Oscar Fredriksborg defending Stockholm in its vicinity. A commission appointed in May, 1897, has perfect-

ed plans for extending the fortifications at Stockholm, completing those at Carlskrona and forts begun at Carlsberg and on the island of Gothland, fortifying Göteborg and building a fort on the neighboring Vesterberget, and erecting a fortress at Boden, in Norrland, the whole to be finished in ten years at a cost of 21,000,000 kronor.

Commerce.—The commerce in 1896 amounted to 358,315,000 kronor for imports and 340,283,000 kronor for exports. The value of coal imported was 32,581,000 kronor; coffee, 26,759,000 kronor; rye and wheat, 23,264,000 kronor; woolen goods, 16,039,000 kronor; hides and skins, 11,977,000 kronor; machinery, 16,553,000 kronor; woolen yarn, 9,914,000 kronor; iron manufactures, 13,716,000 kronor; cotton, 9,724,000 kronor; petroleum, 7,123,000 kronor; cotton goods, 7,309,000 kronor; tobacco, 7,227,000 kronor; fish, 7,073,000 kronor; wool, 4,422,000 kronor; vegetable oils, 6,156,000 kronor; wood manufactures, 4,512,000 kronor; pork products, 5,408,000 kronor; paper, 3,909,000 kronor; silks, 3,371,000 kronor; wine, 3,555,000 kronor; clothing, 3,087,000 kronor; iron, 3,253,000 kronor. The exports of timber amounted to 131,208,000 kronor; butter, 44,660,000 kronor; machinery, 7,617,000 kronor; iron, 42,187,000 kronor; wood pulp, 14,432,000 kronor; fish, 7,554,000 kronor; matches, 5,830,000 kronor; iron manufactures, 6,771,000 kronor; paper, 6,729,000 kronor; oats, 4,784,000 kronor; live animals, 6,630,000 kronor; glass, 5,100,000 kronor; cotton goods, 3,799,000 kronor.

The values of the trade in 1896 with the different countries are given in kronor in the following table:

COUNTRIES.	Imports.	Exports.
Norway	29,028,000	19,548,000
Russia and Finland	23,267,000	13,337,000
Denmark	45,896,000	42,298,000
Germany	117,516,000	43,694,000
Netherlands	8,777,000	20,140,000
Belgium	11,689,000	12,075,000
Great Britain	96,834,000	144,063,000
France	7,170,000	29,365,000
Portugal	1,994,000	929,000
Spain	1,214,000	2,489,000
Italy	1,425,000	358,000
Africa	188,000	9,318,000
United States	9,092,000	721,000
West Indies	86,000	.....
Australia .....	.....	805,000
Asia	197,000	97,000
Other countries	1,945,000	921,000
Total	358,315,000	340,283,000

Navigation.—There were entered during 1896 at Swedish ports 15,847 Swedish, 2,456 Norwegian, and 14,438 foreign vessels; total, 32,741 vessels, of 7,051,000 tons, of which 12,273, of 2,706,000 tons, were with cargoes. There were cleared 15,884 Swedish, 2,524 Norwegian, and 14,437 foreign vessels; total, 32,845 vessels, of 7,068,000 tons, of which 21,311, of 5,191,000 tons, carried cargoes. Among the vessels entered 15,163, of 5,659,000 tons, among those cleared 15,248, of 5,660,000 tons, were steamers.

The merchant marine on Jan. 1, 1897, numbered 2,013 sailing vessels, of 290,855 tons, and 756 steamers, of 205,964 tons.

Communications.—The State railroads at the end of 1897 had a total length of 2,282 miles and the lines belonging to companies a length of 4,066 miles.

The post office in 1896 transmitted 56,954,000 internal, 13,312,000 international, and 226,000 transit letters; 6,753,000 internal, 1,031,000 international, and 19,000 transit postal cards; 82,224,000 internal, 6,186,000 international, and 45,000 transit newspapers and circulars; and 3,315,000 internal and 342,000 international money letters and post-office orders of the respective values of 774,111,000 and 61,584,000 francs. The receipts were 13,607,303 francs; expenses, 12,191,481 francs.

The Government telegraph lines had a total length of 5,398 miles, with 15,414 miles of wire; the lines of companies had a length of 2,882 miles, with 10,164 miles of wire. The number of paid internal messages in 1897 was 1,095,091; of international messages, 766,055; forwarded in transit, 285,508; service messages, 123,063. The total receipts were 2,112,810 francs, while the expenses amounted to 1,859,756 francs.

Norway.—The legislative power is vested in the Storting, containing 114 members elected for three years, 38 by the towns and 76 by the rural districts. The Storting elects one fourth of its members to form the Lagthing, which has a veto power over the acts of the Odelsting, composed of the rest of the members. The Council of State in the beginning of 1898 was composed of the following members: Minister of State, Dr. G. F. Hagerup; Minister of Worship and Education, J. L. R. Sverdrup; Minister of the Interior, O. J. Olsen; Minister of Finance and Customs, B. Kildal; Minister of National Defense, Major-Gen. C. W. E. B. Olsson; Minister of Public Works, F. Stang-Lund; Secretary of State, H. Lehmann; Section of the Council of State sitting in Stockholm, G. W. W. Gram, Minister of State, and T. de W. Engelhart, Counselor of State.

Area and Population.—The area of Norway is 124,445 square miles. The population is 1,988,674. The number of marriages in 1896 was 13,952; of births, 63,308; of deaths, 31,574; excess of births, 31,734. The emigration was 6,679 in 1896 and 4,699 in 1897. Christiania, the capital, has 148,213 inhabitants.

Finances.—The revenue for the financial year 1896 was 76,729,900 kroner, including 453,400 kroner of local subscriptions for railroad building, 3,471,200 kroner of loans, and 7,682,800 kroner in the Treasury. The ordinary revenue was 65,122,500 kroner, of which 4,168,000 kroner came from direct taxes, 26,653,400 kroner from customs, 3,638,000 kroner from the spirit duties, 3,490,800 kroner from the malt duty, 888,400 kroner from stamps, 1,023,200 kroner from law courts, 563,100 kroner from succession duties, 1,524,700 kroner from state forests, domains, and mines, 2,090,400 kroner from active capital, 3,904,800 kroner from the post office, 1,521,000 kroner from telegraphs, 9,688,300 kroner from railroads, 1,946,500 kroner from universities, schools, and churches, 340,600 kroner from prisons, 991,500 kroner from hospitals and insane asylums, and 2,689,000 kroner from various sources. The ordinary expenditures were 63,032,600 kroner, and the extraordinary expenditures 13,697,300 kroner; total, 76,729,900 kroner. The ordinary expenditures were 352,700 kroner for the civil list and appanages, 652,600 kroner for the Storting, 1,353,100 kroner for the Council of State, 7,336,500 kroner for public instruction and worship, 6,084,900 kroner for police, justice, and sanitary service, 9,389,500 kroner for the Interior Department, including the postal and telegraph service, forests, fisheries, etc., 12,412,700 kroner for public works, of which 9,081,300 kroner were for operating railroads, 10,789,100 kroner for finance, including 1,642,100 kroner for the custom-house, 1,458,600 for amortization, 5,423,700 kroner for interest of debt, and 538,200 kroner for pensions, 9,508,200 kroner for the army, 4,367,700 kroner for the navy, 624,900 kroner for foreign affairs, and 160,700 kroner for accidental expenses.

The total debt on June 30, 1897, amounted to 181,338,700 kroner. The assets of the Government were valued at 177,230,100 kroner, comprising 41,277,900 kroner of active capital, 25,987,100 kroner of money in the Treasury and arrears to be collected, and 109,965,100 kroner invested in railroads. Most of the debt pays 3½ per cent. interest.

Defense.—Obligatory service was introduced into Norway by the law of 1885, but it is not generally enforced except to train the recruits for forty-eight or fifty days in the infantry and mountain and fortress artillery, and seventy days in the cavalry and field artillery. About 1,700 officers and 18,000 men of the first ban are maintained in active service. The fleet contains 2 new armor clads of 3,500 tons displacement, carrying 20 guns each, 4 monitors, about 30 gunboats, and 20 torpedo craft of various sizes.

Commerce.—The total value of imports in 1897 was 263,718,000 kroner, and exports 167,697,000 kroner. The import of cereals was 38,200,000, of fermented liquors 6,800,000, of colonial produce 26,200,000, of fruits and vegetables 3,900,000, and of animals and animal products 13,500,000 kroner in value, giving a total of 88,600,000 kroner for articles of alimentation, while the exports of this class were valued at 57,200,000 kroner, of which animals and provisions represent 55,500,000 kroner. The imports of coal were 15,700,000, of metals 10,400,000, of hides and leather 8,300,000, of textile materials 6,400,000, of timber 7,000,000, and of minerals 6,600,000 kroner, a total of 54,400,000 kroner for crude articles, against an exportation of 54,700,000 kroner, timber making 42,300,000 and hides and leather 7,300,000 kroner of this total. The imports of metal goods were 19,400,000, of tissues 40,200,000, of paper, 2,900,000, of leather goods 2,400,000, and of wood manufactures 5,500,000 kroner, a total for manufactures of 70,400,000 kroner, against 40,400,000 kroner of exports, the items being 22,400,000 kroner for wood manufactures, 8,000,000 kroner for paper, 6,800,000 kroner for tissues, 3,000,000 for metal goods, and 200,000 kroner for leather goods. The imports of all other articles were valued at 50,800,000 kroner, including 11,900,000 kroner for oils, and the exports were 15,400,000 kroner, including 6,800,000 kroner for oils. The values in kroner of the imports from and exports to the various countries in 1897 are given in the following table:

COUNTRIES.	Imports.	Exports.
Great Britain.....	67,560,000	65,387,000
Germany.....	71,348,000	21,919,000
Sweden.....	42,278,000	25,724,000
Russia and Finland.....	24,079,000	4,461,000
Denmark.....	13,305,000	7,303,000
France.....	4,068,000	7,359,000
Netherlands.....	9,624,000	8,934,000
Belgium.....	11,791,000	6,327,000
Spain.....	1,685,000	9,602,000
Portugal.....	836,000	718,000
Italy.....	2,001,000	2,790,000
United States.....	11,989,000	863,000
Other countries.....	3,964,000	6,220,000
Total.....	263,718,000	167,697,000

Navigation.—The merchant fleet on Jan. 1, 1897, numbered 6,230 sailing vessels, of 1,214,759 tons, and 962 steamers, of 351,799 tons. The number of vessels entered at the ports of Norway in the course of 1897 was 13,201, of 2,908,946 tons, of which 6,842, of 1,937,954 tons, were Norwegian and 6,359, of 970,992, tons were foreign. The total number cleared was 13,152, of 2,941,841 tons, of which 6,815, of 1,975,367 tons, were Norwegian, and 6,337, of 966,474 tons, were foreign. Of the vessels entered 6,583, of 1,891,116 tons, and of those cleared 11,746, of 2,374,395 tons, carried cargoes.

Communications.—The railroads in 1897 had a length of 1,211 miles. The state telegraphs had a length of 5,470 miles, with 14,996 miles of wire; those of railroad companies had a length of 1,170 miles, with 2,160 mile of wire. The number of internal messages in 1897 was 1,293,188; of international messages, 718,906; of messages connected with the service, 22,519. The receipts were 1,705,-

279 kroner; expenses, 1,668,489 kroner. The post office forwarded 30,859,400 internal and 10,636,900 foreign letters and postal cards, 44,326,600 internal and 4,647,200 external pieces of foreign printed matter, and 2,091,300 internal money letters, valued at 824,400,000 kroner, and 101,300 foreign ones, valued at 26,400,000 kroner. The receipts were 4,123,864 and expenses 3,924,118 kroner.

Political Events.—The constitutional conflict between Norway and Sweden entered upon a new and more serious phase in 1898. It has dragged along since Norway was forced into the union by conquest in 1814, and has its grounds in the essentially different social character of the two peoples and their political ideas and institutions. The differences between the old Radical party, led by Sverdrup and the extreme, almost Republican Radicals, inspired by Björnstjerne Björnson, impelled the King to appoint the Conservative Ministry of Stang in 1888, which hung on in defiance of votes of no confidence until the Radicals united again on the consular question and forced Stang to retire in 1895. In 1896 the Storthing voted to adopt a Norwegian national flag without any symbol of union with Sweden. This decision King Oscar refused to sanction. A threatening counter agitation was excited in Sweden by the irreconcilable attitude of the Norwegian Left, so that when the Storthing voted exceptional army credits the Swedes increased the vote for contingent expenses. In the hope of averting a rupture by discovering a *modus vivendi* the Swedish Government proposed a joint commission, which was accordingly constituted of 5 Moderates and 2 Conservatives, appointed on the part of Sweden, and 4 Moderates and 8 Radicals as Norwegian representatives. Concluding its deliberations in January, 1898, the commission presented four different reports; a majority and a minority report for each nation. All the Swedish representatives were in favor of replacing the *Rikssakt* of 1815 with a new act of union, and this the Norwegians unitedly opposed. The Swedish commissioners were willing to give the maximum of liberty to each country consistent with the maintenance of the union, and to concede absolute equality of rights with regard to common institutions, even to the point of having a common Ministry of Foreign Affairs presided over by either a Swede or a Norwegian. They proposed that all questions of foreign policy be referred to the King in the presence of an equal number of ministers of each country, and that these consulting ministers and the common Foreign Minister be responsible to a common Supreme Court. The minority of the Swedish commissioners proposed that the Foreign Minister be responsible to a joint delegation of 30 members of the Swedish Riksdag and 30 members of the Storthing; the majority, that he should appear before the Parliament of each country separately. The Swedish commissioners admitted the justice of a preferential arrangement for Norway in regard to consular fees in recognition of the great preponderance of the Norwegian commercial marine, but would not agree to a separate consular service. They recommended that the King's civil list and the maintenance of the army and navy be made an equal charge on Norway and Sweden in proportion to their population; that for the defense of the two kingdoms a certain minimum force of Swedish and Norwegian regular troops should be created, which, together with the combined navies, would be at the King's disposal at the instant of mobilization. The Norwegian Storthing, overriding the royal veto, has been able to withdraw the forces of Norway from the obligation to serve in the common defense by organizing nearly the whole of them as Landvaernet, or militia, which can not be counted as

troops of the line or used beyond the frontier, as is laid down in a paragraph of the Norwegian Constitution. The majority of the Swedish commissioners therefore demanded a guarantee that the King should be able to command the land forces of Norway in the same way that he can those of Sweden. The Norwegian Radical commissioners took the ground that no change in the act of union is necessary for their purposes, since the Storthing can now enact laws without the royal consent, and therefore erect a separate consular service and even a Norwegian Ministry of Foreign Affairs. They were willing to agree to a common Ministry of Foreign Affairs and a common Supreme Court, but they would require the consultative ministers still to answer to their respective Parliaments. A separate consular service they insisted upon, though they were willing to grant by a convention a certain degree of control over it to a common Ministry of Foreign Affairs, and to continue for fifteen years longer the common consular representation. The Swedish demand that any part of the Norwegian military forces should be held at the disposal of the King for the defense of Sweden against invasion they refused to consider, and in regard to the civil list they wanted the Storthing to retain the right to alter or withhold it without reference to Swedish action. The minority report of the Norwegian commissioners recommended a separate Foreign Minister and diplomatic service as well as separate consular representation for the two countries.

The hopeless divergence between the Swedish and Norwegian commissioners rendered the position of the ministry, which had striven for an agreement, untenable. The session of the Storthing was opened on Feb. 11, and the next morning the ministry resigned. M. Steen, the leader of the Extreme Radicals, was called upon to form a ministry, which was completed on Feb. 17, consisting of the following members: Minister of State, J. W. C. Steen; Minister of Worship and Public Instruction, V. A. Wexelsen; Minister of Justice and Police, O. A. Qvam; Minister of the Interior, P. T. Thilesen; Minister of Public Works, J. G. Lövland; Minister of Finance and Customs, E. Sunde; Minister of National Defense, Col. P. T. Holst; Section sitting in Stockholm, O. A. Blehr, Minister of State, and H. H. T. Nysom and E. Löchen, Councilors of State.

The report of the commission on the act of union was presented to the Riksdag and the Storthing simultaneously on March 7. The Storthing debated, among other measures, a bill for the reorganization of the national school system. When it reassembled in the autumn it passed for the third time, with but one dissenting vote, a bill to introduce a purely Norwegian flag, without the emblem of union with Sweden. Once more the King refused to sanction this measure, though he was obliged to accept and promulgate it as law, having exhausted his power of veto. A loan of 20,000,000 kroner was raised for military purposes.

SWITZERLAND, a federal republic in central Europe. The Federal Assembly is made up of two bodies, a National Council of 147 members, elected by direct universal suffrage for three years, and a States Council of 44 members, elected by the cantons. In joint session the two bodies elect a Federal Council of 7 members, who preside over the executive departments. Any act of legislation can be vetoed or any amendment to the Constitution can be enacted by a referendum decided by popular vote whenever it is demanded by 30,000 citizens or by 8 cantons. The Federal Council in 1898 was composed of the following members: President and Chief of the Department of Foreign Affairs, Dr. A. Deucher, of Thurgun; Vice-President and Chief of

the Department of the Interior, Eugène Ruffy, of Vaud; Military Affairs, E. Müller, of Bern; Justice and Police, Dr. E. Brenner, of Basel; Commerce, Industry, and Agriculture, A. Lachenal, of Geneva; Finance and Tolls, W. Hauser, of Zurich; Posts and Railroads, Dr. J. Zemp, of Luzern. The Federal Assembly, on Dec. 15, 1898, elected M. Müller President of the Confederation for the ensuing year, and M. Hauser Vice-President.

Area and Population.—Switzerland has an area of 15,976 square miles, and a population of 2,917,754. The number of marriages in 1897 was 25,297; of births, 95,540; of deaths, 60,116; excess of births, 33,424. The population of the town of Zurich in 1898 was 146,517; of Basel, 98,117; of Geneva, 82,120; of Bern, 54,577.

Finances.—The revenue of the Federal Government in 1897 was 91,556,543 francs, of which 580,649 francs were derived from real property, 2,144,615 francs from invested capital, 66,570 francs from the general administration, 31,075 francs from the Department of Foreign Affairs, 384,683 francs from Justice and Police, 2,663,103 francs from the Military Department, 48,105,863 francs from Finance and Customs, 224,481 francs from Industries and Agriculture, 29,117,203 francs from the post office, 7,887,189 francs from telegraphs and telephones, 368,146 francs from railroads, and 32,966 francs from various sources. The total expenditures were 87,317,364 francs, of which 4,649,782 francs were for interest and amortization, 1,169,786 francs for general administration, 611,694 francs for the Political Department, 12,688,675 francs for the Interior, 385,350 francs for Justice and Police, 24,433,748 francs for the Military Department, 4,286,194 francs for Finance and Customs, 3,356,987 francs for Industry and Agriculture, 27,464,177 francs for the postal service, 7,887,189 francs for telegraphs and telephones, 304,993 francs for railroads, and 78,789 francs for unforeseen expenses. The indebtedness of the Confederation amounted on Jan. 1, 1898, to 83,891,688 francs, the assets to 188,063,126 francs.

Commerce.—The total value of the imports in 1897 was 1,114,442,000 francs, and of the exports 747,436,000 francs. These figures include 83,223,000 francs of coin and bullion imported and 54,263,000 francs exported. The special imports of grain and flour were 124,500,000 francs; raw silk, 116,400,000 francs; animals, 52,100,000 francs; woollens, 44,500,000 francs; coal, 43,800,000 francs; wine, 37,700,000 francs; iron, 35,900,000 francs; cotton goods, 33,300,000 francs; chemicals, 33,200,000 francs; machinery, 27,700,000 francs; raw cotton, 26,700,000 francs; timber, 24,400,000 francs; iron manufactures, 23,600,000 francs; sugar, 19,700,000 francs; leather, 16,500,000 francs; coffee, 16,100,000 francs; barley, malt, and hops, 15,600,000 francs; silks, 13,600,000 francs; wool, 12,500,000 francs; structural materials, 11,800,000 francs; books, 11,700,000 francs; tobacco, 10,700,000 francs; linens, 9,700,000 francs; eggs, 9,300,000 francs. The exports of silks were 135,200,000 francs; cotton goods, 108,700,000 francs; watches, 103,800,000 francs; cheese, 38,400,000 francs; raw silk, 36,700,000 francs; silk thread, 34,700,000 francs; machinery, 34,000,000 francs; chemicals, 25,800,000 francs; milk, 20,100,000 francs; cotton thread, 16,600,000 francs;

animals, 15,800,000 francs; straw goods, 11,600,000 francs; hides and skins, 9,200,000 francs; woollen yarn, 8,900,000 francs; woollens, 8,000,000 francs.

The special commerce was distributed among foreign countries according to the following table, giving values of imports and exports for 1897 in francs:

COUNTRIES.	Imports.	Exports.
Germany.....	306,371,000	175,567,000
France.....	192,416,000	83,648,000
Italy.....	149,841,000	88,973,000
Austria-Hungary.....	66,848,000	41,274,000
Great Britain.....	54,044,000	146,071,000
Netherlands.....	3,123,000	4,876,000
Belgium.....	24,561,000	13,048,000
Spain.....	16,304,000	11,582,000
Russia.....	66,915,000	24,451,000
Rest of Europe.....	17,396,000	21,067,000
United States.....	51,688,000	70,988,000
Rest of America.....	25,313,000	19,412,000
Asia.....	38,480,000	22,916,000
Africa.....	12,895,000	6,021,000
Australasia.....	5,024,000	2,981,000
Other countries.....		3,246,000
Total.....	1,081,219,000	693,173,000

Communications.—The railroads in 1897 had a total length of 2,351 miles. Their cost up to the end of 1895 was 1,134,493,000 francs. The receipts for 1895 were 111,544,765 francs; expenses, 66,193,333 francs. In 1896 the receipts from 43,015,131 passengers and 11,896,393 tons of freight were 106,298,896 francs.

The length of the state telegraphs in 1897 was 4,435 miles, with 12,608 miles of wire. The number of messages sent in 1897 was 3,882,837, of which 1,665,333 were internal, 1,487,793 international, 576,068 in transit, and 153,143 service dispatches. The post office carried 88,929,000 domestic and 39,608,000 foreign letters, 18,595,000 domestic and 15,975,000 foreign postal cards, 31,075,000 domestic and 22,181,000 foreign newspapers and circulars, 4,748,000 domestic postal remittances amounting to 521,948,000 francs, and 1,015,000 foreign ones for 44,868,000 francs.

Legislation.—The Federal Assembly voted on June 30, 1898, for a revision of the Constitution in the direction of co-ordinating the civil and penal law, and this decision was ratified by a popular vote taken in November. The Assembly agreed to guarantee the bonds of the company and to pay a subsidy for the Simplon tunnel, which was authorized to be begun in August. The Government proposed to open a short route from Thun to Brieg and the Simplon by piercing the Lötschenberg. This tunnel, which is to be completed by the beginning of 1904, will be 2,312 feet above the sea level, or only three fifths of the altitude of the St. Gothard, and with easy approaches on the Swiss side it will afford the most direct route from Bern, Lausanne, and Geneva to Milan and the north of Italy. The tunnel will be 12½ miles long, and the cost is estimated at 70,000,000 francs.

Following the example of the German Government, the Federal Council issued a decree in July prohibiting the importation of American fruits, with the object of preserving Swiss orchards from infection by the San José scale insect.

T

TELEGRAPHY, WIRELESS. The transmission of electric telegraphic signals through space without the use of any wires that run directly from the transmitting to the receiving instrument; also

called more properly "space telegraphy," as one system at least makes extensive use of wires. The name is not applied to any of the optical or other non-electric signaling systems.

Telegraphy by Earth or Water Conduction.—The earliest experimenters on telegraphy without connecting wires endeavored to utilize the conductivity of water or earth. As early as 1842 experiments along this line, due to S. F. B. Morse, were carried out by Gale on the Susquehanna river.

In 1854 James Bowman Lindsay, a teacher of Dundee, Scotland, patented a device for establishing electrical communication through water without connecting wires (see Fig. 1), and in the same

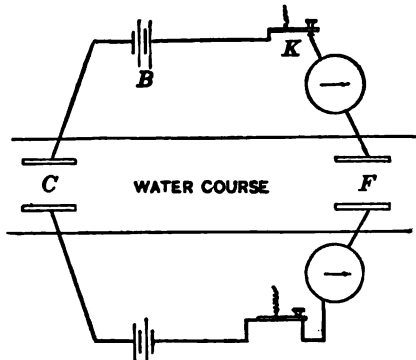


FIG. 1.

year he thus telegraphed across a body of water 500 yards wide, at Portsmouth, England. In 1859 he telegraphed across the Tay at Glencarse, where it is half a mile wide. Since Lindsay's time similar results have been obtained elsewhere, and numerous patents have been taken out in various countries. In England the Solent was traversed by messages in 1882, and in 1896 the English postal telegraph communicated with Fastnet light by a conduction method due to Willoughby Smith. In India practical communication has been kept up across rivers by a system devised by Melhuish. In France some experiments by Abbé Michel have successfully utilized the conductivity of moist earth, using telephones as receivers and transmitters. These methods, however, do not promise success at considerable distances, and are much interfered with in cities by leakage currents, and by short circuiting due to pipes and rails. An application of this method to signaling between ships seems to offer a chance of success. In the patent granted in Germany to Somzee in 1888, "each ship carries a pair of plates submerged in the water, one at the bow, the other at the stern, the plates being connected by wires which include a signal-receiving instrument, such as a telephone or a galvanometer. Shoals may be indicated by suitable stationary plates, the current from which is diverted into the receiving circuit on the ship whenever the vessel approaches shallow water." Similar methods have been patented in Great Britain by Stevenson in 1892, and in the United States by Blake in 1894. In a report to the General Electric Society, Rathenau ("Elektrotechnische Zeitschrift," Nov 8, 1894) suggested that a telephone receiver be used to receive the signals. "The metallic diaphragm of the telephone would be replaced by a light tongue, which should be tuned to respond to the predetermined rate of vibration of the transmitting circuit. This rate would be imposed upon the circuit by a suitable tuning fork operating a circuit breaker." The investigator stated that communication had been effected over a distance of 3 miles. (See also "Uses and Limitations," at the end of this article.) That wireless telegraphy by conduction through earth may have possibilities before it is shown by an accident that occurred in the Ferranti electric-light-

ing station at Deptford, London, about 1888. One of the dynamos became connected to earth at night, with the result that every telegraph in South London became unworkable, and the effect on electrical apparatus was detected in the central counties of England, and even as far away as Paris. Prof. Thompson, discussing this accident, concludes that "it is obvious that by proper forethought and due expenditure of money on the requisite machinery a telegraph without wires might be established between London and Paris, or for that matter between any two places. It is believed by Nikola Tesla that by properly disturbing the earth's electric charge, signals can be transmitted to any point on the earth's surface, and he claims to have obtained experimental evidence of this; but other electricians believe this result to be beyond the power of any apparatus yet invented, and explain his experiments differently."

The same electrician has patented a method of transmitting electric energy by conduction through the upper air, which becomes a conductor when sufficiently rarified, and for oscillatory currents of very high frequency. He believes that great quantities of energy can thus be transmitted, and proposes to operate automobile torpedoes without connecting wires; but it does not appear that his inventions have reached the practical stage. The experiments of Prof. John Trowbridge, of Harvard, support his theory of the conductivity of the upper air; but Prof. Trowbridge believes that it would be impossible to avoid vertical leakage to the earth.

But the greatest success in long-distance electric telegraphy without direct wires has been obtained not by conduction but by induction. The earliest form of wireless induction telegraphy was probably that employed in signaling to a moving train. The first patent to describe such a method was issued to Smith (No. 247,127, Sept. 13, 1881), and numerous others followed, including one to Edison (486,634, Nov. 22, 1892). In Smith's method (see an article by William Bissing, "Electrical World," Jan. 21, 1899) "the metallic roof of the car, which should be insulated, is connected to a wire which leads to one terminal of a telephone receiver, the other terminal of the receiver being grounded through the wheels and rails. A telegraph line is strung along the track in closer proximity to the car than is customary for Morse signaling. On telephoning over the line from a station on the road the car roof is affected inductively, and a current is produced in the receiver on the car, the line and the roof forming the two plates of a condenser. An advantage of this method of transmitting signals is that the line wire along the track may be used for telegraphing according to the ordinary Morse system, without disturbing the telephonic signals. The current induced in the car circuit in this patent is probably due to both electro-magnetic and electrostatic induction."

Successive improvements have been made in these methods, which are mentioned here only on account of their historical interest in connection with wireless telegraphy. Of experiments in space telegraphy proper, the earliest methods have used dynamic and the latest static electricity.

Telegraphy by Dynamic Induction.—The fact that an electric current passing through a wire creates a magnetic field around it has been known since the time of Ampère, and the fact that an electric current is set up in a second neighboring wire by any variation in the field, due to motion of either wire or to variation of the current, has been known since Faraday's researches in 1831. It was scarcely realized to what a distance such a magnetic field might extend until the invention of the telephone gave a means of detecting very slight varia-

tions in it. It was then found that induction was a very serious source of annoyance. In one early case in England it was found, for instance, that telephone wires were disturbed on the top of houses 80 feet high by telegraph wires running parallel to them under ground. In 1885-'87 experiments near Newcastle-on-Tyne, England, under the direction of W. H. Preece, the head of the British Postal Telegraph, showed that one wire was affected by disturbances in a parallel wire a quarter of a mile distant. At Swarland Park in August, 1886, speech was carried on by telephone between two parallel horizontal squares of insulated wire a quarter of a mile apart, the side of each square being also a quarter of a mile. At Broomhill colliery, shortly afterward, similar communication was held between a triangle of insulated wire with side of three quarters of a mile, laid out in the underground galleries of the colliery, and a similar triangle 360 feet above on the surface of the ground, showing that rock was not opaque to the inductive effect. In Bristol Chunnel Mr. Preece sent messages from Penarth to Flat Holm, a distance of three miles, and he obtained evidences of sound as far as Steep Holm, over five miles. His system is now in regular practical operation, being used by the British War Department between Lavernock Fort and the neighboring fort on the island of Flat Holm.

In 1894 Charles A. Stevenson communicated to the Edinburgh Royal Society the results of experiments in signaling from Burra-fjord lighthouse, Scotland, to North Unst lighthouse on the island of Muckle Hagga, a distance of three miles; but of this only half a mile of sea channel was worked by induction, the remainder being covered by ordinary conducting line wire. On each side of the half-mile break was a coil of nine turns of wire, inclosing a circle 200 yards in diameter. Mr. Stevenson did not use alternating currents as Mr. Preece did, but listened for the make-and-break ticks caused by a battery and key. Mr. Stevenson states that he could read by induction messages passing between Edinburgh and Glasgow; but this is doubted by Dr. Oliver Lodge.

Simple induction telegraphy is illustrated by the accompanying diagram of Preece's method (Fig. 2), in which A is a source of electricity, B a Morse key, C a "buzzer" of the kind used in field telegraphy, D and E rolls of insulated wire about 150 yards long, and F a telephone trumpet. In practice, of course, the coils are strung out, and instead of being close together are half a mile or so apart.

Messrs. Evershed and Cox have devised a receiver consisting of a vibrating loop of wire tuned to the sending circuit, and suspended in a powerful magnetic field. This is said to be very sensitive. With this they have made important experiments in sending signals to lightships off the coast.

Dr. Oliver Lodge, who has made a close study of the whole subject, has developed a system of magnetic-induction telegraphy in which he uses at both the sending and the receiving station a large horizontal coil of wire, including a condenser of considerable capacity. These circuits are syntonized or "tuned" so that each has the same natural electric vibration frequency, and hence a disturbance in one acts by the principle of resonance to cause a much more intense disturbance in the other than would be caused by simple induction. The frequency is lowered to that of sound, so that a telephone can be used at the receiver to detect the

disturbance. Some alternating or intermitting machine of considerable power is used as the sending appliance; and its fluctuating current is broken into long and short "spells," so that the Morse alphabet can be used for signaling. Dr. Lodge has also sometimes dispensed with the condensers, and used the coils alone; but the results were not so satisfactory. Dr. Lodge believes that he has shown mathematically that "no unaided simple induction process can work satisfactorily over really big distances, unless an altogether prohibitive amount of wire or an extravagant amount of power is used." The hearing distance with simple induction is as the two-thirds power of the diameter of one of the coils; so that both coils must be nearly doubled if the distance is to be doubled.

There are, as has been seen, two practicable ways of building the inductive circuits in this variety of space telegraphy; in that devised by Preece they are in vertical planes, and consist half of line-wire and half of the return-earth circuit. In Lodge's method they are horizontal. In horizontal circuits there is a loss of one half the mutual induction, which, however, can be compensated for by increasing the area, and more wire is necessary. On the other hand, horizontal circuits, especially in the form of coils, possess manifest advantages. "In every instance in which communication has been carried on by magnetic induction, or by earth leakage, the ordinary Bell telephone has been used as a 'sounder.' It is well adapted for the purpose, as it enables exceedingly minute currents to be detected. This sensitiveness does not arise so much from the efficiency of the telephone as a current detector as from the marvelous delicacy of the human ear, which is able to distinguish sound waves produced by motions so exceedingly small as to be absolutely invisible even when magnified many times." (S. Evershed, *Inst. Elec. Engineers*, Dec. 22.) Mr. S. Evershed has made careful measurements of the magnetic and electrical quantities involved in the telephone, but up to the present he reports that he has been unable to devise adequate means for measuring what fraction of the electrical power supplied is converted into mechanical power. This conversion can be estimated for any given amplitude of the diaphragm from a knowledge of the change in induction threading the coils for different displacements of the diaphragm; but the difficulty

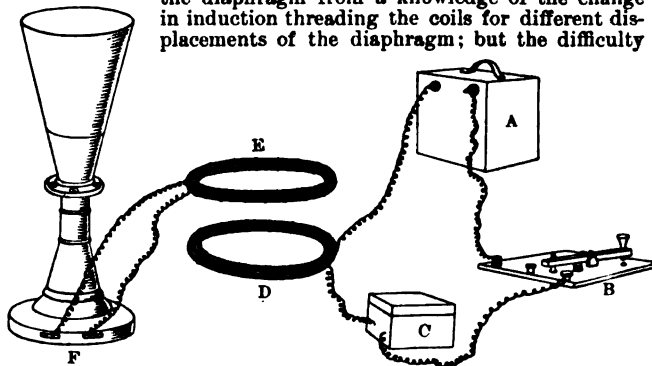


FIG. 2.—MR. PREECE'S INDUCTION METHOD.

remains of determining the amplitude when an alternate current is flowing in the coils.

In all the induction experiments that have been described, the message was carried through space from transmitter to receiver by low-frequency electric waves. In the method now to be described high-frequency Hertzian waves are employed.

Telegraphy by Hertzian Waves.—The discovery of electric waves by Heinrich Hertz (see yearly articles on *PHYSICS* in "Annual Cyclopædia") gave a great impulse to wireless telegraphy. Every

experiment on these waves was practically a demonstration that they could be used for the transmission of signals; for in every such experiment a device was used for generating the waves and another for detecting them at a distance, often with solid objects intervening. The development of a practical method, however, has depended largely on the use of the "coherer" as a receiver. This device, as developed by Branly in France (1890), Lodge in England, and Onesti and Righi in Italy, depends on the principle that a loose aggregation of metal particles becomes a conductor under the influence of an electric wave, because, or at any rate as if, the electric influence causes the particles to cohere continuously. Mechanical disturbance causes them to "decohere" and become again non-conducting. At Oxford, in 1894, Dr. Lodge showed how coherers could be used, and proposed to apply a mechanical tapper or an electric trembler to effect decoherence.

The perfection of this device and of other devices used in this kind of space telegraphy is due largely to Marconi, an Italian, who was "the first to con-

ringing the bell or actuating the Morse inker. At the same time the electro-magnetic device E operates the tapper N, which strikes the glass tube, causing the filings to decohere, and thus preparing the coherer for a second signal. The sensitive relay H is used to throw into circuit the current from a battery strong enough to operate the decoherer and the bell or inker; since the current that passes through the coherer is usually not of sufficient strength to do this work. The wave, then, affects the coherer, which starts the relay, which in turn does the signaling. The "wings" C and D are strips of copper or brass about 1 by 12 inches, whose duty is to assist in intercepting the electric wave and conducting it to the filings in the coherer. The wave sets up electric oscillations in these wings, which must accordingly be so adjusted in length as to respond most effectively to the transmitter. The filings in the coherer used in this case are 96 per cent. hard nickel and 4 per cent. silver, with a trace of mercury. The sensitiveness is increased by increasing the proportion of silver. The filings are rather

coarse and must be of uniform size. They are contained in a glass tube 2 inches long, into the ends of which enter wires so connected that if they were in electrical contact the circuit containing battery, relay, and bell would be completed. The ends terminate in silver blocks $\frac{1}{8}$ of an inch apart, which fit closely in the tube; and the circuit is therefore complete only when the filings in the gap are in a condition to allow the current to pass. The gap is not packed with filings, but filled loosely, so that the tapper N readily knocks them apart.

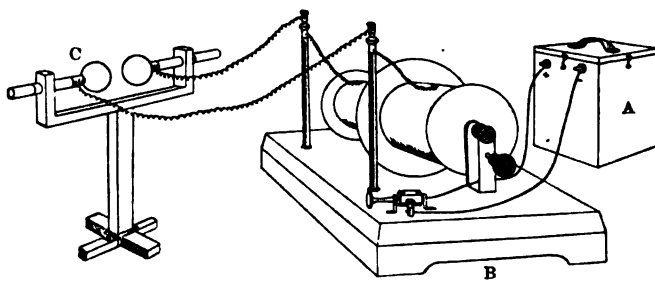


FIG. 3.—THE TRANSMITTER.

ceive and to patent the application of Hertzian waves to telegraphy, apart from mere signaling," and whose name is perhaps the most familiar one before the public in connection with the whole subject. The transmitting apparatus now used by Marconi is simply a device for generating Hertz waves, consisting of a battery, A (Fig. 3), an intensity coil, B, giving a 6-inch spark in air, and a pair of brass knobs, C. When the current is made, sparks pass between these knobs and give rise to the desired electric wave disturbance, which travels outward in all directions with the velocity of light. For long-distance work four knobs are used, of which the two inner are half immersed in vaseline oil, giving greater energy to the spark and to the

To prevent the high-frequency oscillations set up in the receiver by the electric waves from running around the local battery wires, thereby interfering with the working of the instrument, Marconi uses "choking coils" (T T), which are small coils having great self-induction, formed by winding about a yard of thin, well-insulated wire around a core 2 or 3 inches long.

In another form of receiver, devised by Dr. Oliver Lodge, and now made in essentially the same form under the name of "Miller and Woods's receiver," the coherer is a small ebonite cup containing nickel filings into which two supporting wires pass. The decohering apparatus consists of two small rods with a screw thread on them which, when actuated by the signal bell, rub across the wires of the coherer.

The apparatus is very compact, occupying less than one cubic foot.

The Marconi apparatus has undergone some important modifications at the hands of an American engineer, W. J. Clark. Mr. Clark employs for emitting and absorbing the electric waves metal plates, which must be of proper size and perfectly parallel in order to get the best results.

Wehnelt has recently devised a new form of contact-breaker that enables oscillations to be obtained at the rate of over 1,000 a second, and sends out trains of waves that follow each other with practically no interval. It is electrolytic in principle, and consists of a glass vessel partly filled with dilute sulphuric acid and having a negative electrode of lead and a positive of platinum wire projecting from an insulating glass tube. When put in a circuit at a pressure of 100 volts, together with an induction coil, there is formed in the liquid between the two electrodes a voltaic arc which is very

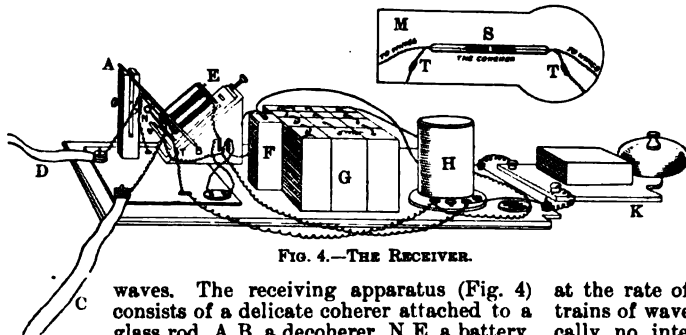


FIG. 4.—THE RECEIVER.

waves. The receiving apparatus (Fig. 4) consists of a delicate coherer attached to a glass rod, A B, a decoherer, N E, a battery, G, a separate cell, F, wings, C and D, and a relay, H, to which may be attached a bell, K, or a Morse inker. Whenever the current is switched on at the transmitting station, which may be miles away, the electric wave that results strikes almost instantly against the coherer in the receiving apparatus, causing it to conduct and thus closing the circuit and

rapidly broken and reformed, with a shrieking noise. This device will work only on an inductive circuit, and its action has not yet been fully explained. Its value for wireless telegraphy and for skiagraphy lies in the facts that it can be used with the ordinary street main, and that it gives out absolutely continuous trains of waves. It is likely to play an important part in the development of space signaling. (See "Engineering," London, March 17, 1899.)

Among Signor Marconi's first achievements with his apparatus was the sending of messages across Bristol Channel, more than 9 miles. Later, in Italy, he telegraphed from the fortress of San Bartolomeo to the warship "San Martino," 12 miles out at sea. In this case, although the receiver was in the engine room, surrounded by tons of steel, messages were recorded accurately. Afterward Marconi signaled from Needles Hotel, Alum Bay, Isle of Wight, to Swanage on the mainland, 17½ miles distant, the receiver being on board a moving steamer, and the weather being stormy. After this feat regular communication was kept up between Alum Bay and Bournemouth, 14½ miles, and the second station was removed in September, 1898, to Poole, 18 miles away. An average of 1,000 words daily have been transmitted between these points. Stations intended for permanent service have been established also at Durlston Castle and elsewhere.

In May, 1898, signals were sent between Ballycastle and Rathlin island, in the north of Ireland, 7½ miles, and in July the progress of a yacht race (the Kingstown regatta) was reported for the "Dublin Express" from a steamer that followed the yachts, whose distance from the receiving station on land at Kingstown was sometimes as great as 10 miles. The vertical wire on the steamer was 75 feet high, and was attached to the mast. Later, in August, messages were sent from the Prince of Wales's yacht "Osborne" in Cowes Bay to the Queen at Osborne House. In one case communication was kept up until the yacht was 7 miles away. During the winter of 1898 messages were sent regularly between South Foreland lighthouse and the lightship "East Goodwin," 12 miles distant. The system worked admirably, as reported by Signor Marconi, through the severest winter storms. On March 27, 1899, messages were sent across the English Channel from the vicinity of Boulogne, France, to the South Foreland, England, a distance of 32 miles. The Morse code was used, and the results are said to have been satisfactory.

Dr. Slaby, of Charlottenburg, Germany (see "Century Magazine," April), has sent signals by space telegraphy on the Marconi system between Schöneberg, near Berlin, and Rangsdorf, a distance of 21 kilometres (13 miles), assisted by the German army balloon corps. Balloons anchored at the two stations held lengths of copper wire 250 metres long, which hung to the ground. Balloons or kites can thus be used in space telegraphy either by land or by sea.

Dr. Strecker, in a paper before the Berlin Elektrotechnischer Verein, describes experiments on the use of long horizontal wires in place of vertical ones. Dr. Slaby, by using wires 100 metres long, 2 metres above the surface of the ground, had transmitted signals 8 kilometres. In Strecker's experiments, the wires connected to the transmitting and receiving apparatus were also 100 metres long and parallel to one another, but the distance between them was 5.7 kilometres. Bronze wire, supported on ordinary telegraph poles and insulators, was employed. In spite of wet weather the experiments, which were continued for some weeks, were on the whole successful, distinct signals being received; but the Morse signals were long, and the

transmission was therefore very slow. Modifications made by putting the coherer in the middle instead of at the end of the line, and increasing the length of the receiving line to 300 metres, did not cause marked improvement. Strecker concludes that employing ordinary telegraph stores, and horizontal in place of vertical wires, signals can be transmitted through a distance over 50 times the length of the wires.

Uses and Limitations.—The limitations of space telegraphy are thus stated by Rollo Appleyard in "Nature," Jan. 12, 1899:

"It is very generally admitted that space telegraphy will replace metallic-circuit systems only under conditions where metallic circuits are impracticable. The fact that metallic circuits have been laid over the Andes may be taken as proof that there are remarkably few land areas that can not be spanned by wires. For communication between fixed points on rough coasts a wire suitably protected is still the right and the best thing. . . . The great advantage of a metallic-circuit system is the consequent privacy of the messages, the simplicity of the apparatus, the speed of transmission, and the possibility the system offers for working by telephone, and in other ways avoiding the expense of skilled operators. Space telegraphy is at present limited to comparatively short distances, and its usefulness is confined to spanning estuaries, skirting seaboard, and for such purposes as that to which it was applied by Mr. Preece between Oban and Mull in 1896. But, except in rare instances, it is only likely to replace submarine cables between moored vessels and the shore, e. g. between lightships and the coastguard stations. The point of failure in submarine-cable communication thus happens to coincide with the point of favor of space telegraphy. The present object of those working at space telegraphy should therefore be to supplement the cable system of coast telegraphs, so that all the light vessels and lighthouses of our coasts may be brought into communication with one another and with the lifeboat stations."

One of the weak points of space telegraphy, as pointed out by A. V. Abbott in a recent lecture ("Western Electrician," Chicago, December) is that there is necessarily a waste of energy, the sending of a message to a distance of one mile involving the filling with electric waves of a sphere two miles in diameter, of which the transmitting instrument is the center and the receiver but a point on the surface. "Applied to transmission over long distances, such an expenditure of energy becomes commercially appalling." In ordinary telegraphy, although the actual energy is now believed to travel through space, it is directed by the wire. For this reason the use of the new method must probably remain restricted to cases where direct wire connection is impossible or impracticable. In an effort to overcome this objection, Prof. Zickler, of Brunn, Germany ("Elektrotechnische Rundschau," Nov. 21, 1898) has devised a method of using a beam of ultraviolet light to actuate his receiving instrument. He employs a powerful arc lamp as his transmitter, using a screen of glass to produce intermittent flashes of the ultraviolet beam, which embody themselves as dot and dash signals on his receiver. The receiver is an air gap in a circuit containing an induction coil regulated to an electromotive force just below the sparking point at the air gap. As Hertz showed, a beam of ultraviolet light falling on the cathode of a strained air gap, near its breaking-down point, provokes a discharge. Zickler started by producing this effect over a distance of two metres. Then, by improving the shape and material of his electrodes, and inclosing them in a chamber of compressed air, he was able

to increase this distance to 200 metres. This is a remarkable result, and extremely interesting to physicists, but of course its limitation to such small distances precludes its practical use in space telegraphy. Efforts to concentrate and direct the electric radiation by reflectors have also been made by Marconi and others; and Marconi states that he has signaled two miles with reflectors. Of course, the long vertical wire can not be used in this case. The necessity of "tuning," or mutually adjusting transmitter and receiver has also been considered by some as a disadvantage of space telegraphy, but so long as no means of directing the waves to a specific point have been discovered, it is rather an advantage, since it guarantees a certain amount of secrecy. A message will now reach all receivers within a sphere of a certain radius from the transmitter, but they will respond to it only in case they have been accurately tuned with the latter.

Regarding the relative merits of the two chief methods of space telegraphy detailed in this article—which may be called the low-frequency and high-frequency systems, or the dynamic and static systems, or the induction and Hertzian-wave systems, or perhaps the Preece and Marconi systems—Dr. Lodge has been quoted above in an adverse opinion on the former method; but Appleyard, in the review of the subject already noticed, believes that is the most likely to survive in practical use. He says: "Whether the later more elaborate methods of syn-tony for 'coherer' systems, proposed by Dr. Lodge, have justified themselves in practice is not yet known, but it is a significant fact that Dr. Lodge's most recent paper on the subject of space telegraphy makes a distinct departure from the 'coherer' system, and contains no account of experiments in the direction of syntonized receivers used in this particular way."

Mr. Preece reports that the Marconi system is able to traverse a distance of twenty-five miles, but he also says that there would be no difficulty in communicating by the alternate-current inductor system over a similar distance. The speed of signaling by the Marconi system is said by Appleyard to be limited to about twelve words a minute, and he concludes that this handicaps the method. In the Channel tests fifteen words a minute are reported to have been sent. Appleyard believes also that "coherer" systems "are at present too susceptible to mechanical and fortuitous electrical tremors for the ordeal of a telegraph office. Keeping in mind," he says, finally, "that we are here concerned with a practical question for engineers, rather than with the scientific aspect of space telegraphy, it would seem that the 'coherer' systems as a whole are about to be cast aside, and that preference is to be given to alternate-current inductor systems for coast telegraphs. If this is indeed to be the case, the problem is greatly simplified, and experiment resolves itself into the single task of finding the best design of apparatus for communicating between a moored lightship and the shore by means of inductor coils." See, besides the various papers quoted, a review of the literature of the subject by Prof. S. P. Thompson in the "Journal of the Society of Arts," London, April 1, 1898; "Telegraphing without Line Wires," by William Bissing in "The Electrical World," Jan. 14, 1899, *et seq.*; "Wireless Telegraphy," a paper read by G. Marconi before the Institution of Electrical Engineers, March 2, 1899; and "Wireless Telegraphy popularly Explained," by Richard Kerr (New York, 1898).

TENNESSEE, a Southern State, admitted to the Union June 1, 1796; area, 42,050 square miles. The population, according to each decennial census since admission, was 105,602 in 1800; 261,727 in 1810; 422,771 in 1820; 681,904 in 1830; 829,210 in 1840;

1,002,717 in 1850; 1,109,801 in 1860; 1,258,520 in 1870; 1,542,369 in 1880; and 1,767,518 in 1890. Capital, Nashville.

Government.—The following were the State officers during the year: Governor, Robert L. Taylor; Secretary of State, William S. Morgan; Treasurer, Edward B. Craig; Comptroller, James A. Harris; Attorney-General, G. W. Pickle; Superintendent of Instruction, Price Thomas; Adjutant General, Charles Sykes; Commissioner of Agriculture, John T. Essary; Railroad Commissioners, E. L. Bullock, F. M. Thompson, and N. H. White; Labor Commissioner, A. H. Wood; Geologist, J. M. Safford; Chief Justice of the Supreme Court, David L. Snodgrass; Associate Justices, W. C. Caldwell, John S. Wilkes, W. K. McAllister, and W. D. Beard; Justices of the Court of Chancery Appeals, M. M. Neil, S. F. Wilson, and R. M. Barton; Clerk, A. W. McMillan. All the above are Democrats.

Finances.—The biennial report of the Treasurer gives the following statement: "Balance in treasury Dec. 20, 1896, \$271,251.54; received from Dec. 20, 1896, to close of business Dec. 19, 1898 (both inclusive), \$4,416,802.49; total, \$4,688,054.03; paid out on Comptroller's warrants from Dec. 19, 1896, to Dec. 20, 1898, \$4,602,982.62; balance at close of business Dec. 19, 1898, \$85,071.41.

"Included in the totals of receipts and disbursements shown above are amounts credited and charged to loan account. These amounts are neither a part of the State's revenue from usual sources, nor of its disbursements for current expenses, as they consist alone of money borrowed on notes of the Funding Board and the payment of same. We have received from this source \$1,250,000 and have paid out \$625,000, leaving a balance of \$625,000.

"This balance of \$625,000 represents the amount of the notes of the Funding Board outstanding at this date. During the year 1897 we were still working under the revenue law of 1895, with a two-mill rate; besides this a large amount of anticipated collections went into the treasury during December, 1896, which would ordinarily not have been received until January, 1897.

"During 1898 we have been under the restored tax rate. Receipts for the year 1898, less borrowed money, \$1,918,053.79; disbursements for same period, less borrowed money and the amount paid out on new Penitentiary, \$1,910,660.99. A three-mill rate barely paid the expenses of the State in a year when there was no regular session of the Legislature. By the Jarvis law (affecting the cost of criminal trials) we shall save not less than \$50,000 a year. The greater saving under this law is to the counties.

"Tennessee owes a bonded debt of \$16,455,200, upon which we pay annually \$542,426 of interest. The greater part of this debt consists of the 3-per-cent. settlement bonds of 1883, due in 1913, but now subject to call.

"On Jan. 1, 1899, we shall owe a floating debt of \$850,000."

Education.—In 1896 the State had 7,882 schools and 9,135 teachers. The school fund, on which 6 per cent. interest is paid, is \$2,512,000. In addition a tax is levied of 15 cents on the \$100 worth of property, and counties and cities are empowered to impose a similar school tax. The poll taxes also are turned into the school fund. The expenditure for schools is about \$2,000,000 a year.

Crime and Convicts.—The receipts from the Penitentiary and the disbursements to it for the past biennial term were: Receipts in 1897, \$180,097.92; disbursements in 1897, \$173,824.63; loss in 1897, \$43,726.71; receipts in 1898, \$229,517.42; disbursements in 1898, \$219,073.90; profit in 1898, \$10,444.52.

To this profit for 1898 should be added \$25,000. The extra session of 1898 appropriated this sum for the erection of the workshops, etc., but decided that it should be paid out of the receipts from the labor of the convicts, which has been done.

The Governor says: "I congratulate the people of Tennessee that the penitentiary system, so long a source of perplexity and expense, is at last a self-supporting and profit-paying institution; and that by the employment of the convicts within the walls and within the mines, they have been removed as nearly as is possible from competition with free labor. I beg to call your attention also to the fact that our courts are constantly sending children of tender age as convicts to the Penitentiary. I do not believe that such a system is in keeping with civilization, and therefore in the name of our common humanity I urge the inauguration of a reformatory school for criminal children."

The new prison is now the main one and had in February about 600 inmates, while the old building, now the branch prison, had about 200.

In regard to criminal costs the Comptroller says that before the enactment of remedial measures by the last Legislature criminal costs averaged \$227,000 annually. Since their enactment the average has been, not including Attorneys-General salaries, \$156,000 annually. For the two years the entire amount paid out was \$392,000, but \$80,000 of this had accrued under the old law and was actually paid before the criminal cost legislation of the last session was enacted. Gov. Taylor granted 693 pardons, commutations, and respites during his two years in office.

Tennessee is charged with six lynchings this year. In May a negro brakeman accused of pushing a white boy from a moving train, causing his death, was lynched by a mob at Rives. The lynching of a colored man at Mine Lick, in June, for assault on a woman, was witnessed, according to a dispatch, by 3,000 persons. A man who murdered his wife in a quarrel was lynched by a mob near Old Town in July. A negro who confessed having entered a house and attempted an assault on a young girl was hanged at Ripley, Aug. 6. At Mountain City, Sept. 26, a negro was taken from the county jail by a mob of 100 men and hanged for assault on a woman and seriously wounding a citizen.

Military.—Under the first call for troops for the Spanish war the quota of the State was three regiments, which the Government wished to have furnished from the militia, and most of the men in that service volunteered, making about 3,800. Of these, 600 were rejected by the surgeons before they left the first camps at three points in the State, and about 1,200 more by Government surgeons after all who were at first accepted had been concentrated at Nashville. On the second call a fourth regiment was recruited for the service. The State has paid out on account of the troops \$9,839.68, and the amount contracted and still unpaid is \$27,578.39.

In a case appealed to the Supreme Court, decision was given that members of the National Guard are exempt from road and jury duty.

Industries and Products.—The cotton crop for the year amounted to 268,635 commercial bales. In 1896 there were 26 mills in the State, with 95,836 spindles, and using 29,915 bales of cotton.

Nashville is the center of a large hard-wood producing region. An article in the "American" says that it has the entire control of what is known as the "Cumberland river poplar." It has had for the past few years access to the cedar timber groves of Middle and East Tennessee; while oak, tight-bark hickory, ash, cypress, chestnut, etc., abound in the forests to which it looks for its supply. Walnut is handled by the Nashville firms, but it does not com-

pare in volume with what it was ten or fifteen years ago. Of all grades and classes of lumber, walnut is the most scarce of all. From 750,000 to 1,000,000 feet are sold every year, and most of it is exported. When all the sawmills of Nashville are running on full time, which is the case when they can secure the logs, the number of men employed in the lumber business is about 2,000. The average for this year is 1,700. A close estimate of the money represented in all branches of the lumber and wood-working interests of the city is \$1,750,000. "Nashville is also the headquarters of the Concatenated Order of Hoo-Hoo, the lumbermen's fraternity. This organization, which has only been in existence about five years, has a membership among the lumber, newspaper, and railroad men of over 7,000."

As a winter-wheat flour market, Nashville stands second only to St. Louis. The number of barrels of flour made there in 1897 was 832,222, and the total output for 1898 was 963,140 barrels, making an increase of 12½ per cent. in 1898 over 1897. The sales of the flour mills of the city for 1897 aggregated \$3,695,029.22; the sales for 1898 were \$4,852,736.41.

The following is a detailed statement of the aggregate quantity of the different kinds of manufactured tobacco produced in Tennessee during the calendar year ending Dec. 31, 1898: Plugs, pounds, 2,273,969; smoking, 189,906; snuff, 2,524,834; total, 4,988,709.

Government reports show that 2,888,000 tons of coal were produced in the State in 1897.

Insurance.—The Treasurer says: "Particular attention is called to the showing of the last two years, by reference to which it will be seen that the collections exceeded those of the same period six years ago by nearly 50 per cent., and the collections are now nearly 5 times as large as they were in 1881 and 1882. Of the amount collected in the last two years, about \$10,000 was back taxes, due to the State by reason of the failure of the companies to report overhead business. This was ascertained by an investigation of the companies' books, and the entire tax, together with 6 per cent. interest, has been covered into the treasury without any cost to the State. These investigations will be continued until all companies have been investigated, and it is confidently expected that a very considerable sum will be realized for the State. The following figures will show what was collected for the periods mentioned above: Total receipts for biennial period ending Dec. 20, 1882, \$55,506.72; total receipts for biennial period ending Dec. 20, 1892, \$173,776.75; total receipts for biennial period ending Dec. 20, 1898, \$246,932.80."

Tax Liens.—The Comptroller says in regard to litigation on this subject: "In the summer of 1897 it was held by the honorable Court of Chancery Appeals, in the case of Dunn vs. Dunn, appealed from Hamilton County, that the lien of a mortgage on real estate covered by his mortgage, was superior to the State's lien for taxes, wherever the taxes were assessed against the property after the registration of the mortgage. It was also held by said court, in the same case, that the mortgagee might foreclose his mortgage in the courts of the State, and appropriate the entire proceeds of the sale to the payment of his debt, interest, and costs, to the exclusion of all taxes assessed against the property after the registration of the mortgage. As soon as this decision was published and became generally known, the payment of delinquent taxes as to a very large per cent of the mortgaged property within the State practically ceased. There was a very large amount of delinquent taxes due upon the mortgaged property throughout the State, which it was utterly impossible to collect if this decision stood as the law. Both Judges Clark and Hammond, of the United States Court, as well as many chancellors of

the State, were following the holding of the Court of Chancery Appeals in the Dunn case as a precedent, and were knocking out the taxes in all foreclosure suits where the proceeds of sale did not exceed the amount of the debt, interest, and costs."

The mortgagor in the case had, however, appealed, and the State engaged counsel, with the result that the Supreme Court reversed the decision of the Court of Chancery Appeals.

Legislative Session.—The General Assembly met in special session Jan. 17, and adjourned Feb. 5. In the Governor's call 18 subjects for legislation were specified. The first five related to the city of Memphis, whose citizens desired the passing of acts that would enable them to place their city in better sanitary condition, and so guard against the reappearance of yellow fever, and therefore asked for the special session. The measures were: To extend the city limits; authorize issues of bonds for waterworks and for sewerage, and for building school-houses in the territory annexed; to grant power for improving roads and to enlarge the taxing powers of the city. The bills were accordingly passed embodying the desired provisions. The bills providing for waterworks within the annexed territory were amended after their introduction, so as to provide that the bonds issued for the purpose should be payable in any legal tender, instead of in gold; and that before the \$2,000,000 of bonds were issued the question should be submitted to vote of the people. An amendment to submit the question of annexation to vote of the people of the territory to be annexed was defeated. But in June the Supreme Court decided that the act of annexation, which would have added 12 square miles of suburbs to the city and about 25,000 inhabitants, was unconstitutional.

Another subject mentioned in the call was the assessment for taxation of railroad, telegraph, and telephone properties—"to provide for back taxing and back assessing railroad, telegraph, and telephone property for State, county, and municipal purposes, and to provide the means and manner," to remedy defects in existing statutes for such taxation; to remedy defects in the assessments for 1897-'98, and validate the assessments for those years; "to enact such laws, prospective or retrospective, as may be needful to prevent taxpayers from enjoining, hindering, and delaying making assessments." The occasion for this legislation was the decision by Judge Clark of the Federal Court that the valuations of railroad property made by the Railroad Commission and adopted by the Board of Equalizers were too high, and the granting of an injunction against the collection of taxes assessed on that basis. Bills with the provisions named by the Governor were introduced, but only one relative to railroad assessments was passed. It only confirms an act already passed, ratifying the provision conferring power on the Railroad Commission to levy assessments.

Other objects mentioned in the call were: To consider the imposing of privilege taxes on certain kinds of business; to authorize municipal corporations to provide parks and maintain them, and to authorize an amendment to the charters of street railway companies enabling them to aid in securing and maintaining parks; to appropriate money for paying expenses of the session and carrying its legislation into effect; to amend the charter of Bolivar and to abolish that of Martin and reincorporate that town.

Acts were passed in accordance with these recommendations. Three bills were passed relative to the organization of park associations and the maintenance of parks near cities by the cities. These bills have reference to the plan to make a park of the Centennial site at Nashville. They authorize the

City Council to appropriate an amount not to exceed \$5,000 per year to maintain the park; authorize the city of Nashville to furnish the park with light and water; and authorize street car companies, whose lines run near such a park, to guarantee the payment of interest on bonds issued by park associations.

Another act relieves general merchants of the cigar- and fruit-stand tax, and graduates the privilege tax on circuses from \$200 in the larger counties to less amounts in the smaller counties.

The election of a United States Senator to fill the unexpired term of the late Isham G. Harris devolved upon the Legislature at this session. The candidates before the Democratic caucus were Thomas B. Turley, who had been appointed by the Governor to fill the vacancy until the Legislature should elect; Benton McMillin, member of Congress; and Gov. Robert L. Taylor. After a long deadlock it became evident that Gov. Taylor could not be nominated, and a majority of his supporters went to Mr. Turley, who was nominated on the one hundred and forty-fifth ballot, and was accordingly elected in joint session, receiving 91 votes to 88 for J. W. Baker, the Republican candidate.

The cost of the session was given as about \$20,000.

Just before the close a resolution was introduced in the House providing for the appointment of a joint committee to investigate certain alleged attempts to bribe members of the Legislature. It was amended so as to include investigation of any attempts at bribery during the regular session, and passed. The alleged attempts at bribery were in connection with the cigarette bill. The decision of the committee was that the charges were not sustained by the evidence.

Judicial.—A decision in January against members of an ice trust and the imposition of a fine of \$1,000 serve to show that the law against trusts can be enforced.

The Supreme Court rendered a decision in December sustaining the anticigarette law passed by the last Legislature, forbidding the importation and sale of cigarettes in Tennessee. The court says that cigarettes are not legitimate articles of commerce, and therefore are not within the provisions of the Federal Constitution regarding trade.

The United States Supreme Court declared in December against the validity of the State law of 1877, in as far as it gives resident creditors of a foreign corporation doing business in the State a preference in the distribution of assets, in the case of failure, over outside creditors; but in the case of a corporation which was a creditor in the same case the court held that the second section of the fourth article of the Constitution did not apply to the corporation as it did to individuals—that corporations were not citizens of States in the sense that they shall be entitled to all privileges and immunities of citizens in the several States.

Political.—The only State officers to be elected this year were the Governor and the three Railroad Commissioners.

At the State convention of Democrats at Chattanooga, June 29-30, resolutions were adopted calling for free coinage of silver, repeal of the law for 10-per-cent. tax on the issue of State banks, imposition of an income tax, and Federal taxation only for revenue for the support of an economically administered Government. They approved the war with Spain, and on State affairs expressed approval of the laws passed in the interest of labor and those for the reduction of criminal costs, and the creation of the Railroad Commission; also, of the State administration and the course of the State's members of Congress; they favored liberality in providing

for the public schools and the charitable institutions, and the compensation of coal-oil inspectors otherwise than by fees; and expressed sorrow at the death of Senator Harris, "the tallest, strongest oak in the Democratic forest of Tennessee."

Benton McMillin was made candidate for Governor by acclamation, no other name being mentioned.

The convention refused to approve the course of the Railroad Commissioners by resolution or by re-nomination. The candidates chosen were: N. W. Baptist, J. N. McKenzie, and Thomas L. Williams.

A Populist State Convention met at Nashville, July 6, and adopted resolutions declaring allegiance to the Omaha platform and opposing fusion of the national party, recommending that the next national convention be held at least thirty days before either the Democratic or the Republican. They favored the enactment into laws of ten measures of reform which were formulated by the State Committee in May and approved by a subcommittee appointed by the Democratic State Committee. These were:

"1. To restrict the operation of the Dorch law to the four largest counties, viz.: Davidson, Shelby, Hamilton, and Knox.

"2. Take the authority to appoint the election commissioners from the Governor, and require the Legislature to elect a State board of three election commissioners, one of whom shall be selected by the State executive committees of each of the three most prominent political parties in the State, to serve without compensation. Said board to be empowered and required to appoint three election commissioners from each county, each State commissioner naming one.

"3. It shall be made a felony for any person or persons to print, send, or cause to be sent out, or distributed any fraudulent ballots for any purpose whatsoever.

"4. To so redistrict the State that the number of circuit judges may be reduced not less than four and chancellors not less than two.

"5. The duties of Adjutant-General and Governor's private secretary shall be performed by same person, allowing only one stenographer.

"6. Clerical force at the Capitol be reduced at least 25 per cent.

"7. The further abolition of fee system and its abuses.

"8. Reduce fees of clerks and assistants of both branches of the Legislature.

"9. Each State official shall be required to make all contracts for printing, on State's account, for his office, and publish same, after verifying them to Comptroller.

"10. All visiting committees appointed by the Legislature shall be required to make to the Comptroller an itemized statement of all their expenses while actually on duty, and same shall be published."

Other demands were for revision of the assessment laws, reduction of official salaries, county local option as regards road building, and the requirement of receipts for all taxes as a prerequisite to voting, not of poll-tax receipts alone. The Democratic party was condemned for refusing to insert in its platform demand for the ten measures agreed upon by committees as stated above, and the Legislature for issuing bonds and creating unnecessary offices.

A motion to nominate a candidate for Governor was at first voted down, but on reconsideration it prevailed, and Robert N. Richardson was nominated.

The Prohibitionists met in State convention at Nashville, July 7. The resolutions declared allegiance to the principles of the party; and after

declaring that the organization sustained President McKinley's policy in the war for Cuban independence, said further:

"But it points with alarm to the total official indifference to, and complicity in, our legalized liquor traffic, that is daily more destructive to life and property.

"It looks with amazement and indignation upon the army canteen, when our brothers and sons, enlisted to serve their country, are detailed to do duty as bartenders; debauching their own moral sense and debasing the noble young men and boys that have gone out from our homes in the interests of humanity.

"It protests against official corruption growing out of frauds at the ballot box;" and further: "We heartily indorse the activity of the New York 'Voice' in investigating and exposing the saloon attachments to various eminent educational institutions in our land; and we would enter our most emphatic protest against any system of education which sanctions or suffers the presence of the bar-room or pool room in or about any educational institution of the land, or about the camp at Chickamauga Park."

W. D. Turnley was nominated for Governor.

The State Republican Convention met at Nashville, Aug. 17. The resolutions were mainly devoted to State issues. They recommended changes in the Constitution in regard to the courts; abolition of the poll tax as a requisite for voting; prohibition of direct or indirect double taxation; a non-partisan Board of Pardons; election of the Secretary of State, Treasurer, and Comptroller by the people at the same time with the Governor, and of the Attorney-General and reporter at the same time with the Justices of the Supreme Court; modifications of the registration laws; changes in the official ballot; restoration of the power of appointing election officers to county authorities, and other modifications of the election laws; abolition of the fee system; a non-partisan Railroad Commission; the withdrawal of convicts from the coal-mining business; a non-partisan jury commission in each county; repeal of laws depriving towns and cities of local self-government; publication of printing accounts of State officers, and of itemized statements of expenses of legislative visiting committees; and a law providing for the adoption of a better system of accounting by the various officers who collect or receive the public revenue, under which prompt periodical returns shall be made under oath, and under which, by reason of checks and counterchecks, it shall be impossible for any officer to steal from the people and conceal the fact for years, and then go unwhipped of justice." Resolutions were passed also declaring for the repeal of the civil-service law, and in favor of the appointment of Capt. J. W. Baker as commissioner to the Paris Exposition.

The nominations were: For Governor, James A. Fowler; Railroad Commissioners, Zack Taylor, R. A. Haggard, and James A. Greer.

The official count of the election gave the following figures of the vote for Governor: McMillin, Democrat, 105,840; Fowler, Republican, 72,611; Turnley, Prohibitionist, 2,411; Richardson, Populist, 1,722. N. W. Baptist received the highest vote for Railroad Commissioner, and is therefore elected for the term of six years; J. N. McKenzie came next and will hold the four years' term; and Thomas L. Williams will serve for two years.

The delegation in the House of Representatives of the Fifty-sixth Congress will stand 8 Democrats and 2 Republicans; and the State Legislature, 28 Democrats in the Senate and 77 in the House; 5 Republicans in the Senate and 22 in the House.

TEXAS, a Southern State, admitted to the Union Dec. 29, 1845; area, 265,780 square miles. The population, according to each decennial census since admission, was 212,592 in 1850; 604,215 in 1860; 818,759 in 1870; 1,591,749 in 1880; and 2,235,523 in 1890. Capital, Austin.

Government.—The following were the State officers in 1897: Governor, Charles A. Culberson; Lieutenant Governor, George T. Jester; Secretary of State, J. W. Madden; Treasurer, W. B. Wortham;



JOSEPH DRAPER SAYERS,
GOVERNOR OF TEXAS.

Comptroller, R. W. Finley; Superintendent of Public Instruction, James M. Carlisle; Commissioner of the Land Office, Andrew J. Baker; Commissioner of Agriculture and Insurance, Jefferson Johnson; Attorney-General, Martin M. Crane; Adjutant General, Woodford H. Mabry, who died Jan. 4, 1899; Health Officer, R. M. Swearingen, who died Aug. 7, and was succeeded by Walter F. Blunt; Chairman of the Railroad Commission, John H. Reagan; Chief Justice of the Supreme Court, Reuben R. Gaines; Associate Justices, Leroy G. Denman and Thomas J. Brown; Clerk, Charles S. Morse. All are Democrats.

Finances.—The outstanding bonds of the State aggregate \$3,992,030, of which \$3,254,040 are held by special funds and \$737,990 by individuals. These latter bonds consist of \$1,790, \$663,200, and \$73,000, bear 4, 5, and 7 per cent. interest, and are due in 1899, 1909, and 1904, respectively.

The Comptroller's report shows \$677,086.23 collected as occupation taxes by the State for the year ending April 30, 1898; and the total of occupation taxes collected in the counties was \$941,701.08.

The receipts of the Department of State for the year were \$62,833.

A decision of the Supreme Court in January sustains the validity of the courthouse, jail, road, and bridge bonds issued by the counties, holding that it is not necessary for a county commissioners' court to make provision for the levy of a tax to pay interest and establish a sinking fund for such bonds at the time they are issued. A constitutional amendment seeking to validate such bonds held by the school fund was voted down by the people in August, 1897. The decision of the court validates them by whomsoever held.

Education.—The law limits the School Board to investments of the fund in county bonds bearing not less than 5 per cent. interest. The Comptroller's report says that \$1,134,247 was in the treasury Dec. 1 to the credit of the permanent school fund, and that it could not be invested because the board could not buy 5-per-cent. county bonds at par, and the amount of this class of securities held for the fund has decreased \$344,491 the past year.

Of the 75,916,277 acres of unlocated public domain, including the bays that were in the State at the time of the adoption of the present Constitution, half was to be made a part of the perpetual school fund. But this fund has received only 23,970,000 acres and the proceeds of the sale of 4,131,617 acres, leaving over 9,800,000 acres still due; while 44,006,966 acres have been alienated for other

purposes, leaving only about 3,800,000 acres that may be turned into the school fund. This state of affairs threatens to unsettle the titles of many who have acquired land under the homestead law and in other ways.

A dispatch from Dallas, Oct. 18, said: "The grand jury of Webb County has found nearly 20 indictments against men for school-census frauds. More than 1,000 fraudulent names have been discovered on the rolls of the public schools of Laredo, the result of importing Mexican children across the Rio Grande. These indictments are the result of charges by the Populist candidate for Governor, that during the last seven years more than \$3,000,000 of State school funds had been paid to southwestern Texas politicians by the school-census padding plan." The school population of 1897 was given as 775,933.

The regents of the State University report pressing need of more room. An increase is reported in the income from university lands which has made possible the construction of the east wing of the main building, at a cost of \$38,642.50, and the repair of the foundation and walls of the auditorium.

The Agricultural and Mechanical College had an attendance of 391 in 1898, and some applicants were turned away on account of lack of room. Special appropriations, amounting to \$106,500 for buildings and improvements, are asked for the coming biennium.

Charities and Corrections.—The insane asylums are not only filled, but it is estimated that there are 1,000 lunatics in the jails, upon the poor farms, and under private care and restraint in the State.

The State School for the Deaf has about 190 pupils, the Institute for Deaf and Blind Colored Children about 75, and the State Orphans' Home about 350.

The Confederate Soldiers' Home seems not to be very liberally supported. The deficit for two years was given as about \$8,000, and many qualified applicants are refused admission on account of lack of funds.

At the close of November there were 4,483 penitentiary convicts, distributed as follows: Contract forces, 1,667; share forces, 640; railroad forces, 334; Harlem State farm, 189; Rusk Penitentiary, 781; Huntsville Penitentiary, 872.

In regard to the cost the Governor says:

"An examination of the official reports shows that for eight years past each of the penitentiaries has been, and is now, from a financial standpoint, a losing institution, the one at Rusk being by far the greater loser. Had it not been for the State and share farms, the contract farms, and the railroad forces, it would have been necessary to draw very heavily on the treasury every year to supply the deficit at both penitentiaries. According to the reports of those in charge of the system for the two years ending Oct. 31, 1898, the receipts were \$1,413,865.78, and the expenditures \$1,371,185.77.

Military.—The strength of the organized militia in April was 2,958. The quota under the first call for volunteers was 4,226. Five regiments were furnished by the State for the war.

Collections were made in the Sunday schools of the State for the purpose of giving a Bible and a sword to Capt. Philip, of the battle ship "Texas."

The battlefield of San Jacinto is to be converted into a park, and condemnation proceedings were instituted this year for securing the land. About 250 acres will be secured soon, unless the owners resist by appeal to higher courts.

Railroads.—During the first six months of the year, 63.08 miles of railroad were built in the State. The El Paso and Northeastern, which is to run

from El Paso, Texas, northeast 165 miles to White Oaks, New Mexico, will tap a fine coal country and furnish connections with new roads now building in western Mexico. The Pecos and Northern has been completed. The State has now about 10,000 miles of road.

On Feb. 28 the Supreme Court affirmed a decision against the Houston and Texas Central and Galveston, Harrisburg and San Antonio Railroads. These cases were tried in the district court and a judgment for \$673,109.56 was rendered against the Houston and Texas Central and \$447,567 against the Galveston, Harrisburg and San Antonio Railway Companies. The cases were taken to the court of civil appeals and affirmed. They were then taken to the Supreme Court, with this result. They had been brought by the State to recover the amounts claimed to be due by defendant companies to the State for indebtedness, which was paid during the civil war to the State in Confederate money. The money being worthless, the Attorney-General sued for payment of the debt.

The bondholders of Texas railroads procured an injunction in October against the Railroad Commission and the Attorney-General to prevent them from enforcing the tariff of cotton rates that the Commissioner had fixed; and, Dec. 1, the same United States court enjoined the railroads, the State Railway Commission, the Attorney-General of Texas, and all other persons from enforcing or using any rate made by the State Railway Commission since Aug. 10, 1894.

Products.—In an address by ex-Gov. Hubbard at the Omaha Exposition, he said: "Texas supplements her cotton by rapidly developing sugar culture, with an area larger by far than all the sugar lands of Louisiana. Our fruit culture in eastern Texas, with our early vegetable crops of the garden, amounts this year to \$5,000,000, and yet we are at but the beginning of this industry. Our butter amounts to \$3,000,000 annually. Our vast cattle ranges of the West graze to-day 3,500,000 head of cattle, and their annual increase of calves is put down in the official reports at 1,220,612. This property is valued now and assessed at \$30,000,000. Our sheep industry brings us next to Ohio, with, in round numbers, 3,000,000, with an annual increase of 700,000 lambs."

The cotton crop this year was 3,075,000 bales, according to Secretary Hester's report. The wool clip was 16,380,442 pounds. There are 4 cotton mills with 29,160 spindles, which used 12,090 bales in the year ending Oct. 1, 1897.

The gold product in 1898 was \$7,500.

Galveston.—The year was one of unusual prosperity in Galveston, due chiefly to these causes: The increased business of the port, the completion of the jetties, and negotiations with the Southern Pacific. A percentage of this increased business was due to diversification of crops. Farmers have found a market through Galveston for products which they could not before raise to advantage. They have not decreased the amount of cotton raised, but in growing their home supplies they have planted more than enough for home consumption, and it was such surplus that for the first time in 1898 began to seek a market through Galveston.

The increase in the number of vessels entered and cleared at Galveston the past year reflects the growth of the business of the port. The average size of the vessels has increased from 1,491 tons to 1,644 tons. The tonnage of vessels cleared at Galveston the past three years in the foreign trade was as follows: 1896, 505,105 tons; 1897, 699,311 tons; 1898, 899,403 tons. During 1898 there were 530 vessels entered and 555 cleared at Galveston in

the foreign trade. The value of Galveston's foreign imports for 1898 was \$2,297,169. The value of Galveston's foreign imports for the years 1895, 1896, and 1897 combined was \$1,776,323. Work on the jetties was completed last January. Deep water at Galveston has cost \$8,700,000. The depth of water is increasing gradually all the time, from the action of the tides and winds. There was an increase of the depth of water in the channel of about 6 inches during the past year.

The amount expended on public and private building improvements in Galveston during the year was \$460,000. The Government has spent and is spending \$982,000 in the construction of coast fortifications at Galveston and equipment for them. Jetty and harbor improvements for the year amounted to \$375,000. Wharf improvements amounted to \$100,000. Public improvements not classed as building amounted to \$142,000.

Mob Violence.—Three lynchings are charged to the State in 1898. The Governor says that White Cap outrages have become alarmingly frequent, and recommends prompt action by the Legislature to suppress them. In the neighborhood of Mount Pleasant many negroes were frightened into leaving the State in August by notices posted in the cotton fields warning negro cotton pickers to leave the country.

Two men were killed and 6 wounded in wharf riots at Galveston, Aug. 31.

Trouble over politics brought on a fight between whites and blacks at Fort Worth, Oct. 21, in which the independent candidate for sheriff, who was the leader of the independent movement against the White Men's Union Association, was shot and killed.

Affrays took place in various parts of the State on election day, the most serious of which was at Hubbard, Stephens County, where 3 were killed and 2 wounded, probably mortally. At Steuben, Hopkins County, 2 were killed; at Aubrey, Denton County, the sheriff was dangerously wounded by a man whom he shot; and at Sheffield, Trinity County, 1 man was killed and another fatally wounded.

At Dallas, Dec. 25, an affray took place which looked for a time like the opening of a "race war," but it was checked by the action of the police in making prompt arrests. One negro was killed, another seriously wounded, 1 white man died as a result of the affray, and about a dozen others, white and colored, sustained slight injuries.

Political.—State officers, members of Congress, and a State Legislature were to be elected this year, as well as county officers; and two proposed amendments to the Constitution were to be voted upon. Through carelessness in drafting the resolutions it was provided that the amendments should be submitted to vote the first Tuesday in November; and as November came in on Tuesday this was not the day for the general State election. The Attorney-General decided that the amendments must be voted upon at the time named in the Legislature's resolution, and therefore two elections were held.

Only two State tickets were in the field—Democratic and Populist.

The Populists were in convention at Austin, July 27-28.

On national issues, the resolutions demanded the construction of the Nicaragua Canal, opposed the issuing of Government bonds, and approved the war so long as it should be carried on for its avowed humane object and not for conquest. On State affairs they arraigned the administration for failure to carry out the platform pledges of the party, naming among the broken pledges the following: To reduce the number of district judges, which, on the contrary, had been increased; to protect the

interests of shippers; to give 500,000 acres of land for colored school purposes; to insure honest elections; to provide for six months' school during the year; to economize; to reserve the public domain for actual settlers; to reduce official fees and salaries; to prevent discrimination against any kind of lawful money; to work for free silver. Among the demands made were: Construction of a State railroad from the Red river to the Gulf; enactment of laws for the initiative and referendum, and the imperative mandate; no increase of interest-bearing debt without consent of electors; reduction of fees and salaries of officials to correspond with the price of labor and its products; efficient public schools—those for each race to be managed by trustees of their own color; no property qualification for voters; no railroad passes for officials, except sheriffs and constables; and a constitutional amendment repealing the amendment by which 1 per cent. of the permanent school fund may be transferred annually to the available fund, and investment of the permanent school fund at not less than 4 per cent. Further, they condemned the system of seven appellate courts as cumbrous and inefficient; criticised the management of the Soldiers' Home; and demanded repeal of the occupation-tax laws.

The ticket follows: For Governor, Barnett Gibbs; Lieutenant Governor, E. W. Kirkpatrick; Attorney-General, J. H. Davis; Comptroller, E. P. Alsbury; Land Commissioner, H. L. Bentley; Treasurer, J. B. Barry; Superintendent of Education, V. A. Collins; Railroad Commissioner, Jack Farley; Associate Justice of Supreme Court, T. J. McMinn; Justice of Criminal Court, J. D. Todd; State Chairman, J. S. Bradley.

The Democrats met in State convention at Galveston, Aug. 2. J. W. Blake was permanent chairman. There were two reports from the Resolutions Committee, the members differing on the question of expansion. The minority resolutions said on this subject:

"We believe that a colonial policy is contrary to the theory of this Government; and we are opposed to the acquisition of any territory inhabited by a people who are incapable of self-government, because we hold the right of self-government to be the best principle of our republic.

"We are opposed also to the acquisition of any territory, the government or control of which will necessitate an increase in the standing army of the United States.

"We reaffirm the declaration of Thomas Jefferson that all governments derive their just powers from the consent of the governed, and we are opposed to the establishment of any government by the United States without the consent of the people to be governed."

This report was tabled by a vote of 721 to 334. The majority report, which was adopted, had this to say on expansion:

"We favor the carrying out of the letter and spirit of the resolutions under which we intervened in Cuba, and we insist that the Cubans shall be permitted to establish an independent Government of their own; but in the event that the people of that island shall hereafter desire to be annexed to this country, and the terms of annexation can be satisfactorily arranged between the two Governments, we will welcome Cuba as a part of the territory of the United States.

"We favor the acquisition of Porto Rico and all other Spanish possessions in the Western Hemisphere.

"We reaffirm our faith in the Monroe doctrine and oppose the annexation or continued retention of the Philippine Islands or any territory upon the Eastern Hemisphere."

Further, the resolutions called for free coinage of silver and an income tax; denounced the revenue bill and the Dingley tariff; favored Government construction of the Nicaragua Canal; favored development of the navy and opposed increase of the standing army; and pledged support to William J. Bryan for renomination. They commended the several departments of the State administration, opposed free railroad passes, favored liberal appropriations to State institutions, declared that all public work should be done within the State when possible, and demanded that the Legislature make appropriations to enable the Railroad Commission to employ experts to examine into the traffic affairs of the railroad companies; and they called for a committee composed of State officers to formulate measures for tax reform and for guarding the State funds; also for repeal of the amendment allowing transfer of part of the permanent school fund to the available fund.

Resolutions were adopted favoring the holding of primaries for State officers on the same day, and denouncing mob law and White-Capism.

The candidates named were: For Governor, Joseph D. Sayers; Lieutenant-Governor, J. N. Browning; Attorney-General, Thomas S. Smith; Comptroller, R. W. Finley; Land Commissioner, George W. Finger; Treasurer, John W. Robbins; Railroad Commissioner, Allison Mayfield; Superintendent of Public Instruction, J. S. Kendall; Associate Justice of the Supreme Court, Thomas J. Brown; Judge of the Court of Criminal Appeals, M. M. Brooks; State Chairman, Charles K. Bell.

At the Republican Convention at Fort Worth, Aug. 16-18, E. H. R. Green was re-elected chairman of the State Committee. The resolutions adopted approved the national Administration and the conduct of the war; favored annexation of Porto Rico and Hawaii; increase of the army and navy; construction of the Nicaragua Canal; and the proposed deep-water improvements in Texas recommended by United States engineers. They accused the Democratic platform of inconsistency, and on State issues they disapproved the course of the Railroad Commission and the management of the school fund, and opposed the repeal of the amendment regarding the use of a part of the fund. They demanded a constitutional amendment to give to cities and towns exclusive and original jurisdiction in criminal matters within their limits, and recommended the constitutional amendment on pensions, denounced the fee bill, denounced mob violence, and said in conclusion:

"We believe that the efforts of the Republican party of Texas at the coming election should be confined to the election of representatives to Congress, and we therefore recommend that no State ticket be placed in the field this year, leaving to the respective counties and senatorial districts the option of placing representatives in the field in said counties and senatorial districts as may seem best to the interests of such organizations." Accordingly, no nominations were made for State offices.

The two constitutional amendments were voted upon Nov. 1. The one limiting compensation of members of the Legislature to \$5 a day for first 100 (formerly 60) days of session, and \$3 (formerly \$2) a day for the remainder of the session, was rejected by 255,121 against to 35,901 in favor. The other, permitting the pensioning of indigent and disabled Confederate soldiers and sailors and their widows, at not more than \$8 a month, the total expenditure not to exceed \$250,000 a year, was adopted by 56,074 in favor to 53,074 opposed.

At the election, Nov. 8, all the Democratic candidates were elected. The vote for Governor stood: Sayers, 285,074; Gibbs, 182,848. One Republican

was elected to Congress in Galveston; the other 12 are Democrats. The Legislature will stand: 148 Democrats, 2 Republicans, 7 Populists, and 2 Independents.

Judicial.—The Supreme Court gave decision on a law of 1875, providing that the purchaser of property sold for taxes should receive a deed from the assessor and the collector; the court held that it was unconstitutional, in so far as it requires the payment of taxes before making a defense against a void claim of title under an illegal tax sale.

TURKEY, an absolute monarchy in eastern Europe, western Asia, and northern Africa. The Sultan is the eldest prince of the line of Osman. Abdul Hamed II, born Sept. 21, 1842, the thirty-fourth Sultan of the Osmanli dynasty, succeeded his brother Murad V, who was deposed on Aug. 31, 1876, on the ground of insanity. The Sultan is recognized throughout most of the Mohammedan world as the Khalif, or temporal chief of Islam. In matters of religion and law he is advised by the Sheikh-ul-Islam and guided by the decisions of the Ulema, a body of eminent expounders of the sacred books, which sits in Constantinople. In civil and political matters the Sadvazzam, or Grand Vizier, is the chief executive officer under the Sultan. These two functionaries form with the ministers at the head of the several departments of state the Privy Council or Cabinet of the Sultan. This was composed in the beginning of 1898 as follows: Grand Vizier, Halil Rifat Pasha; Sheikh-ul-Islam, Jemalledin Effendi; Minister of War, Riza Pasha; Minister of Justice and Religious Affairs, Abdurrahman Pasha; Minister of Foreign Affairs, Ahmed Tewfik Pasha; Minister of Marine, Hassan Pasha; Minister of the Interior, Memduh Pasha; Minister of Finance, Nazif Pasha; President of the Council, Said Pasha; Grand Master of Artillery, Zeki Pasha; Intendant of Religious Endowments, Galib Pasha; Minister of Public Instruction, Zuhdi Pasha, Minister of Commerce and Public Works, Mahmud Pasha.

Area and Population.—The immediate possessions of the Sultan have an area of 1,147,578 square miles, with a population estimated at 24,535,700. The European vilayets, with an area of 65,909 square miles, have 5,812,300 inhabitants; Crete, area 2,949 square miles, 294,192; Asia Minor, area 209,669 square miles, 9,238,900; Anatolia, area 89,264 square miles, 2,472,400; Syria and Mesopotamia, area 215,349 square miles, 4,667,400; Arabia, area 173,700 square miles, 1,050,000; Tripoli, area 398,738 square miles, about 1,000,000. The vilayets of Bosnia and Herzegovina and the sandjak of Novi Bazar, occupied and administered by Austria-Hungary by virtue of the treaty of Berlin; Cyprus, administered by Great Britain under the Anglo-Turkish convention of June 4, 1878; the tributary principality of Bulgaria and the autonomous province of Eastern Roumelia united with it since 1886; as well as Egypt, which obtained autonomy in 1841 and is now occupied by British troops, are all integral parts of the Ottoman Empire by public law, although they have been removed from Turkish administration and jurisdiction. The European provinces in this position have an area of 75,010 square miles, with 5,304,981 inhabitants; Egypt an area of 10,698 square miles, with 9,811,544 inhabitants. The tributary principality of Samos, area 180 square miles, has 51,745 inhabitants. Including all the provinces in which the suzerainty of the Sultan is still recognized, the area of the Turkish Empire is 1,623,000 square miles and the estimated population 39,652,000.

Finances.—The Turkish debt on June 30, 1898, amounted to £ T. 144,127,899, not including £ T. 24,513,000 of war indemnity due to Russia and a huge floating debt of unknown amount. The loan of

1885, the defense loan of 1891, and the 3½-per-cent. loan of 1894, amounting to £ T. 19,830,426, are guaranteed by the Egyptian tribute. For the other debts the indirect taxes on liquors, salt, silk, and fisheries, stamps, the tobacco régie, tobacco tithes, and customs duty on tumbeki, or Persian tobacco, and the Cyprus and Eastern Roumelian tributes are pledged and are administered by an international council, yielding in 1897 the sum of £ T. 2,165,188, less £ T. 95,973 expenses. In January the Porte negotiated with the Ottoman Bank, the Deutsche Bank, and the Anatolian Railroad Company, one an Anglo-French, the others German corporations, for advances of £ T. 600,000, £ T. 200,000, and £ T. 400,000 respectively at 7 per cent. interest, to be repaid out of the Greek war indemnity. The railroad company stipulated for the right to connect its line with the Aidin Railroad, and when the English promoters of the latter objected the Porte decided to refuse the concession of the coveted branch line to the Germans and to the English the promised right to extend their line to Afasin and Kara Hissar. The Russian Government demanded out of the war indemnity of £ T. 4,000,000 the payment of £ T. 1,250,000 arrears of the Turkish war indemnity and charges for maintaining prisoners. The Porte finally agreed to pay the arrears in five annual payments. France, Great Britain, and Italy claimed out of the indemnity compensation for damages sustained by their subjects in the Constantinople riots of August, 1896, to the total amount of £ T. 80,000. The Porte replied in July to the identical note of these powers disclaiming responsibility, pointing out that similar disorders had occurred in other countries without the Government concerned being called upon to pay any indemnity, and suggesting that the injured foreigners should proceed against the perpetrators of the crimes from which they had suffered. The Council of the Public Debt reported for 1898 a revenue exceeding that of the previous year by £ T. 50,000, notwithstanding a decrease of £ T. 67,000 in the receipts of the tobacco régie. The decline in the business of the régie company, attributed to the smuggling of Persian tobacco, was the subject of a complaint from the German Government. The Greek indemnity was received in installments running from May to July, and was paid out again to satisfy debts and claims and for quick-firing field guns and Mauser cartridges.

The Army.—The empire is divided into 7 Orduis, or military circumscriptions, outside of which are the division of Hedjaz, in Arabia, and the division of Tripoli. The Nizam, or troops of the line, number about 350,000; the Redif, or territorial army, 300,000; the Mustahfiz, or territorial army reserve, 250,000; total, 900,000 men, of whom 750,000 have received a thorough military training. The infantry is armed with Mauser rifles of 7.65 and 9.5 millimetres caliber, with magazines holding 5 cartridges. All Mohammedan Turks are liable to serve three years in the active army, but can purchase a furlough after five months. Christians pay a military tax in lieu of service.

The Navy.—The only vessels remaining in the Turkish navy are the casemated ironclads "Assar-i-Tewfik," "Hamidiye," and "Messudiye," the turret ships "Asisiye" and "Osmaniye," two old broadside ships, 1 monitor, 8 gunboats, 2 destroyers, and 15 first-class and 7 second-class torpedo boats.

Commerce.—The total value of the external commerce in 1895 was 2,407,549,000 piasters for imports and 1,375,381,000 piasters for exports (1 piaster = 4.4 cents). The import of cotton cloths was 207,700,000 piasters; cereals and flour, 166,200,000 piasters; sugar, 157,600,000 piasters; wool and cotton stuffs, 143,100,000 piasters; quilting, 136,700,-

000 piasters; yarns, 125,200,000 piasters; coffee, 102,700,000 piasters; drugs and dyes, 99,100,000 piasters; rice, 78,800,000 piasters; leather and hides, 76,400,000 piasters; madapolams, 69,500,000 piasters; petroleum, 56,800,000 piasters; animals, 54,600,000 piasters; iron goods, 42,800,000 piasters; iron, 42,700,000 piasters; cashmeres, 41,800,000 piasters; timber, 37,500,000 piasters; butter and cheese, 34,000,000 piasters; haberdashery, 31,900,000 piasters; broadcloth, 31,500,000 piasters; paper, 28,800,000 piasters; silks, 27,700,000 piasters; coal, 27,000,000 piasters; carpets, 26,200,000 piasters; clothing, 24,500,000 piasters; glass, 22,700,000 piasters; linens, 22,200,000 piasters; fezes and hats, 21,000,000 piasters. The exportation of raw silk was 182,500,000 piasters; raisins, 177,500,000 piasters; grain, 113,600,000 piasters; figs, 67,800,000 piasters; mohair, 64,800,000 piasters; olive oil, 62,700,000 piasters; opium, 61,500,000 piasters; gall nuts, 57,800,000 piasters; cotton, 48,000,000 piasters; minerals, 47,100,000 piasters; wool, 46,900,000 piasters; hides, skins, and leather, 40,800,000 piasters; sesame, 31,900,000 piasters; coffee, 29,800,000 piasters; legumes, 24,500,000 piasters; carpets, 21,800,000 piasters; dates, 19,400,000 piasters; nuts, 17,700,000 piasters; animals, 17,300,000 piasters; seeds, 16,000,000 piasters; oranges and lemons, 13,600,000 piasters.

The values in piasters of the imports from and exports to various foreign countries in 1895 are given in the following table:

COUNTRIES.	Imports.	Exports.
Great Britain.....	931,522,000	596,391,000
France.....	274,221,000	382,251,000
Belgium.....	66,415,000	4,955,000
Netherlands.....	16,868,000	83,077,000
Germany.....	30,713,000	27,761,000
Austria-Hungary.....	486,297,000	131,699,000
Italy.....	65,569,000	47,559,000
Greece.....	44,425,000	21,627,000
Bulgaria.....	103,353,000	38,095,000
Servia.....	5,859,000	7,358,000
Roumania.....	76,388,000	19,903,000
Russia.....	165,184,000	40,065,000
Sweden and Norway.....	5,846,000	.....
Persia.....	70,377,000	1,344,000
Egypt.....	53,962,000	.....
Tunis.....	1,894,000	25,000
United States.....	7,395,000	22,353,000
Other countries.....	2,441,000	1,738,000
Total.....	2,407,549,000	1,375,381,000

The Macedonian Question.—The appointment of Bulgarian bishops in Divra, Monastir, and Strumnitza encouraged the Bulgarians to put forth greater efforts in their national propaganda in Macedonia and awakened the jealousy of the Greeks, Servians, and Roumanians. The Greek and Servian communities regarded the appointment of Bulgarian bishops for Divra and Monastir as an encroachment on their own sphere, while at Uskub the Bulgarians protested against the presence of the Servian bishop, and refused to open their schools and churches. During the winter the Ottoman authorities conducted a search in the vilayet of Kossovo for arms furnished by Bulgarian revolutionists. Numerous Mohammedans had been murdered, but the authorities did not act until a prominent and wealthy man named Kiazin Bey was assassinated at Vinitza. Hundreds of Macedonians fled into Eastern Roumelia, carrying stories of outrages committed by the Turkish soldiers and of tortures inflicted on prisoners in the jails of Uskub and other towns. In response to remonstrances from the Russian and Austrian consuls, the Vali promised to stop such persecutions. The Bulgarian diplomatic agent presented a memorandum to the Grand Vizier, stating that 592 persons, among whom were school-teachers and priests, had been arrested. The Bul-

garian complaints instance the torturing of 52 persons, of whom 3 died, and the violation of 11 women and girls. The secret Macedonian revolutionary committee printed a manifesto calling upon the people to rise against their oppressors in the spring. The Bulgarians were angered by the filling of public offices with Albanians. In Monastir an Albanian national movement was started to compete with the Greek, Bulgarian, Servian, and Wallachian organizations. In Kossovo also the Albanians were charged with oppressing the Servians. The Government of Prince Ferdinand took effective measures to check revolutionary preparations in Eastern Roumelia, although the presence of 600 Macedonian fugitives rendered this a difficult task. The Turkish commissioner, Saadeddin Pasha, removed the immediate cause of excitement by releasing the Bulgarian prisoners at Uskub, except 10, who were held for criminal trial, and promising to punish officials who had committed abuses. His investigation, which the Bulgarians pronounced a sham, disclosed no evidence of the alleged tortures. Immediately after the prisoners were released the agitation of the revolutionists was renewed and fresh arrests were made by the authorities. In March an armed band crossed the Bulgarian frontier, but returned on finding the villages strongly guarded by Turkish outposts. The vindictive spirit animating the rival Bulgarian and Servian propaganda was shown by a number of assassinations of which Bulgarians were the victims. The Servians were as energetic in establishing new schools and in attracting pupils as were the Bulgarians, and the Roumanians held their own, but the Greek schools declined. The Vlachs, until the Roumanian propaganda was instituted, were accounted Greeks, and hence all those who were educated in the Vlach schools were lost to the Greek schools, which nevertheless still outnumbered those of the other nationalities combined. The total sum spent upon their schools in Macedonia by Bulgaria, Servia, Roumania, and Greece is not less than 5,000,000 francs a year, with a corresponding benefit to the Christian peasantry, who are advancing rapidly in intelligence, while their Mohammedan neighbors remain in a state of ignorance. The Autonomist agitators aimed to secure an organic statute for Macedonia, with a Christian governor selected from the population. The autonomous province would include the vilayets of Salonica, Monastir, Adrianople, and Kossovo, and the capital would be the city of Salonica. The Bulgarians, who assert that they are in a large majority compared with the other nationalities, seek the co-operation of all nationalities in the effort to obtain autonomy. They would have the officials in each district selected from the prevailing nationality, the military force of the province recruited from the population and placed under the command of the Governor General, and religious affairs administered by an ecclesiastical chief belonging to the predominant nationality. The provincial Senate should fix the amount of taxation, of which amount one fifth would be paid over to the Turkish Treasury and four fifths would be retained for provincial purposes.

Albanian Disturbances.—The ferment in Macedonia caused by the Cretan question spread into Albania, rousing among that nation of warring clans and hostile creeds aspirations for autonomous institutions, and also exciting anew the expansionist ambition of the Montenegrins. The Albanian Nationalists wished to have their separate nationality recognized by the Europeans in the same way as was the Greek, the Servian, or the Bulgarian nationality, and desired from the Porte the proclamation of administrative autonomy for the vilayets

of Scutari, Janina, Kossovo, and Monastir. An organic statute was deemed by them to be the only means of preventing the periodical occurrence of bloodshed due to the intrigues of Greece, Serbia, and Montenegro. A feud between the Mohammedans and Christians of northern Albania gave occasion for diplomatic representations on the part of Montenegro. It began with the murder of a Christian notable in Berane. The Christians avenged his death by killing a number of Moslems suspected of being concerned in the crime. The Mussulmans, calling friends from other districts to their aid, attacked the Christian villages and after much fighting robbed and burned them, the inhabitants fleeing over the Montenegrin border with what cattle they could save. The Montenegrins had supplied both parties with rifles. The Sultan sent troops into the disturbed district to restore order and ordered Saadeddin Pasha, who had recently finished his Macedonian investigation, to find out the cause of the troubles, which were renewed in June with greater violence and ferocity. Many Christians were killed and hundreds of houses were destroyed. The Montenegrin Government complained that Mohammedans pursued Christian fugitives beyond the frontier, and made a demand for the restitution of the latter to their lands and for the rebuilding of their burned houses at the cost of the Turkish Government. The Porte dispatched troops once more to the scene and ordered that the villages should be rebuilt, charging the Montenegrins, however, with having instigated the murders and pillage that drew forth the vengeance of the Mussulmans. In September Saadeddin Pasha returned to pacify the Berane district once more. Mohammedan mountaineers were again ravaging the plains and plundering the unarmed rayahs, causing excitement among their warlike Montenegrin neighbors.

Armenian Grievances.—The Huntchak committee in London endeavored at the beginning of 1898 to raise anew the Armenian question by peti-

tioning the powers to insist on the execution of the promised reforms. The Turkish authorities in Asia were accused of persecuting Armenians. The Russian Government requested the Porte to keep the Hamidieh cavalry under better control and to withdraw the unruly forces from the frontier. There were 56 of these Kurdish regiments formed under the command of the tribal chiefs. In Van, where a revolutionist from the Caucasus named Derozan was secretly active, the police searched every house and expelled several thousand Armenian refugees whom they found. A military tribunal tried 33 Armenians and sentenced several to death. There was an Armenian Kaimakan at Van, and when in February the Porte removed the Governor of Zeitun the British ambassador pressed for the appointment of a Christian in his place. The Sultan promised the Armenian patriarch to comply with many of the national demands. In the beginning of June the Russian ambassador urged the Porte to restore to their homes 40,000 destitute Armenians who were living on charity in the Caucasus. The Grand Vizier raised difficulties, stating especially that the property that was abandoned by these fugitives had been divided among the Turks. The Russian Government repeated the demand until the Porte finally gave way months later and provided for their repatriation. In the beginning of August the Kurds were reported to be pillaging Armenian villages in the district of Ahlat, in the vilayet of Bitlis, where the Vali had been guilty of torturing Armenians in searching for revolutionists and hidden arms.

Revolt in Yemen.—The chronically discontented Arabs of Yemen, suffering in the spring of 1898 from a partial famine, rose in rebellion against their Turkish masters, whom they accused of injustice and extortion. The Sheikh Hamideddin headed the rising, which was quelled finally by the conciliatory policy of the new Vali, Hussein Hilmi Effendi, rather than by the 16,000 troops that were dispatched to the disturbed region.

U

UNITARIANS. The Unitarian churches in the United States returned for 1898 551 ministers, 454 churches, and 75,000 members. The numbers show an increase during the year of 16 ministers and 5,000 members, and a decrease of 1 church.

The annual meeting of the American Unitarian Association was held in Boston, Mass., in May. The Hon. Carroll D. Wright presided. The treasurer reported that his total receipts had been nearly \$73,000, and that a balance remained of \$11,000. The secretary represented that the necessity resting upon the association not to spend more money than the churches contributed had required the temporary abandonment of a business organization with a system of local superintendents for aggressive work which had been carefully planned by the National Conference and had achieved good results. The year had been signalized by the application for the first time of the budget system in making appropriations, under which the expenditures of the association were divided among the four departments of maintenance, publication, foreign missions, and home missions. The plan had worked well and had produced the most satisfactory financial record the association had been able to make for many years. The bequests received during the year, amounting to \$7,297, had been used to increase the general fund, which now amounted to \$58,067. A resolution had been passed by the board ordering that

the general and special funds of the association, with certain defined exceptions, be collectively invested, and that at the close of the financial year the income from the securities thus held shall be credited to the various funds according to the amount of their capital. In connection with the Japanese mission a union had been brought about between the Unitarian magazine "Shukyo" and the chief organ of liberal orthodoxy in Japan, "Rikugo Zasshi." The new magazine was to be called by the latter name and to be published by the Japan Unitarian Association. The educational institution in Japan, the Senshu Gakuin, would cease to be a normal school and become more a center for university extension work, and the activity of the mission would be more concentrated on church extension, the new magazine, the post-office mission, and publication work. The beginning of this mission was spoken of as "a frank departure from the customary aim and method of foreign missionary work. It was commissioned 'not to convert, but to confer,'" had proclaimed a new missionary motive, seeking to discover the good in all existing forms of faith, and had "recognized the underlying sympathy in all religions, and emphasized unities rather than diversities." The cost of conducting the experiment that had been made in this direction had diminished more rapidly than was usually the case with the home-mission work,

and would be defrayed in the ensuing year by the income of the Hayward fund. The association was enjoying close co-operation with other missionary bodies of the Unitarian fellowship, including the Western Missionary Council, the Women's National Alliance, the Young People's Religious Union, the Sunday-School Society, the Ladies' Commission, the trustees of the Church Building Loan fund, the Ministerial Union, and the Ministers' League, through the last two of which churches and ministers desiring settlement were brought into communication. In New England, the association had contributed \$11,627 to the support of 41 churches or missionary enterprises, of which 12 were "historic" churches in towns of stationary or declining population, kept alive for the sake of their associations and because they are needed by populations unable to support them; and 29 were new or revived churches which had not yet attained self-support. Eleven churches were aided in the Middle States at a cost of \$7,650. Most of these churches were growing steadily toward self-support. In the Southern States \$2,912 were expended in aid of 5 churches. The church at Charleston, S. C., was the only self-supporting church in this department. In the Western States 11 churches, 4 of which were in college towns, were aided, 3 missionaries were supported among the Scandinavians, and 2 special enterprises, 1 in Illinois and 1 in Wisconsin, were aided; all at a cost of \$11,943. Twelve churches on the Pacific coast, one in a college town, and all planted within recent years, were maintained with an expenditure of \$4,600. In all, 85 churches and 78 ministers were wholly or partly supported by the association, 22 of the churches holding loans from the Church Building Loan fund.

Unitarians in Great Britain.—A special meeting of the Unitarian (English) National Conference was held in London, May 31, to consider propositions for conferring certain new powers on the body which had been postponed from the regular meeting of the previous year at Sheffield. After consultation and the consideration of proposed amendments, a resolution was adopted instructing the committee of the triennial Conference to hold regular meetings "to consult and, when considered advisable, to take action in matters affecting the well-being and interests of the congregations which form the Conference, as by directing attention, suggesting plans, organizing expressions of opinion, raising funds to carry out the foregoing objects, or summoning, if it deem it needful, a special meeting of the Conference. Further, that the committee shall present to each Conference a full report of its proceedings and the action it has taken for the approval or otherwise of the Conference."

The annual meeting of the British and Foreign Unitarian Association was held in London, beginning June 1. Mr. T. Grosvenor Lee presided. The general report included reports of the Book and Tract Committee of grants during the year of 1,637 books and 113,286 tracts; of the Scottish Committee concerning efforts to develop the churches especially at Paisley, Kirkcaldy, and Aberdeen; of the Indian Committee, describing the rise and present condition of Unitarian work in India, which was still on a modest scale. The annual subscriptions had fallen off, but the chapel collections were the largest recorded. Legacies amounting to £6,000 had been left to the association. In an address defining the term "freedom" as used by Unitarians, the president maintained that while they were free it was not the freedom that united them, but the truths to which it led them. Prof. J. Estlin Carpenter maintained that the liberty held by Manchester College, which he represented, was within limits that presupposed the reality of theology. A paper

by the Rev. Alexander Webster on "Our Church Work in Spreading Religious Truth" was read in the absence of its author. The report of the Temperance Association showed a slight increase in the number of local societies. The report of the Postal Mission and Workers' Union was illustrated by the citation of inquiries sent in for religious literature, and insisted upon the efficiency of the work done by the mission. The Sunday-School Association reported that its receipts had amounted to £1,354.

UNITED EVANGELICAL CHURCH. The second General Conference of the United Evangelical Church met at Johnstown, Pa., Oct. 10. The statistical reports showed that the number of members was 59,190, and indicated a net gain of 8,950 in three years, or since 1895 when the previous General Conference met; with 426 itinerant and 214 local preachers; 5,234 adults and 8,165 infants baptized during the three years; 784 Sunday schools, with 10,602 officers and teachers and 74,651 pupils; and 24,507 members of the Keystone League of Christian Endeavor. The missionary treasurer reported that there had been an annual increase of contributions to the general treasury, and that the receipts for the past year had been more than \$11,000. The entire amount of missionary money raised and expended in the conference societies and the general society during the past year had been: Received, \$87,347; expended, \$76,493. The Foreign fund accumulated by the Woman's Missionary Society was about \$10,000. The amounts of collections for Church objects had been: For Conference treasury, \$9,516; for the Sunday-School and Tract Union, \$1,291; for educational purposes, \$18,223; for Church extension, \$5,491; for missions, \$106,267; for building and repairing churches and parsonages, \$355,975; for the Charitable Society, \$1,094. The Rev. Dr. I. L. Klephart attended the Conference as a fraternal delegate from the United Brethren Church, and spoke in his address of the unity in doctrine and spirit of the two Churches. The Board of Missions was instructed by the Conference to begin the necessary preliminary arrangements for establishing a mission in some foreign field, with recognition of the principle of the comity of missions; the location of the mission and the time for opening the same being left to its judgment. It was also directed to send out no more missionaries than the income would assure support for; and to assign the support of a definite part of the work to the Woman's Missionary Society. The Rev. T. W. Woodside, a minister of the United Evangelical Church, but a missionary in Africa in the service of the American Board, made a proposition to open a new station in West Central Africa, to be supplied and supported by this Church, but to be conducted under the supervision and control of the American Board. The Conference, while it expressed itself as preferring to direct and manage its own missions, not being yet ready for that, authorized the Board of Missions to make an arrangement with the American Board. A "twentieth-century celebration" was determined upon, to be held in the year 1900, under a programme to be prepared by the Board of Missions. Resolutions were passed discountenancing the "unevangelical practice" of not kneeling in public worship; emphasizing the duty of Conference trustees to report their transactions to the Annual Conference; urging the importance of the quarterly conference and the duty of official members to support and attend it; commending the itinerancy as the best safeguard to the original genius, life, and distinctive features of the Church, and pledging fidelity to it; condemning the license system for the sale of intoxicating liquors; commending the National Anti-Saloon League, to whose convention delegates were

appointed; advising the total refraining from such amusements as can not be taken in the name of the Lord Jesus, and condemnation of them; and disapproving of questionable methods (by fairs, raffles, etc.) of raising money for the Church. Reports were received from Albright College, Pennsylvania, Central Pennsylvania College, and Lafayette College, Oregon. The establishment of theological departments was recommended to all the higher institutions of learning. An invitation to take part in the Ecumenical Conference of Methodism to be held in 1899 was accepted, and provision was made for the representation of the United Evangelical Church on the Committee of Arrangements for the same and in the Conference.

UNITED STATES OF AMERICA, a federal republic in North America. The legislative power is vested in the Congress, consisting of the Senate and the House of Representatives. There are 90 Senators, 2 from each State, elected by the State Legislatures for six years, one third being renewed every two years. The House of Representatives has 357 members, elected by the ballots of all the qualified voters of the several States, which are divided into congressional districts, containing each approximately 173,900 inhabitants at the census of 1890. The executive power is vested in the President, who is commander-in-chief of the military and naval forces, and has a power of veto over acts of Congress which can be overcome by a two-thirds vote of both houses. The Vice-President is president of the Senate, and in case of the death, removal, or resignation of the President he succeeds the latter for the remainder of the term. In case of the death or disability of both President and Vice-President, the Secretary of State becomes acting President, and after him the other members of the Cabinet in their order. The Senate can remove the President after a trial on articles of impeachment presented by the House of Representatives, and other executive officers can be removed for unconstitutional actions by the same procedure. The President nominates the officers of the Cabinet, who are the heads of the eight administrative departments, and all other superior officials, but his appointments must be confirmed by the Senate. The President and Vice-President are elected by a college of electors chosen in each State in the manner that the Legislature prescribes, which is in almost every State by popular suffrage, their number being equal to the sum of the Senators and Representatives of the State. It is the custom of political parties to nominate in national convention their candidates for the presidency and vice-presidency and for the electors, who are chosen by each State on a collective ticket, to vote solidly for the candidates designated by their party beforehand. Thus the election of the President and Vice-President has come to be in fact, though not in form, by the direct vote of the nation. The term of the presidency is four years, and elections are held on the Tuesday following the first Monday in November. The President-elect is sworn on March 4. The President for the term ending March 4, 1901, is William McKinley, of Ohio, and the Vice-President is Garret A. Hobart, of New Jersey. The Cabinet at the beginning of 1898 was composed as follows: Secretary of State, John Sherman, of Ohio; Secretary of the Treasury, Lyman J. Gage, of Illinois; Secretary of War, Russell A. Alger, of Michigan; Attorney-General, Joseph McKenna, of California; Postmaster-General, James A. Gary, of Maryland; Secretary of the Navy, John D. Long, of Massachusetts; Secretary of the Interior, Cornelius N. Bliss, of New York; Secretary of Agriculture, James Wilson, of Iowa.

Upon the resignation of John Sherman, the

President, on April 26, nominated William R. Day, of Ohio, to be Secretary of State.

William Rufus Day was born in Ravenna, Ohio, April 17, 1849. He was the son of a lawyer of note, a judge of the Supreme Court of Ohio. After completing his collegiate course in the University of Michigan in 1870 he studied in the law school at Ann Harbor, and in 1872 began practice at Canton. His firm, which he usually represented in the courts, became known in a short time through the length and breadth of Ohio. He was a zealous Republican politician, but neither sought nor accepted office for himself until he was nominated by both Republicans and Democrats to a judgeship in the Court of Common Pleas in 1886. After a brief while he resigned from the bench to return to general practice. In 1889 he declined, on account of failing health, the appointment of judge of the United States district court. When President McKinley made up his Cabinet he appointed Judge Day Assistant Secretary of State.

John Hay was born in Indiana in 1838. He was graduated at Brown University, and studied law in Springfield, Ill. He was assistant secretary to President Lincoln through his term of office, and served for a time as assistant adjutant general with Gens. Hunter and Gillmore. He was secretary of legation at Paris in 1865-'67, and *chargé*



JOHN HAY, SECRETARY OF STATE.

d'affaires at Vienna in 1867-'68. Afterward he was secretary of legation at Madrid a year, and then for five years was an editorial writer on the "New York Tribune." In the administration of President Hayes he was First Assistant Secretary of State, and in 1881 he was president of the International Sanitary Congress in Washington. When President McKinley assumed office, Col. Hay was appointed ambassador to the Court of St. James, from which post he was called to succeed Judge Day as Secretary of State. He has published "*Castilian Days*," a biography of Abraham Lincoln (with John G. Nicolay), and a volume of poems.

James Albert Gary retired from the postmaster-generalship in April, and Charles Emory Smith, of Pennsylvania, was immediately appointed his successor.

Charles Emory Smith conducted the Philadelphia "Press" from 1880 till 1890, when he was appointed United States minister to Russia. After his return from St. Petersburg in 1892 he resumed his editorship.

Cornelius Newton Bliss retired from the Cabinet, and Ethan Allen Hitchcock, of Missouri, was appointed to succeed him as Secretary of the Interior on Dec. 21, 1898.



CHARLES EMORY SMITH, POSTMASTER-GENERAL.

Ethan Allen Hitchcock was the founder of a large glass-manufacturing company in Crystal City, Mo., and has taken an active part in building up the commerce of St. Louis. President McKinley appointed him minister to Russia on Aug. 6, 1897, and on Feb. 11, 1898, his rank was raised to that of ambassador.



ETHAN ALLEN HITCHCOCK, SECRETARY OF THE INTERIOR.

Area and Population.—The total area of the United States, including 3 Territories represented by Delegates in Congress and the Indian Territory, is 3,025,600 square miles, of which 55,600 square miles are covered by water. Alaska has an estimated area of 531,400 square miles. At the census of 1890 the population of the United States was 62,831,900, including 179,321 in the Indian Territory and 30,329 in Alaska. The estimated population of all the States and Territories, including Alaska, on Dec. 31, 1898, was 77,803,000.

By the annexation of Hawaii territory of 6,640 square miles, with 109,020 inhabitants in 1896, was added to the dominions of the United States; by the cession of Puerto Rico in the preliminary

treaty with Spain a territory of 3,670 square miles, with a population of 798,566 by the census of 1887; and by the accession of the Philippine Islands, ceded in the final treaty of peace, a territory of 52,650 square miles, with about 7,670,000 inhabitants. The Ladrone or Mariana Islands add 420 square miles, with 10,172 inhabitants.

Immigration.—The number of immigrants that arrived in the United States during the year ending June 30, 1898, was 229,299, a decrease of 1,533 as compared with 1897. Of the whole number, 135,775 were males and 93,524 females. The number entering the United States through Canada was 10,737. During the year 3,050 were debarred, 2,261 of these being paupers or persons likely to become a public charge, 417 contract laborers, 258 diseased, 79 assisted emigrants, 13 mentally defective, and 2 convicts. There were 199 more returned within a year after landing. Of the total number of immigrants over fourteen years of age, 43,057 could neither read nor write; of those over twenty years of age, 27,608 had \$30 or more, and 96,203 had less. Of the total number arriving, 52,531 were laborers, 23,656 servants, 16,243 farmers, 4,492 merchants, 3,826 tailors, and 3,229 shoemakers.

The Army.—By the act of Congress approved on March 8, 1898, the artillery force of the regular army was increased by two regiments, and by the act of April 26 the whole line was raised to the war strength of 200 men for each battery of heavy artillery, 176 for the light batteries, 100 for a troop of cavalry, and 106 for an infantry company, with an additional major to each regiment of infantry, and an additional second lieutenant to each battery. The total authorized strength on the war footing was 62,597 officers and men. The effectives on Sept. 1, 1898, were as follow:

TROOPS.	Officers.	Enlisted men.	Total.
Cavalry, 10 regiments	419	11,594	12,013
Artillery, 7 regiments	369	12,454	12,823
Infantry, 35 regiments	987	22,456	23,443
General officers, staffs, and administration	548	7,980	8,528
Engineers, hospital corps, etc. ....	...	1,879	1,879
Total	2,323	56,363	58,686

The President on April 23 issued a call for 125,000 volunteers, and on May 25 for 75,000 more.

The Navy.—The United States navy at the beginning of 1898 contained the battle ship "Iowa," of 11,410 tons displacement, 11,000 horse power, 16 knots speed, carrying 4 12-inch, 8 8-inch, and 6 quick-firing 4-inch guns; the battle ships "Indiana," "Massachusetts," and "Oregon," of 10,288 tons displacement, engines of 9,738 horse power for the first, giving a speed of 15.5 knots, 10,403 horse power for the second, making 16.2 knots, and 11,111 horse power for the third, making 16.7 knots, each having an armament of 4 12-inch, 8 8-inch, and 4 quick-firing 4-inch guns; the armored cruiser "Brooklyn," of 9,250 tons displacement, 18,769 horse power, a speed of 21.9 knots, and an armament of 8 8-inch guns and 12 5-inch quick firers; the armored cruiser "New York," of 8,200 tons displacement, 17,401 horse power, giving a speed of 21 knots, and an armament of 6 8-inch guns and 12 4-inch quick firers; the armored cruiser "Texas," of 6,315 tons displacement, 8,000 horse power, giving 21 knots speed, and an armament of 2 12-inch guns and 8 6-inch quick firers; the cruiser "Columbia," of 7,375 tons displacement, engines of 18,509 horse power, making a speed of 22.8 knots, armed with 1 8-inch, 2 6-inch, and 8 quick-firing 4-inch guns; the "Minneapolis," of the same size as the foregoing and carrying the

same armament, with engines of 20,862 horse power, making 23 knots; the "Olympia," of 5,800 tons displacement, engines of 17,813 horse power, a speed of 21.5 knots, and an armament of 4 8-inch and 10 quick-firing 5-inch guns; the "Baltimore," of 4,413 tons displacement, 10,000 horse power, 20 knots speed, and an armament of 4 8-inch and 6 quick-firing 6-inch guns; the "Philadelphia," "San Francisco," and "Newark," one of 4,324, the others of 4,098 tons displacement, each armed with 12 6-inch guns, and having engines developing 8,815 horse power for the first, giving 19.5 knots speed, 9,913 horse power for the second, giving the same rate, and 8,862 horse power for the third, giving 19 knots; the "Charleston," of 3,730 tons displacement, carrying 2 8-inch and 6 6-inch guns, and making 18.2 knots with engines of 8,550 horse power; the "Raleigh" and "Cincinnati," of 3,183 tons displacement, armed with 1 6-inch and 10 5-inch quick-firing guns, and making 19 knots with engines of 10,000 horse power; the "Atlanta" and "Boston," of 3,000 tons displacement, with 4,030-horse engines, making 15.6 knots, armed with 2 8-inch and 6 6-inch guns; the "Chicago," of 4,500 tons displacement, with engines of 5,080 horse power, making 15 knots, carrying 4 8-inch and 8 6-inch guns; the "Detroit," "Marblehead," and "Montgomery," of 2,080 tons displacement, one of 5,227 horse and one of 5,480 horse power—each making 18.5 knots—the third, of 5,580 horse power, making 19 knots, and all armed with 95-inch quick firers; the "Bennington," "Concord," and "Yorktown," of 1,700 tons, 3,436 horse, 3,408 horse, and 3,392 horse power, giving respectively 17.5, 16.8, and 16 knots, each vessel carrying 6 6-inch guns; and the "Nashville," "Wilmington," and "Helena," of 1,370 tons displacement, the first having a speed of 14 knots, with 1,750 horse power, the others 13 knots, with 1,600 horse power, each of them armed with 3 4-inch quick firers.

The four battle ships carry their heaviest guns in turrets fore and aft protected with 15-inch armor, their other heavy guns in turrets on each beam plated with 8-inch to 6-inch armor. The "Iowa" has 14-inch, the others 18-inch side armor, three fifths of their length, with vertical armor projecting above up to the armored deck of 3-inch steel and bulkheads fore and aft, 12 inches thick in the "Iowa," 17 inches in the others. The "Texas" has a vertical 12-inch belt extending two thirds of her length, a 3-inch deck, and 12-inch bulkheads, and carries her heavy guns in turrets protected with 12-inch plates. The "Brooklyn" and "New York" have a steel belt over their vital parts varying from 8 to 8 inches, and a deck varying from 2.5 to 6 inches, and carry their armored guns in armored barbettes. All the other cruisers are deck-protected, the thickness of the deck varying with the size of the vessel. The heavier vessels have their guns protected by shields, and the ammunition hoists by tubes of steel. The monitors are old vessels refitted, carrying heavy guns and having good protection, but slow and unwieldy of movement, the "Puritan" displacing 6,000 tons, the "Miantonomoh," "Terror," and "Monadnock" 4,000 tons. The "Monterey" and the ram "Katahdin" are not more efficient for offensive operations, and the earlier monitors, the "Catskill," "Lehigh," "Jason," "Nahant," and "Montauk," carrying 15-inch smooth-bores in armored turrets, are fit only for harbor defense. Three more of this class were newly engined early in the year. The torpedo flotilla consisted of the "Dupont," "Cushing," "Ericsson," "Foote," "Porter," "Rodgers," and "Winslow," from 140 to 170 feet long, having a nominal speed of 22 knots, and the smaller "Gwynn" and "Talbot."

Just before the war with Spain the new English-built Brazilian cruisers "Admiral Abreu" and "Amazonas" were secured for the navy and renamed "New Orleans" and "Albany," each having a displacement of 3,600 tons, 7,500 horse power, a speed of 20 knots, and an armament of 6 6-inch and 4 4.7-inch quick firers.

During the progress of the war the Navy Department contracted for 16 torpedo-boat destroyers, to be completed within a year and a half, to have a displacement of 400 tons each, with two quadruple-expansion engines of 11,000 horse power and twin screws, giving a speed of 28 knots, to be protected with 2 inches of inclined nickel steel armor over cellulose, to carry 100 tons of coal, and have a steaming radius of 5,000 miles, and to be equipped with 3 12-pounders, one of them on the conning tower, 5 6-pounders, and 2 torpedo tubes in the bow. The "Kearsarge" and "Kentucky," battle ships of 12,000 tons and 10,000 horse power, were laid down before the war began. In these vessels turrets for the 8-inch guns are placed above those for the 13-inch guns, instead of beside them, as in the "Oregon," saving the weight of two smaller turrets, while increasing the power of the fore and aft batteries, at the same time enabling them to carry 14 5-inch rapid firers in the broadside battery where the "Oregon" carries 4 6-inch guns. The "Alabama," "Illinois," and "Wisconsin" are of equal size, with a speed of 16 or 17 knots, the greatest possible cruising radius, and a secondary armament of 14 6-inch rapid firers, without any 8-inch guns. The naval programme authorized by the act of May 4, 1898, provided for 3 first-class battle ships, 4 coast-defense monitors, 12 torpedo boats, and 16 destroyers. The battle ships will be of 13,500 tons displacement, and will cost, exclusive of armor and armament, \$3,000,000 each. They were contracted for in September, to have a speed of 18½ knots, 2,000 tons coal capacity, and a radius of 10,000 miles at 10 knots, and have been named the "Maine," the "Ohio," and the "Missouri." The coast-defense vessels "Arkansas," "Connecticut," "Florida," and "Wyoming," to be completed in two years at a cost not exceeding \$1,500,000 for each one, will be built of steel, with double bottom and water-tight divisions, displacing 2,700 tons, with coal capacity for 200 tons, and will carry 2 12-inch guns in a turret forward, 4 4-inch rapid-firers, and in the secondary battery 3 6-pounder rapid-fire and 4 1-pounder automatic rifles; the side armor will be 11 inches in the thickest part, tapering down to 5 inches. The programme presented to Congress in December, 1898, includes, besides three battle ships, 3 heavily armored cruisers of 12,000 tons, costing \$4,000,000 each; 3 protected cruisers of 6,000 tons, costing \$2,150,000 each; and 6 unarmored cruisers of 2,500 tons, costing \$1,141,800 each.

Pensions.—The total number of pensioners on the roll on June 30, 1898, was 993,714, showing an increase in the year of 17,700. There were 327,080 invalids, 655 nurses, and 92,557 widows and dependents drawing army pensions and 4,833 invalids and 2,300 widows and dependents drawing naval pensions under the general law; and 399,366 invalids and 119,785 widows and dependents connected with the army and 14,543 invalids and 5,944 widows and dependents connected with the navy were receiving pensions under the act of June 27, 1890. The number of claims allowed during 1898 was 52,648, making a total of 1,579,324 since 1861. The disbursements for the year were \$145,748,865.

Public Lands.—The number of homestead entries during the year ending June 30, 1898, embraced 6,206,557 acres; entries under the timber-culture act, 160 acres. The area of public lands remaining vacant and subject to entry and settle-

ment on July 1, 1898, was 579,368,274 acres, of which 316,716,303 acres had been surveyed.

The Patent Office.—The number of applications for patents during the calendar year 1897 was 45,661; for design patents, 2,150; for reissues, 94; for registration of trade-marks, 1,946; for registration of labels, 66; for prints, 26; number of caveats filed, 2,176; total, 52,119. The number of patents granted, including designs and reissues, was 23,794; of trade-marks registered, 1,671; of labels, 14; of prints, 16; total, 25,495. There were 4,891 patents withheld for non-payment of fees. The number of patents that expired was 12,926. The total number of applications since 1837 was 1,040,035, and the number of caveats filed was 107,415, while the total number of original patents granted was 602,268, including designs. The receipts of the Patent Office up to the end of 1897 were \$34,300,331; expenses, \$29,293,672.

Commerce.—The total values of the imports and exports of merchandise for a decade past have been for each successive financial year as follows:

YEAR.	Imports.	Exports.
1889	\$745,131,652	\$742,401,375
1890	789,310,409	857,828,684
1891	844,916,196	864,490,810
1892	827,402,462	1,030,278,148
1893	866,400,922	847,665,194
1894	654,994,622	692,140,572
1895	731,969,965	807,538,165
1896	779,724,674	892,606,988
1897	764,730,412	1,050,993,556
1898	616,049,654	1,210,291,913

The total volume of trade was \$1,826,341,467, previously exceeded only in 1892, when it amounted to \$1,857,680,610. The excess of merchandise exports over imports attained the sum of \$594,242,259, having grown from \$75,568,200 in 1895 to \$102,882,264 in 1896, then to \$286,263,144 in 1897, and in 1898 to the above extraordinary figure. Including specie, there was a net balance in favor of the United States of \$513,437,634 in 1898. In 1889, and again in 1893, there was a small excess of imports, reducing the average excess of exports for the last ten years to \$150,382,899. The excess of 1897 exceeded all previous records, the nearest to it being \$264,661,666 in 1879. The amount of the exports in 1898 not only exceeded by 16 per cent. those of 1897, the highest figure before achieved, but surpassed those of any other country, being 7 per cent. greater than the exports of Great Britain, whose export trade had never before been excelled by that of another nation. More remarkable than its amount was the character of the increase in exports. It was not due, in the main, to enhanced shipments of the great American staples; the increase was shared by a great variety of products. Breadstuffs reached a total of \$324,706,060, against \$191,090,341 in 1897; provisions, \$189,222,981, against \$162,203,832; cotton, \$225,789,143, against \$223,586,125, and mineral oil, \$55,171,001, against \$61,733,685. These together give a total of \$794,898,185, showing an increase of \$156,284,202, of which \$133,615,719 was in breadstuffs. Three fourths of the increase was due to the expansion of the trade in other commodities besides these, and three fourths of that to increased exports of manufactured goods. While the exports of this class have grown year by year, the imports have diminished, until, in 1898, the United States shipped abroad a greater value than the imports amounted to. American manufactured goods are ousting European manufacturers from the American market, are competing successfully in neutral markets, and are invading the European markets. Exports of agricultural implements have grown in ten years from \$2,600,000 to about \$6,000,000, locomotive engines from \$500,000 to \$4,000,000, bar

iron from 1,500,000 pounds to 10,000,000 pounds, builders' hardware from \$1,442,635 to \$4,152,836. The total value of exports of iron and steel has increased from \$17,763,000 to more than \$65,000,000, of leather and manufactures thereof from less than \$10,000,000 to more than \$20,000,000, of soap from 19,000,000 to 27,000,000 pounds, of glass and glassware from \$881,000 in value to \$1,208,187, of rubber manufactures from \$866,867 to \$1,807,145. Cotton manufactures and chemicals have each increased 50 per cent. Manufactures of brass have increased in value from \$308,104 to \$1,400,000, and manufactures of copper, including ingots and bars, from \$3,812,798 to \$31,621,125. The total exportation of manufactures, which amounted to \$130,300,087 in 1888, in 1898 exceeded \$290,000,000.

The values of the different classes of imports for the fiscal year 1898 are given as follow: Animals, \$4,674,125; art works, \$2,263,427; books, maps, and engravings, \$2,883,992; bristles, \$1,249,119; breadstuffs, \$3,152,067; chemicals, drugs, dyes, and medicines, \$41,471,291; clocks and watches, \$966,422; coal, bituminous, \$3,401,301; coffee, \$65,067,631; cotton, and manufactures of, \$37,873,708; earthenware and china, \$6,687,360; fibers, vegetable, and manufactures of, \$35,345,980; fish, \$6,076,690; fruits and nuts, \$14,566,950; furs, and manufactures of, \$7,881,172; glass and glassware, \$3,782,617; hats and bonnets, materials for, \$2,244,349; hides and skins, \$37,068,932; hops, \$648,155; India rubber and gutta-percha, and manufactures of, \$26,011,635; iron and steel, and manufactures of, \$12,626,431; jewelry and precious stones, and manufactures of gold and silver, \$10,388,880; lead, and manufactures of, \$2,600,779; leather, and manufactures of, \$11,414,125; liquors, spirituous and malt, \$3,336,324; molasses, \$564,016; musical instruments, \$920,094; paints and colors, \$1,065,088; paper, and manufactures of, \$2,838,788; paper stock, \$2,870,323; salt, \$524,661; seeds, \$1,231,766; silk, manufactures of, \$23,523,665; silk, unmanufactured, \$32,110,066; spices, \$2,404,629; sugar, \$60,472,749; tea, \$10,054,283; tin, in bars, blocks, pigs, or grain, \$8,776,151; tobacco, and manufactures of, \$9,092,114; toys, \$2,214,482; wines, \$5,969,180; wood, and manufactures of, \$18,861,923; wool, and manufactures of, \$31,607,463; all other articles, \$62,264,801; total merchandise, \$616,049,654.

The values of the different classes of exports, the produce and manufacture of the United States, for the year ending June 30, 1898, are as follow: Agricultural implements, \$7,609,732; animals, \$46,243,406; books, maps, and engravings, \$2,434,325; breadstuffs, corn, \$74,196,850; breadstuffs, wheat, \$145,684,659; breadstuffs, wheat flour, \$69,263,718; carriages, horse and railroad cars, \$3,424,419; chemicals, drugs, dyes, and medicines, \$9,441,763; clocks and watches, \$1,727,469; coal, anthracite, \$5,906,171; coal, bituminous, \$5,777,578; copper ore, \$824,165; copper manufactures, \$32,180,872; cotton, unmanufactured, \$230,442,215; cotton, manufactures of, \$17,024,092; cycles, and parts of, \$6,846,529; fibers, vegetable, and textile grasses, \$2,557,465; fish, \$4,674,659; fruits, apples, green or ripe, \$1,684,717; fruits and nuts, all other, \$7,328,593; furs and fur skins, \$2,986,970; hops, \$2,642,779; instruments for scientific purposes, \$2,770,803; iron and steel, manufactures of, \$70,406,885; leather, and manufactures of, \$21,113,640; musical instruments, \$1,383,867; naval stores, \$9,155,144; oil cake, oil-cake meal, \$12,581,534; oils, animal, \$6,502,332; oils, mineral, crude, \$4,343,262; oils, mineral, refined or manufactured, \$51,782,316; oils, vegetable, \$12,019,069; paper, and manufactures of, \$5,494,564; paraffin and paraffin wax, \$6,030,292; provisions, beef products, \$31,906,384; hog products, \$110,801,151; oleomargarine, \$8,290,-

710; other meat products, \$7,246,956; dairy products, \$9,095,759; seeds, clover, \$1,892,101; seeds, all other, \$1,062,622; spirits, distilled, \$1,850,353; sugar, molasses, and sirup, \$1,061,929; sugar, refined, \$301,511; tobacco, unmanufactured, \$22,171,580; tobacco, manufactures of, \$4,818,493; vegetables, \$2,381,788; wood, and manufactures of, \$37,513,252; all other articles, \$98,256,999; total, \$1,210,291,913.

The imports of coal were 1,273,311 tons, all bituminous; exports, 1,326,582 tons of anthracite and 2,682,414 tons of bituminous. The imports of coffee were 870,514,455 pounds. Of hops, 2,375,922 pounds were imported and 17,161,669 pounds exported. The imports of sugar were 2,689,920,851 pounds; of molasses, 3,610,547 gallons; exports of refined sugar, 6,047,608 pounds; of molasses and sirup, 11,391,370 gallons. The imports of tea were 70,957,715 pounds. Of salt, 342,254,106 pounds were imported. The quantity of tin imported was 63,938,889 pounds. The exports of breadstuffs consisted of 208,744,939 bushels of corn, 148,231,261 bushels of wheat, and 15,349,943 barrels of flour. Of oil cake and meal, 355,934,022 pounds were exported. The exports of apples were 605,390 barrels. The provision exports included 439,525,984 pounds of beef, 1,659,996,202 pounds of pork products, and 136,907,813 pounds of oleomargarine. The exports of paraffin were 154,628,460 pounds. The exports of clover seed were 31,155,881 pounds. Of distilled spirits, 2,978,651 proof gallons were exported. The exports of raw cotton amounted to 3,850,264,295 pounds. Animal oil exports were 1,568,040 gallons; exports of crude mineral oil, 113,297,397 gallons. The exports of unmanufactured tobacco were 263,020,214 pounds.

The commerce of the year ending June 30, 1898, was distributed among foreign countries as shown in the table on this page.

The imports of coin and bullion for the fiscal year 1898 were \$120,391,674 of gold and \$30,927,781 of silver, making the total value of imports, including specie, \$767,365,909. The exports of gold coin and bullion were \$15,406,391 and of silver \$55,105,239, making the total value of exports, merchandise, and specie \$1,280,803,543.

From July to December the imports of merchandise continued to show a diminution compared with the preceding year, and the exports still increased. The total value of imports for the twelve months ending Dec. 31, 1898, was \$633,664,634, compared with \$742,595,229 for the calendar year 1897. Of the total \$267,797,915 represented free merchandise, compared with \$377,288,396 in 1897, and \$365,866,719 dutiable merchandise, compared with \$365,806,833. The total value of exports for the calendar year was \$1,254,925,169, compared with \$1,099,709,045 for 1897. Domestic exports were \$1,233,600,636, compared with \$1,079,834,296; foreign exports, \$21,324,533, compared with \$19,874,749. The balance of trade in favor of the United States was \$621,260,535, compared with \$357,113,816 in 1897. The exports of breadstuffs, provisions, cotton, and other agricultural products were larger than in any previous calendar year. The exports of products of the mines have been exceeded only twice, and were greater than those of 1897 by 25 per cent. The exports of iron and steel were a third greater than in 1897 and twice as great as in 1896, while the imports of this class of articles has declined one third. The exports of cotton cloths were 20,000,000 yards more than in 1897. Of mineral oils 1,000,000 gallons a month were shipped in excess of the exports of 1897. In the exports of agricultural implements the increase was 60 per cent., and in cars and carriages there was a large increase. In 1890 the imports of manufactures for the calendar year were \$375,899,342 in value, and the exports \$157,126,803. In 1898, although the population has in the meantime increased 20 per cent., the imports were only \$249,000,000, while the exports were \$306,000,000, having almost doubled in eight years. The imports of the principal classes of raw materials, in silk, rubber, fibers, and hides, were greater in 1898 than in any preceding year, indicating increased activity in the important

COUNTRIES.	Imports.	Foreign exports.	Domestic exports.
Great Britain.....	\$108,945,185	\$6,542,303	\$534,398,302
Germany.....	69,697,378	1,868,872	153,171,100
France.....	52,730,848	1,668,573	93,790,717
Canada.....	23,143,411	5,848,455	69,074,839
Netherlands.....	12,525,065	856,977	63,417,547
Brazil.....	61,750,369	54,085	13,262,951
Belgium.....	211,877	16,802	47,466,600
Japan.....	25,223,610	30,852	20,354,689
Italy.....	20,332,637	222,861	23,067,997
Mexico.....	27,238,459	1,350	4,694,663
British India.....	20,326,496	824	9,902,070
China.....	15,232,477	327,792	9,233,994
Cuba.....	17,167,380	138,483	5,773,672
Hawaiian Islands.....	5,573,898	88,876	15,520,067
Australasia.....	10,632,187	150,552	9,236,678
British West Indies.....	14,529,335	11	1,201,405
Dutch India.....	3,573,565	26,156	10,302,389
Spain.....	875,338	14,105	12,013,037
British Africa.....	211,877	16,802	12,680,619
Denmark.....	5,915,879	460,224	5,848,846
Argentine Republic.....	2,119,337	.....	263,870
Austria-Hungary.....	4,716,510	228,059	5,469,833
Venezuela.....	864,529	999	23,797
Russia, Baltic.....	2,825,606	17,074	6,224,128
Sweden and Norway.....	2,075,053	2,393	6,311,308
British Columbia.....	4,631,744	150,635	4,106,989
Maritime provinces.....	4,269,437	299,531	4,095,331
Colombia.....	5,183,604	79,317	3,204,440
Hong-Kong.....	746,547	31,568	6,233,607
Portugal.....	2,605,370	.....	3,532,037
Chili.....	3,736,307	1,772	2,349,355
Egypt.....	5,017,707	310	816,605
British Guiana.....	3,060,968	44,304	1,703,071
Costa Rica.....	3,890,419	17	127,787
Puerto Rico.....	1,431,625	24,317	1,481,699
Haiti.....	876,582	277,029	2,691,550
Santo Domingo.....	2,382,139	64,079	1,067,179
Guatemala.....	1,864,808	39,142	1,162,572
Uruguay.....	1,130,239	84,009	1,772,490
Portuguese Africa.....	15,343	401	2,697,637
Russia, Black Sea.....	1,714,081	.....	1,084,380
Aden.....	2,017,756	.....	593,345
Turkey in Asia.....	78,352	350	433,626
Turkey in Europe.....	2,119,337	.....	189,075
Peru.....	714,247	4,125	1,398,570
Nicaragua.....	1,095,865	189,306	910,300
Dutch Guiana.....	1,457,135	2,364	406,030
French West Indies.....	30,898	12,086	1,605,044
Ecuador.....	765,590	1,421	853,772
Salvador.....	799,145	15,941	780,634
Newfoundland.....	872,115	4,833	1,170,900
Honduras.....	784,741	45,410	706,733
Bermuda.....	459,282	24,715	962,300
All other Africa.....	662,847	.....	559,188
French Africa.....	746,836	3,386	664,800
Danish West Indies.....	327,759	3,588	704,034
Greece.....	910,390	.....	127,559
British Honduras.....	171,920	12,712	568,399
Russia in Asia.....	111,050	.....	618,015
Dutch West Indies.....	174,243	3,168	541,236
All other Asia.....	78,352	350	433,626
French Oceania.....	185,121	11,899	289,286
Azores and Madeira.....	23,797	999	364,529
St. Pierre and Miquelon.....	161,030	9,241	195,764
Gibraltar.....	32,519	497	304,332
Canary Islands.....	26,283	2,538	272,289
Madagascar.....	16,772	.....	226,738
French Guiana.....	12,551	1,018	149,023
French East India.....	.....	.....	152,000
Iceland and Greenland.....	144,227	.....	225
Korea.....	.....	.....	125,936
Samoa and Tonga.....	68,605	.....	39,982
Roumania.....	12	.....	111,154
Malta.....	13,476	.....	64,352
Tripoli.....	65,810	.....	.....
Spanish Africa.....	33	.....	29,674
Bolivia.....	.....	224	20,451
Liberia.....	6,670	130	12,558
Servia.....	12,095	.....	.....
Paraguay.....	.....	.....	699
All other islands and ports.....	8,844	.....	50,587
Total.....	\$616,050,654	\$21,190,417	\$1,210,291,913

lines of manufacture. The aggregate imports of these four classes were \$110,000,000 in value, against \$97,000,000 in 1897, \$85,000,000 in 1896, \$97,000,000 in 1895, and \$69,000,000 in 1894. In the important group of manufactures comprising silks, cotton, wool, and other textile fabrics, leather, china, and glassware, iron and steel goods, and chemicals, the total imports for 1898 were \$40,000,000 below those of 1897, \$88,000,000 below those of 1895, and \$100,000,000 below those of 1890. The total imports of articles of food and live animals for the calendar year 1898 were about \$186,000,000; articles in a crude condition for domestic industry, \$199,000,000; manufactured articles for use in the mechanic arts, \$59,000,000; finished manufactures for consumption, \$106,000,000; articles of voluntary use, luxuries, etc., \$84,000,000. The approximate values of the different categories of domestic exports for the calendar year were \$855,000,000 for agricultural products, \$25,000,000 for mining products, \$39,000,000 for forest products, \$5,500,000 for fishery products, \$306,000,000 for manufactures, and \$3,500,000 for miscellaneous products.

The falling off shown in the import tables was due mainly to a fall in values, but there was also an actual decline in quantities. The imports of sugar were nearly 1,000,000 pounds less than in 1897, with a decrease in the value imported of nearly \$10,000,000. Of this and many other articles there had been in the early part of 1897 abnormally large importations in anticipation of the new tariff. The importation of coffee in 1898 was not less in quantity than in 1897, but the value was 25 per cent. less, being \$54,000,000, compared with \$80,000,000 in 1895 and \$96,000,000 in 1896, when the quantities imported were not as great by 20 per cent., the price having fallen to less than half what it was in those years. Tea imports were about two thirds of those of the preceding year, with a loss in value of \$3,000,000. There was a falling off of imports of articles in a crude condition for domestic manufacture, attributable principally to the importation of only 159,776,482 pounds of foreign wools, the anticipatory importation of 356,849,482 pounds in 1896, two years' supply, not having been exhausted. In the class of articles wholly or partly manufactured there was a decline of \$22,000,000, compared with the preceding year.

The imports of gold coin and bullion for the calendar year were \$158,036,252 and the exports \$16,194,954, leaving a net importation of \$141,841,298, against a net exportation of \$255,808 for 1897, an importation of \$46,474,369 for 1896, and an exportation for the years anterior to that of \$70,571,010 in 1895, \$80,499,128 in 1894, \$6,709,151 in 1893, \$59,081,110 in 1892, \$34,116,471 in 1891, \$3,832,984 in 1890, and \$38,928,828 in 1889. The imports of silver for the year ending Dec. 31, 1898, were \$29,029,724 and the exports \$53,797,104, giving a net exportation of \$24,767,380, against \$25,578,990 in 1897, \$33,777,001 in 1896, and \$42,547,146 in 1895.

Shipping.—During the fiscal year there were built 952 merchant vessels, of 180,458 tons, compared with 991 vessels, of 232,233 tons, during 1897. The decrease in construction was mostly on the Great Lakes, where the new tonnage amounted to 54,084 tons, compared with 116,937 tons in 1897. On the Pacific coast, where the Alaskan Pacific and river trade called for new vessels, there was an increase from 7,495 to 49,780 tons in the tonnage built. The number of vessels engaged in foreign trade belonging to the United States on June 30, 1898, was 1,084, of 726,213 tons, of which 303 were steamers, of 290,241 tons, and 788 were sailing vessels, of 424,950 tons, and 43 were barges, of 11,022 tons. There were 20,090 vessels, of 3,959,702 tons,

engaged in the coasting trade, of which 6,400 were steamers, of 2,077,859 tons, 11,406 were sailing vessels, of 1,350,877 tons, 660 were canal boats, of 74,640 tons, and 1,624 were barges of 456,326 tons. The total number of registered vessels was 22,705, of which 6,712 were steamers; aggregate tonnage, 4,749,738 tons.

Reciprocity with France.—An agreement between France and the United States was concluded under the third clause of the Dingley tariff in Washington on May 28. The French duty on manufactured and prepared pork products was fixed at 50 francs per 100 kilos, and on lard and its components at 25 francs, while table fruit, canned meats, dried or pressed fruits, logs, paving blocks, staves, and hops pay the minimum French rates. The reduced rates made in the American tariff in favor of France are 5 per cent. *ad valorem* for argols, \$1.75 a gallon for brandy and spirits, 15 per cent. *ad valorem* for works of art, and 35 cents a gallon for still wines and vermouth.

Anglo-American Commission.—Sir Wilfrid Laurier, going to Washington in December, 1897, advocated a conference for the settlement of all outstanding differences between the United States and Canada. Great Britain declined to suspend pelagic sealing pending negotiations, which were therefore dropped for the time, and Congress prohibited importation of sealskins taken in North Pacific waters. Negotiations were, however, resumed in April, and on May 30, 1898, an agreement to create a commission charged with the task of considering all subjects in controversy and framing a treaty to adjust all differences was concluded by Sir Julian Pauncefote and Sir Louis Davis, Canadian Minister of Marine, representing Great Britain, and John W. Foster and John A. Kasson, acting on behalf of the United States. A protocol referring all Canadian questions to an international commission of ten members was signed at Washington on June 21. One more member was added on each side in order to have Newfoundland represented. The commissioners met at Quebec on Aug. 25. Charles W. Fairbanks, Nelson Dingley, George Gray, John A. Kasson, John W. Foster, and T. Jefferson Coolidge represented the United States; Lord John Charlton Herschell, Sir Wilfrid Laurier, Sir Richard Cartwright, Sir Louis Davies, and Sir James Winter, of Newfoundland, were the British representatives. On the retirement of Senator Gray in September, he having been appointed on the Peace Commission in Paris, the President nominated in his place Charles James Faulkner. The seal fisheries, the Alaska boundary, and commercial reciprocity were the most important of the questions discussed. Other matters to be investigated were the transshipment of fish in bond from Canadian waters in the North Atlantic, protection of fisheries on the Great Lakes, the alien labor laws, and the transportation of the troops of either country through the territory of the other. On Oct. 10 the commission adjourned, to meet again in Washington on Nov. 1. The American commissioners asked that the Canadian Government set aside the preferential tariff rates of 25 per cent. in favor of Great Britain as a condition of commercial reciprocity. The Americans declined to make lumber free, though the duty on lumber might be reduced, also that on live animals. On the fisheries question Canada offered enlarged rights to American fishermen in return for the free admission of Canadian fish into the United States. The Canadians accepted the proposal of the United States that pelagic sealing should be prohibited altogether, the United States compensating the sealers by purchasing their vessels and outfits at an appraised value. The amount awarded to Canadian claimants on account of seizures in Bering Sea,

about \$473,000, had been paid to the British ambassador on June 16. The joint statement of conclusions signed by the United States, British, and Canadian delegates to the sealing conference afforded a basis for the discussion of the Bering Sea question. It was found that a notable decrease had been suffered by the herd on the Pribylov Islands during 1897, though the diminution of the herd was yet far from a stage which involves or threatens the actual extermination of the species, so long as it is protected in its haunts on land. The ratio of the pelagic catch of one year to that of the following has fallen more rapidly than the ratio of the breeding herd of one year to the breeding herd of the next, and in this greater reduction of the pelagic catch, compared with the gradual decrease of the herd, there is a tendency toward equilibrium, or a stage at which the numbers of the breeding herd would neither increase nor decrease. In 1898 only 28 vessels were engaged in pelagic sealing, and the reported catch of 10,000 seals was the smallest for many seasons. The Pribylov catch was 18,000, and on the Russian islands, which are protected by a zone of 30 miles, the lessees secured only 7,000 skins. The Alaska boundary question it was proposed to refer to an impartial tribunal. Another course suggested was to abandon the Russian treaty of 1825 and arrange a new conventional boundary in connection with an agreement for a neutral port at the head of the Lynn Canal and bonding privileges for both nations on the main routes to the Yukon and the Alaskan interior. The Canadians argued that the Portland Channel mentioned in the treaty was not the present Portland Channel, but either Clarence Straits or Behm's Canal, and that the line should be drawn ten leagues from the outer edge of the islands, not from the windings of the shore, except where there are summits nearer the shore than ten leagues from the outer rim of the archipelago, in which case the line should be deflected to pass through these summits. This would give to Canada various inlets and landing places which under the American reading fall to the United States, among them the Lynn Canal and the Tahko Inlet. In December the international commission adjourned till after March 4, 1899.

The Cuban Question.—The Republican platform of 1896 expressed deep interest in "the heroic battle of the Cuban patriots against cruelty and oppression," and recommended that the Government of the United States "actively use its influence and good offices to restore peace and give independence to the island," the Government of Spain having lost control of Cuba, and being unable to protect the property or lives of resident American citizens or to comply with its treaty obligations. From the beginning of the Cuban insurrection the Spanish Government feared the intervention of the United States, but so long as President Cleveland had the direction of affairs it was reassured by disavowals of any intention to invade the sovereignty of Spain. President McKinley from the first avoided all such assurances, and Gen. Woodford, soon after his arrival at Madrid, in September, 1897, let it be known that he had an important mission to carry out. In his first interview with the Duke of Tetuan, then Minister of Foreign Affairs, while assuring him that the President earnestly desired peace and friendship between Spain and the United States, he read extracts from his instructions that raised a distinct issue. He presented, on Sept. 23, a note in which he gave at length the American view that it was visionary for Spain to hope that Cuba, which had been the scene of sanguinary conflicts for thirteen years out of twenty-nine, would ever again, even if subjugated by sheer exhaustion, be of value

to Spain; that a recognition of Cuban belligerency was demanded in the United States; that if Spain would not of her own volition put a stop to the destructive war, and make proposals of settlement honorable to herself and just to the Cuban colony and mankind, it only remained for the United States, deeply disturbed and injured by the existence of a devastating internal conflict at its doors, to wait a reasonable time before alleging and acting upon the rights which they too possessed; that the President felt it his duty to help bring about results of peace and prosperity which should be in conformity alike with the feelings of the American people and the inherent rights of civilized man, and be of advantage both to Cuba and to Spain. All that was asked was that some lasting settlement be found that Spain could accept with self-respect, and for this the Government offered its kindly offices, hoping that during the coming month Spain might either be able to formulate some proposal under which this tender of good offices might become effective, or might give satisfactory assurances that peace in Cuba would by her own efforts be promptly assured.

The prospect of American intervention brought the Liberals into power in Spain, and caused the recall of Gen. Weyler, but without any thorough change in the military methods or any material improvement in the conditions in Cuba. Señor Gullon, the new Spanish Minister of Foreign Affairs, in replying to the American note, on Oct. 23, denied that indirect injuries inflicted on the United States by the prolonged disturbances in Cuba justified interference or intrusions, and gave an outline of the autonomous constitution for Cuba, which, he said, in combination with energetic military action, would speedily lead to pacification and prosperity and the complete re-establishment of the indestructible Spanish sovereignty. He proposed that "Spain should continue her military efforts, and at the same time announce such concessions as seemed to be opportune and adequate, while the United States should exercise within her borders the energy and vigilance necessary to prevent absolutely the furnishing of the resources with which, as from an inexhaustible arsenal, the Cuban insurrection has been supplying itself from the beginning." After alleging various infractions of the neutrality laws, he suggested their more stringent application as the most efficient means of friendly co-operation with Spain, and asserted that the situation in Cuba was immensely changed for the better, and that with the establishment of autonomous institutions the pretext for popular sympathies with the Cubans was taken away.

In the answer to this note, presented on Dec. 20, Gen. Woodford said: "The President understands that the reversal of all that had been done is no sudden growth, to spring up in a single night, and that the fair structure of a just and permanent and prosperous peace for Cuba is to be raised with thoughtful care and untiring devotion if Spain is to succeed in the accomplishment of this tremendous task upon which she has entered. He comprehends that the plan, however broadly outlined, must be wrought out in progressive detail, and that upon assured foundations, upon the rock of equity and not upon the shifting sands of selfish interest, must be builded, stone by stone, the enduring fabric of regenerated Cuba." Meanwhile an attitude of benevolent expectancy was promised on the part of the United States "until the near future should show whether the indispensable conditions of a righteous peace" were realizable from the autonomous system which Spain had proclaimed in Cuba, while rejecting the good offices that had been tendered by the President. The Spanish arraignment

of the United States was refuted by a description of the onerous and expensive measures adopted for the enforcement of the neutrality laws, amply sufficing to cover all international obligations. While regretting that the Spanish Government had not accepted the offer of good offices, but had recommended joint action of the two countries, each in its domestic sphere, Gen. Woodford promised that any progress toward a contented and recuperative peace attained through just and humane measures could not but be benevolently viewed, and that so long as the event invited and justified such a course the United States would persevere in the path of kindly expectancy.

Proposed Cuban Autonomy.—The measure of self-government proclaimed by the Spanish Crown on Nov. 25, 1897, was rejected in advance by the insurgents, while the Spanish Cubans who upheld Weyler's policy condemned any concessions. The remnant of the Autonomist party accepted it as an earnest of a better constitution to be obtained in the future, and applied themselves to the task of putting the autonomous system in operation, and the multitude of *pacíficos* who had taken no willing part in the hostilities on either side were inclined to accept any solution that promised to end the period of havoc and suffering and restore peace to the island. The autonomy act fell far short of the promises and professions of the Spanish Government. The Autonomous Legislature could enact no law without the approval of the Governor General. Even the fiscal independence that was promised was rendered nugatory by a clause providing that the Madrid Government should fix the amount to be paid by the colonial treasury for the maintenance of the rights of the Spanish Crown, and that the Cuban Chamber could not discuss the estimates for the colonial budget until this amount was voted. Another clause provided for perpetual preferential duties in favor of Spanish trade and manufactures.

The insurgents rejected the compromise of autonomy from the time the project was first mooted. The Minister of the Colonies repeatedly stated that autonomy was not given to the rebels, but to peaceful and loyal Cubans, so that the protest of the Spanish authorities that the failure of autonomy was due to the encouragement given to the rebels by the threatening attitude of the United States toward Spain was not well founded. The opposition shown to reforms by the military element had been a serious obstacle to peace. Conciliatory measures suggested by the leaders of the Autonomist party were not tried because of the opposition of the army. When it was proposed to disband the local Spanish volunteer regiments and substitute a force of Cuban militia drawn from the ranks of the insurgents, the volunteers obtained a promise from Gen. Blanco, which was afterward confirmed by the Madrid authorities, that in no case would their organization be disturbed. The proposal to treat with the Government of the Republic of Cuba, and endeavor to secure terms on which the rebels would accept the new constitution and lay down their arms, fell through because of the determined resistance of high military authorities both in Spain and in Cuba.

The autonomous system was formally inaugurated in Cuba in the beginning of January, 1898. The Autonomous Cuban ministry was composed of José María Galvez, Antonio Galvez, Rafael Montoro, Francisco Zayas, Señor Govin, Señor Giberga, and Señor Ambard. No sooner had it been constituted than serious differences arose between the members, caused by the sympathies of some toward the cause of Cuban liberty and the tendency of the others toward the restoration of the old colonial system.

Ministers Giberga and Ambard were accused of secretly treating with the Separatists and favoring the independence of Cuba. Antonio Govin, the Cuban Minister of Justice and Interior, was denounced by the Spaniards as a traitor. There were some hopeful signs in the beginning that the proposed autonomy might result in a peaceful compromise. Many refugees returned from the United States, and some insurgents of more or less prominence submitted to the authorities in accordance with Marshal Blanco's proclamation of amnesty. The first disturbing influence proceeded from the Spaniards in Cuba, who in the middle of January made riotous demonstrations against autonomy and threatened Americans in Havana. This impelled Consul-General Lee to request that an American war ship be sent to protect United States citizens.

The Military Situation in Cuba.—The proffer of more satisfactory and complete autonomy would not have induced the Cubans to lay down their arms, even if they had faith in the permanence of the Spanish concessions. The bitterness engendered by Gen. Weyler's policy divided the partisans of Spain from the Cuban patriots by an impassable gulf, and the rebels, exhausted and suffering though they were, believed that their relative position was stronger than ever. Though ill clad, often starving, and badly armed, they had made so stiff a resistance to the largest army that Spain could muster for transmarine service that the military and financial resources of the Spanish Government probably could not outlast one more campaign. The number of Spanish soldiers who had died from wounds or disease from the beginning of the war, in February, 1895, to January, 1898, was officially stated to be 52,000, while 47,000 had been sent back to Spain as invalids, and 42,000 were in hospital and unfit for duty. This reduced the effective strength of the active army to about 70,000 men, besides whom there were about 16,000 irregular cavalry under arms. In case of war the Spaniards could rely on about 150,000 men trained in the regular army then in Cuba, about 50,000 volunteers who had received some military training, and an indefinite number of irregular troops. The losses of the rebels from the number of men killed and disabled, and from sickness and lack of medical attendance, had been equally heavy. Still, they were able to maintain their position indefinitely without seeking to engage the Spanish forces; for, although they were better provided with arms and ammunition than they ever had been before, they had ceased their offensive tactics. Food was very scarce, especially in the country desolated by both armies and depopulated by the *bando* of reconcentration, embracing the provinces of Havana, Matanzas, Santa Clara, and Pinar del Rio, but the mobile insurgent groups could find everywhere enough to live upon. In January and February skirmishing went on as usual all over the country. The troops assailed the rebel positions in Pinar del Rio without inflicting any serious losses. In Puerto Principe the insurgents were well provided with necessities and were not disturbed by the troops. In Santiago de Cuba, the section known as Cuba Libre, the rebels lived in comparative security, raising crops and tending their cattle without interference, and preventing the sugar planters from grinding cane. Gen. Gomez and his forces were in Santa Clara in a position that the Spaniards did not venture to attack. An officer of the Cuban volunteers who went to the rebel camp to treat for peace in behalf of the Autonomous Government was tried and executed under the law handed down from the old war of independence, which ordained that any emissary of the Spaniards offering any terms except Cuban independence should be shot.

The de Lôme Incident.—The Sagasta Government, in response to the President's protest against Weyler and his policy, and his notice that the war must cease and proposals for a settlement be made within a reasonable time, recalled Gen. Weyler and sent out Gen. Blanco to introduce the system of autonomy. Before the end of 1897 it was seen that autonomy was foredoomed to failure. It was obnoxious to the Spaniards of Cuba, who made riotous demonstrations in Havana in favor of Weyler. The reconcentration *bando* was revoked by Capt.-Gen. Blanco, but the starving *reconcentrados* remained within the Spanish lines, as their homes, stock, and implements had been destroyed, and those who were allowed to return to the open country were killed by Spanish patrols as rebels; for, in spite of Gen. Blanco's orders, the army authorities were unwilling to forego the military advantages of Weyler's policy.

In January, 1898, a concentration of United States naval forces and the accumulation of war material, as well as expressions of impatience in the American press and in Congress, showed that the Cuban question was reaching an acute stage. At this time a private letter written by the Spanish ambassador, Dupuy de Lôme, to a Madrid editor who was visiting Havana, Señor Canalejas, fell into the hands of Cuban revolutionists, who gave it to the officials of the State Department and published the contents in the newspapers. On account of this letter, in which President McKinley was characterized as a vacillating and time-serving politician, Gen. Woodford was instructed on Feb. 9 to request the Minister of State at Madrid to recall Señor de Lôme. The ambassador had anticipated such action by cabling his resignation, which was accepted before the request for his recall arrived. Señor Polo y Bernabe was appointed his successor.

The Cubans.—As a result of Gen. Weyler's policy of extermination, fully 250,000 Cuban people perished from starvation and disease. Of the non-combatant population remaining, about 1,100,000 were Cubans and 150,000 Spaniards. The Republic of Cuba had for its President Gen. Bartolome Masso, and for Vice-President Domingo Mendez Capote, who was also Secretary of War. Andreas Moreno was Secretary of Foreign Affairs, Ernesto Fontes Secretary of Finance, and Manuel Silva Secretary of the Interior. Gen. T. Estrada Palma was the chief representative of the republic in the United States and the head of the Cuban junta in New York. Each of the six provinces had a Governor and a Lieutenant Governor, and officers at the head of the numerous prefectures. The military organization, however, predominated over the civil administration and was more highly developed. The commander-in-chief of the army of liberation was Gen. Maximo Gomez, who was established in Santa Clara province, in the center of the island. The total strength of the army was reported to be 28,000 men, comprising 25,000 infantry, armed with 3,000 Mausers and more than 21,000 Remingtons; 2,000 cavalry, armed with Remington carbines; and several batteries of artillery, having 10 guns, mostly Hotchkiss 12-pounders and 2-pounders, besides 3 dynamite guns which had spread death and terror among the Spaniards for two years. The Cuban army was divided into 6 army corps. The first, second, and third corps, under the command of Major-Gen. Calixto Garcia, operated in the provinces of Puerto Principe and Santiago de Cuba, at the eastern end of the island. His command numbered 18,000 men, comprising 3 divisions under Gen. Pedro Perez, Gen. Jesus Rabi, and Gen. Armondo Menocal, each division consisting of 2 brigades. Major-Gen. Francisco Carrillo was in command of the fourth corps, consisting of one division,

with Gen. José Rodriguez as division commander and Brigadiers José Miguel Gomez, José Gonzales, and Hijinio Esquerro commanding the separate brigades. This corps operated in Santa Clara, while the fifth and sixth corps, under Major-Gen. José Maria Rodriguez, operated in Pinar del Rio, Havana, and Matanzas provinces, at the western end of the island. Of the fifth corps one division was commanded by Gen. Pedro Betancourt and one by Gen. Alexandro Rodriguez; of the sixth corps Gen. Pedro Vias commanded one and Gen. Juan Lorente the other.

Destruction of the "Maine."—In consequence of hostile demonstrations against Americans the consular representatives in Cuba urged the Government to send war vessels to Cuban waters. On Jan. 24, after a conference with the Spanish minister, in which the renewal of visits of American war ships to Spanish waters was discussed and accepted, the authorities in Madrid and Havana were advised of the purpose of the American Government to resume friendly naval visits to Cuban ports. The Spanish Government expressed appreciation of the friendly character of the intended visit of the cruiser "Maine" to Havana, and announced the intention of returning the courtesy by sending Spanish ships to the principal ports of the United States. Accordingly, after the Havana riots the United States cruiser "Maine" was sent on a friendly visit to Havana, to remain there in readiness to protect American lives and property in the event of dangerous disturbances. The "Maine" was anchored in a berth assigned by the naval authorities. It was the least-used buoy in the harbor, one that had not previously been occupied by a war vessel for many years. The Spaniards of Havana resented the presence of the American man-of-war, and dark threats were uttered against the ship and her crew. The "Maine" lay there at anchor three weeks. At nine o'clock and forty minutes in the evening of Feb. 15, while the men were asleep, a double explosion occurred forward, directly under their quarters, which rent the ship in two, causing her to sink almost instantly. Out of a complement of 360 men 2 officers and 264 men were drowned or killed, and 60 were taken out wounded. The first explosion lifted the forward part of the ship perceptibly. After a brief interval a second one occurred, more open and prolonged. The forward part of the vessel was completely demolished, whereas the after part was practically intact. The vessel was lying in about 6 fathoms of water. The discipline on board was excellent, and the temperature of the forward magazines had been reported normal at 8 o'clock, and the condition of the coal bunkers, storage compartments, and boilers precluded the hypothesis of spontaneous combustion or an internal explosion from any cause. Capt. Sigsbee, in his telegram to the Secretary of the Navy, said that public opinion should be suspended till further report. Marshal Blanco telegraphed to his Government that the explosion was undoubtedly due to an accident, probably caused by the bursting of the boiler of a dynamo engine. The authorities in Havana rendered whatever assistance they could in rescuing the survivors and caring for the wounded. The Madrid Government expressed regret at the catastrophe, especially in view of the fact that it occurred in Spanish waters. The Spanish cruiser "Vizcaya" was about to be anchored in New York harbor at the time as a counter demonstration to the dispatch of the "Maine" to Havana, and when she was anchored a vigilant patrol, though deprecated by Capt. Eulate, was kept to prevent any outrage being attempted in consequence of the excited state of public feeling in the United States.

The Spanish Government proposed a joint in-

vestigation into the cause of the "Maine" explosion; but the Government at Washington declined the proposition, being determined to investigate independently the destruction of the battle ship. The naval board of inquiry consisted of Capt. William T. Sampson, Capt. French E. Chadwick, Lieut.-Commander William P. Potter, and Lieut.-Commander Adolph Marix. When these officers examined the wreck they found the bottom plates bent upward, forming a great arch, and a portion of the forward keel blown through the body of the ship and protruding above the deck 36 feet in vertical distance from its original position. Under-

taken to imply that the report required such confirmation.

The findings of the American court of inquiry on the "Maine" explosion were communicated to the Spanish Government. In his message to Congress thereon the President said he did not permit himself to doubt that the sense of justice of the Spanish nation would dictate the course of action suggested by honor and by the friendly relations of the two governments. On March 26 Señor Gullon assured Minister Woodford that Spain would do all that the highest honor and justice required in the matter of the "Maine." On March



Copyright, 1898, by J. C. Hemment.

THE "MAINE" PASSING MORRO CASTLE, HAVANA, AS SHE ENTERED THE GATE OF DKATE.

neath the arch was a hole in the mud 15 feet in diameter and 7 feet deep. The outside bottom plating was doubled back upon itself. The conclusions of the court of inquiry were that the loss of the "Maine" was not in any respect due to fault or negligence on the part of any of the officers or crew; that the ship was destroyed by the explosion of a submarine mine underneath the port side, which caused the partial explosion of two of the forward magazines; and that no evidence had been obtainable fixing the responsibility upon any person or persons. The Spanish Government subsequently made an independent investigation, which resulted in conclusions attributing the catastrophe to an internal explosion in the forward storerooms, these containing other explosives than powder and shells of various kinds, and being surrounded on the starboard side by coal bunkers, which explosion those who witnessed it agreed in saying was due to a purely accidental cause. Respect for the extrajurisdictionality of a foreign man-of-war prevented the commission from ascertaining by inspection the origin of the disaster, but when it should become possible to float the vessel an examination of the hull, both outside and inside, would justify the correctness of the report, although this must not be

31 the Spanish Government proposed to submit to arbitration all differences that might arise in this matter, and in a note presented by the Spanish minister on April 10 Spain proposed, as to the question of fact springing from the diversity of views between the report of the American and Spanish boards, that the fact be ascertained by an impartial investigation by experts, whose decision Spain accepted in advance. To this no reply was given.

War Preparations.—At the time when the "Maine" was sent to Havana an American squadron assembled at Key West and the Tortugas Islands. The United States Government had already abandoned the attitude of benevolent expectancy in regard to the autonomy experiment, since it had proved a failure from the outset, and since the severities of the military policy, though ostensibly revoked, were in fact continued. Leave was obtained to distribute food among suffering Americans and the distressed *reconcentrados*, and a cruiser and a coast-defense vessel were detailed to convey the supplies to Cuba. On March 6 Señor Gullon informed Gen. Woodford that the Spanish Government desired the substitution of merchant vessels for the war ships, and also the recall of Gen. Lec-

United States consul-general at Havana. The Government at Washington declined to recall Gen. Lee in existing circumstances or to countermand the employment of naval vessels which were not fighting ships, whereupon Spain withdrew her suggestion. Meanwhile Spain was getting her navy in fighting condition as rapidly as possible, hurrying the work of construction, armament, and repair in the shipyards, and buying ships abroad. Agents of the United States navy were also busy in Europe negotiating for the purchase of any good modern cruisers that could be bought, while ordnance factories were turning out guns and disappearing carriages with all dispatch to mount on the unfinished war vessels and the shore batteries, and the work in hand was rushed in the Government arsenals. The bill authorizing the creation of two new regiments of artillery to man the harbor forts was passed on March 7, and \$50,000,000 was placed at the disposition of the President for national defense. The squadron concentrated at Key West drew from the Spanish Government a representation that the warlike preparations were likely to have a serious influence in encouraging the Cuban revolutionists just when the autonomy plan was to be put to the test in the Cuban elections, and thus endanger the success of the reforms that Spain was trying to inaugurate. The Spanish minister protested that war by the United States against Spain in such circumstances would be unjustifiable before the world, and a crime against humanity and civilization. The Secretary of State retorted by inquiring about the dispatch of a Spanish torpedo flotilla to Havana. The President asked for a bill providing for the contingent increase of the army to 100,000 men. The speeches of Senator Proctor and other members of Congress who had lately visited Cuba, asserting that 425,000 Cubans had died of starvation, and 200,000 more were in a starving condition, were followed on March 28 by the report of the naval commission on the "Maine" disaster.

The election of Cuban Deputies in the Spanish Cortes took place on March 27. It was a mere formality, 20 official candidates being selected to represent the majority and 10 as representatives of the minority the whole list submitted to the Governor General, and on receiving his approval declared elected. The military and other expenses of the Cuban Government went on at the rate of \$10,000,000 a month.

The Spanish soldiers of all ranks were eager for a war with the United States, hoping to redeem in regular operations the reputation of Spanish arms, which had suffered in the campaigns against the Cubans. Preparations for defense were pushed forward on the coast line in the vicinity of Havana, where sandbag protections were thrown up in front of the batteries and additional earthworks were constructed. The re-enforcements sent from Spain numbered 16,000 men, most of them raw recruits, a large proportion boys not seventeen years old. The regular infantry was made up entirely of Spanish conscripts who had no interest in Cuba, but were controlled by an excellent spirit of military discipline and subordination. The regular cavalry were soldiers of Spanish birth, mounted on ill-fed Texas ponies, and only capable of the duties of mounted infantry. The civil guard was a well-behaved body composed of the pick of the Spaniards in Cuba detailed for service in cities. The guerrilla cavalry was a force regularly recruited from among the Spanish residents and native Cubans, who fought the insurgents in their own fashion, came oftener in conflict with them than any of the other Spanish forces, and were usually killed without quarter when captured. The volunteers were organized and greatly fa-

vored by Gen. Weyler, being composed of the most ardent of the Spaniards in Cuba, who exercised a strong political influence, but had not often been called upon to prove their fighting abilities. The *mobilizados* were an irregular force of infantry, serving usually without pay, and only called out when occasion required to do guard duty in the blockhouse forts around each fortified town. The guard of public order was another irregular force summoned in emergencies for guard duty in the cities.

The American Ultimatum.—March 23, after the President had received the report of the court of inquiry on the destruction of the "Maine," which he withheld from Congress until he had endeavored to secure some satisfactory agreement with Spain that would avert war, Gen. Woodford presented a formal statement to the Spanish Minister of Foreign Affairs, warning him that, apart from the destruction of the vessel, unless an agreement assuring immediate and honorable peace in Cuba was reached within a very few days, the President would feel himself constrained to submit to the decision of Congress the whole question of the relations between the United States and Spain, including the "Maine" incident. The recall of Gen. Weyler and the creation of autonomous institutions, with the evident desire of the Spanish Government to effect a pacification, had awakened in the United States Government the hope that peace would be firmly and permanently established, but this hope had been disappointed. The winter was at an end, and peace was not yet in sight. The system of devastating the island so as to cut off all supplies from their opponents was still practiced both by the Spanish troops and by the insurgents. All the sufferings and horrors of civil war still continued, and the moment had arrived when, in the interests of humanity and for the sake of their own commercial, financial, and sanitary needs, the United States must demand that a satisfactory agreement be reached that would insure immediate peace in Cuba. The population of Cuba, decimated by famine, destitution, and disease, had sunk from 1,600,000 to 1,200,000, and the sanitary conditions were lamentable, so that the adjacent portions of the United States were threatened with an epidemic. The lucrative commerce with the United States had been interrupted, and many millions of American capital had been lost or jeopardized; but above all these considerations the controlling questions of humanity and civilization were to be considered. The Spanish minister replied on March 25, urging that the "Maine" report should not be sent to Congress, but should be made the subject of diplomatic adjustment between the two governments, and that the means of securing the pacification of Cuba should be left to the Insular Parliament, which was to meet on May 4. In reply, Gen. Woodford inquired whether the Spanish Government was willing to grant an immediate armistice. A few days later he asked for a conference with the President of the Council, the Minister of Foreign Affairs and the Ministry of the Colonies to be present also. At this meeting, which took place on March 29, he communicated a message from the President, premised with the declaration that the United States did not want Cuba, but did wish immediate peace in Cuba, requesting an immediate armistice lasting until Oct. 1, negotiations to be carried on in the meantime with a view to effecting peace between Spain and the insurgents through the kindly offices of the United States; and further requesting the immediate revocation of the reconcentration order so as to permit the people to return to their farms, and the needy to be relieved with provisions and supplies from the United States with the co-operation

of the Spanish authorities, so as to afford full relief. To this communication the Spanish Government replied, on March 31, that it was willing to submit to arbitration any differences of opinion that might arise as to the "Maine" disaster; that, being more interested than the Government of the United States in the establishment of an honorable and permanent peace in Cuba, it intended confiding this mission to the Insular Parliament, whose co-operation was absolutely necessary, it being understood, however, that the powers specially reserved by the constitution to the central Government were not to be in any way impaired or diminished; that there would be no objection to a suspension of hostilities meanwhile, provided the insurgents asked for one, to last during the pleasure of the commander-in-chief of the Spanish forces; that Gen. Blanco had already revoked the order of reconcentration, although the revocation could not have its full effect until military operations were concluded, and 3,000,000 pesetas had been placed at his disposal to enable the peasants to resume their usual vocations; that the Spanish authorities would nevertheless accept supplies that might be sent from the United States for necessitous Cubans under conditions to be agreed upon by the Secretary of State and the Spanish minister at Washington. Marshal Blanco, when he issued his decree rescinding the reconcentration *bando* for the western provinces, reported that these provinces were so far pacified that the *reconcentrados* could safely return to their farms. He announced that he would protect them in their agricultural operations, and would furnish them with tools and seed, and with food from public kitchens till the crops ripened, and also would give employment to the able-bodied on public works.

Offers of Mediation.—The Spanish reply of March 31 was regarded as final and as entirely unsatisfactory, and the President prepared a message to Congress covering the whole Cuban question. The Spanish Cabinet sent to the great powers a memorandum denying that there were torpedoes on the spot where the "Maine" was blown up, and asking for arbitration on the question, and in regard to the *reconcentrados* explaining that the country people had been required to inhabit the towns because they were all rebel spies; but that, after sickness had broken out among them, they had been permitted to return to their homes before the question was brought up by the United States. In reference to the demands of the President that the war must be brought to an end, it was declared that as soon as the rebels knew they would not be supported and provisioned from the United States they would capitulate.

Before the President's message was sent to Congress the Pope made an effort to avert war. With this object he took steps in a semi-official way to express to the governments in Madrid and Washington his ardent desire that peace should not be disturbed. Cardinal Rampolla, the Papal Secretary of State, telegraphed to the Spanish Government, asking what concessions it was prepared to make, and the Papal Nuncio urged an immediate suspension of hostilities between the Spanish troops and the insurgents. The Pope sounded the President by means of informal inquiries through Archbishop Ireland, and sought to induce the American Government to get the insurgents to accept an armistice. The Austrian Government encouraged the attempts at mediation, and received the backing of Russia, France, and Germany. To the first communication of the nuncio the Spanish Cabinet replied that it had nothing to offer beyond its former declarations. Urged by the representatives of the great powers, the Spanish ministers finally consented to accept the mediation of the Pope, giving

out that both governments had agreed to this proposition, which was represented as originating in overtures of President McKinley. The United States Government explained that the President had made no such proposal to the Vatican. In fact, the President rejected the offer of mediation, and through Minister Woodford urged the immediate granting of an armistice, which was offered by the Autonomist Government with the consent of the Madrid authorities.

The Cuban Autonomist Government sent an appeal to President McKinley to respect the will of the majority of the people of Cuba, who were represented as being in favor of home rule under Spanish sovereignty. The representatives of the six great powers called upon the President with an address appealing to his feelings of humanity and moderation, and expressing the hope that further negotiations would lead to an agreement securing the maintenance of peace and affording all necessary guarantees for the re-establishment of order in Cuba. The President replied that the Government of the United States recognized the good will which prompted the friendly communication, and shared in the hope for peace and the re-establishment of order in the island, "so terminating the chronic condition of disturbance there which so deeply injures the interests and menaces the tranquillity of the American nation by the character and consequences of the struggle thus kept up at our doors, besides shocking its sense of humanity." Expressing the appreciation of the Government of the United States for the humane and disinterested character of the communication from the powers, he said it was confident that equal appreciation would be shown for its own earnest and unselfish endeavors to fulfill its duty to humanity by ending a situation the indefinite prolongation of which had become insufferable. A joint note presented to Señor Gullon by the ambassadors of France, Germany, Italy, and Russia elicited the reply that Spain had reached the limit of international politics in the direction of conceding the demands and allowing the pretensions of the United States. On April 10 the Spanish Government formally proclaimed a suspension of hostilities, in compliance with the request of the Pope and of the ambassadors of the six powers, "in order to prepare for and facilitate the establishment of peace in the island." It was stated in Gen. Blanco's proclamation, which was qualified by the provision that the details of its execution and the duration of the truce should be determined by instructions to the generals commanding. The United States Government was notified by Minister Polo y Bernabe of the granting of the armistice without conditions, and stated that Spain had granted liberal institutions to Cuba to be developed by the coming Cuban Parliament. The Emperor of Austria congratulated the Pope on having secured an armistice. The insurgent Government through Maximo Gomez let it be known that, unless Spain should agree to evacuate Cuba, the Cubans would not accept an armistice and throw away their advantages at the beginning of the rainy season, when a cessation of fighting would be welcome to the Spanish troops. President McKinley withheld his message until Gen. Fitzhugh Lee and the other consular officers had left for the United States, turning over the archives and the charge of American interests to the British consuls.

The President was slow in preparing his message while a chance remained for a diplomatic settlement, and delayed sending it after it was ready, on the ground that the consuls and Americans who had not left Cuba ought first to be brought away. Meanwhile, both countries were mobilizing their

forces rapidly. The Spanish cruisers "Vizcaya" and "Almirante Oquendo" left Havana on April 1 for the purpose of meeting the torpedo fleet that was about to be dispatched from the Canary Islands, and they afterward remained at Puerto Rico, while a squadron consisting of the armored cruisers "Emperador Carlos V" and "Infanta Maria Teresa," the protected cruiser "Alfonso XIII," the torpedo gunboat "Cristobal Colon," and the flotilla of destroyers and torpedo boats assembled at the Cape Verd Islands.

In the United States troops were hurried to the Atlantic seaboard from distant outposts. On April 14 the army order was issued directing 8 regiments of the regular infantry to go to New Orleans, 7 to Mobile, and 7 to Tampa, while 6 regiments of cavalry and all the light batteries and artillery regiments, except the Sixth and Seventh, recently organized to man the new guns mounted in the coast fortifications at New York and other points, were ordered to Chickamauga. The coast fortifications were strengthened and provided with their still lacking guns as rapidly as these could be finished and mounted. Submarine mines were planted in New York and other harbors. Nine new war ships were added to the navy. The fleets at Key West and Hampton Roads were stripped for war.

The Spaniards, though much behindhand in their naval preparations, pushed forward their coast fortifications at Havana, San Juan, and other West-Indian ports, mounting mortars and heavy guns with feverish haste. The volunteers and military were put through daily drills. Havana already experienced the hardships of a siege, for commerce was stopped and rice and other common articles of food rose to double the ordinary prices. The coast line at Havana was heavily armed from Cojimar to Morro Castle, and westward to the Chossera river, with 16-inch Ordoñez and many 12-inch and 10-inch guns and lighter pieces at all available points. The garrison was increased to 60,000 regulars and 40,000 volunteers.

Marshal Blanco called on the volunteer officers to complete their organizations and bring their men up to the highest state of efficiency. These volunteers, of whom 45,000 were then on the rolls, and who in a short time numbered more than 100,000, were recruited exclusively from the Spanish residents of Cuba, who obtained exemption from all other military service by remaining ten years in a volunteer regiment. The armistice was not observed by the Spanish troops any more than by the rebels, who refused to recognize it or take advantage of it in any form. The troops continued to act against the insurgents in all the provinces, and in Pinar del Rio some spirited engagements took place.

The President's Message.—On April 11 the President sent his message to Congress. The conditions of the Cuban struggle and its relation to the state of the Union were thus reviewed:

"The present revolution is but the successor of similar insurrections which have occurred in Cuba against the dominion of Spain, extending over a period of nearly half a century, each of which, during its progress, has subjected the United States to great effort and expense in enforcing its neutrality laws, caused enormous losses to American trade and commerce, caused irritation, annoyance, and disturbance among our citizens, and by the exercise of cruel, barbarous, and uncivilized practices of warfare shocked the sensibilities and offended the humane sympathies of our people. Since the present revolution began in February, 1895, this country has seen the fertile domain at our threshold ravaged by fire and sword in the course of a struggle unequalled in the history of the island, and rarely

paralleled as to the number of combatants and the bitterness of the contest by revolution of modern times where a dependent people, striving to be free, have been opposed by the power of the sovereign state. Our people have beheld a once prosperous community reduced to comparative want, its lucrative commerce virtually paralyzed, its exceptional productiveness diminished, its fields laid waste, its mills in ruins, and its people perishing by tens of thousands from hunger and destitution. We have found ourselves constrained, in the observance of that strict neutrality which our laws enjoin, and which the law of nations commands, to police our own waters and watch our own seaports in prevention of any unlawful act in aid of the Cubans. Our trade suffered, the capital invested by our citizens in Cuba has been largely lost, and the temper and forbearance of our people have been so sorely tried as to beget a perilous unrest among our own citizens, which has inevitably found its expression from time to time in the national Legislature, so that issues wholly external to our own body politic engross attention and stand in the way of that close devotion to domestic advancement that becomes a self-contained commonwealth whose primal maxim has been the avoidance of foreign entanglements. All this must needs awaken, and has indeed aroused, the utmost concern on the part of this Government, as well during my predecessor's term as in my own. In April, 1896, the evils from which our country suffered through the Cuban war became so onerous that my predecessor made an effort to bring about a peace through the mediation of this Government in any way that might tend to an honorable adjustment of the contest between Spain and her revolted colony on the basis of some effective scheme of self-government for Cuba under the flag and sovereignty of Spain. It failed through the refusal of the Spanish Government then in power to consider any form of mediation or indeed any plan of settlement which did not begin with the actual submission of the insurgents to the mother country, and then only on such terms as Spain herself might see fit to grant. The war continued unabated. The resistance of the insurgents was in no wise diminished. The efforts of Spain were increased both by the dispatch of fresh levies to Cuba and by the addition to the horrors of the strife of a new and inhuman phase, happily unprecedented in the modern history of civilized Christian peoples. The policy of devastation and concentration inaugurated by the Captain General's *bando* of Oct. 21, 1896, in the province of Pinar del Rio was thence extended to embrace all of the island to which the power of the Spanish arms was able to reach by occupation or by military operations. The peasantry, including all dwelling in the open agricultural interior, were driven into the garrison towns or isolated places held by the troops. The raising and movement of provisions of all kinds were interdicted. The fields were laid waste, dwellings unroofed and fired, mills destroyed, and in short everything that could desolate the land and render it unfit for human habitation or support was commanded by one or the other of the contending parties and executed by all the powers at their disposal.

"By the time the present Administration took office, a year ago, reconcentration—so called—had been made effective over the better part of the four central and western provinces, Santa Clara, Matanzas, Havana, and Pinar del Rio. The agricultural population, to the estimated number of 300,000 or more, was herded within the towns and their immediate vicinage, deprived of the means of support, rendered destitute of shelter, left poorly clad, and exposed to the most unsanitary conditions. As the scarcity of food increased with the devastation of the depopu-

lated areas of production, destitution and want became misery and starvation. Month by month the death rate increased in an alarming ratio. By March, 1897, according to conservative estimates from official Spanish sources, the mortality among the *reconcentrados* from starvation and the diseases thereto incident exceeded 50 per cent. of their total number. No practical relief was accorded to the destitute. The overburdened towns, already suffering from the general dearth, could give no aid. So-called 'zones of cultivation,' established within the immediate area of effective military control, about the cities and fortified camps, proved illusory as a remedy for the suffering. The unfortunates, being for the most part women and children, with aged and helpless men, enfeebled by disease and hunger, could not have tilled the soil without tools, seed, or shelter for their own support and for the supply of the cities. Reconcentration, adopted avowedly as a war measure in order to cut off the resources of the insurgents, worked its predestined result. As I said in my message of last December it was not civilized warfare; it was extermination. The only peace it could beget was that of the wilderness and the grave. Meanwhile the military situation in the island had undergone a noticeable change. The extraordinary activity that characterized the second year of war when the insurgents invaded even the hitherto unharmed fields of Pinar del Rio, and carried havoc and destruction up to the walls of the city of Havana itself, had relapsed into a dogged struggle in the central and eastern provinces. The Spanish arms regained a measure of control in Pinar del Rio and parts of Havana, but under the existing condition of the rural country without immediate improvement of their productive situation. Even thus partially restricted the revolutionists held their own, and their conquest and submission put forward by Spain as the essential and sole basis of peace seemed as far distant as at the outset. In this state of affairs my Administration found itself confronted with the grave problem of its duty. My message of last December reviewed the situation and narrated the steps taken with a view of relieving its acuteness and opening the way to some form of honorable settlement. The assassination of the Prime Minister, Canovas, led to a change of Government in Spain. The former Administration, pledged to subjugation without concession, gave place to that of a more liberal party, committed long in advance to a policy of reform involving the wider principles of home rule for Cuba and Puerto Rico. The overtures of the Government made through its new envoy Gen. Woodford, and looking to an immediate and effective amelioration of the condition of the island, although not accepted, to the extent of admitted mediation in any shape, were met by assurances that home rule in an advanced phase would be forthwith offered to Cuba without waiting for the war to end, and that more humane efforts should thenceforth prevail in the conduct of hostilities. Coincidentally with these declarations the new Government of Spain continued and completed the policy already begun by its predecessor, of testifying friendly regard for this nation by releasing American citizens held under one charge or another connected with the insurrection, so that by the end of November not a single person entitled in any way to our national protection remained in a Spanish prison.

"While these negotiations were progressing the increasing destitution of the unfortunate *reconcentrados* and the alarming mortality among them claimed earnest attention. The success which had attended the limited measure of relief extended to the suffering American citizens among them by the judicious expenditure through the consular agencies

of the money appropriated expressly for their succor by the joint resolution approved May 4, 1897, prompted the humane extension of a similar scheme of aid to the great body of sufferers. A suggestion to this end was acquiesced in by the Spanish authorities. On Dec. 24 last I caused to be issued an appeal to the American people, inviting contributions in money or in kind for the succor of the starving sufferers in Cuba, following this on Jan. 8 by a similar public announcement of the formation of a Central Cuban Relief Committee, with headquarters in New York city, composed of three members representing the American National Red Cross and the religious and business elements of the community.

"The efforts of the committee have been untiring and have accomplished much. Arrangements for free transportation to Cuba have greatly aided the charitable work. The president of the American Red Cross and representatives of other contributory organizations have generously visited Cuba and co-operated with the consul general and the local authorities to make effective distribution of the relief collected through the efforts of the central committee. Nearly \$200,000 in money and supplies has already reached the sufferers, and more is forthcoming. The supplies are admitted duty free, and transportation to the interior has been arranged so that the relief at first necessarily confined to Havana and the larger cities is now extended through most if not all of the towns where suffering exists. Thousands of lives have already been saved. The necessity for a change in the condition of the *reconcentrados* is recognized by the Spanish Government. Within a few days past the orders of Gen. Weyler have been revoked, the *reconcentrados* are, it is said, to be permitted to return to their homes, and aided to resume the self-supporting pursuits of peace; public works have been ordered to give them employment, and a sum of \$600,000 has been appropriated for their relief.

"The war in Cuba is of such a nature that, short of subjugation or extermination, a fine military victory for either side seems impracticable. The alternative lies in the physical exhaustion of the one or the other party, or perhaps of both, a condition which in effect ended the ten years' war by the truce of San Juan. The prospect of such a protraction and conclusion of the present strife is a contingency hardly to be contemplated with equanimity by the civilized world, and least of all by the United States, affected and concerned as we are, deeply and intimately, by its very existence. Realizing this, it appeared to be my duty, in a spirit of true friendliness, no less to Spain than to the Cubans, who have so much to lose by the prolongations of the struggle, to seek to bring about an immediate termination of the war."

The President recounted the recent diplomatic efforts of the United States, and examined the untied measures mentioned in the last annual message—viz., recognition of the insurgents as belligerents, recognition of the independence of Cuba, neutral intervention to end the war by imposing a rational compromise between the contestants, or intervention in favor of one or the other party, forcible annexation being excluded as being criminal aggression according to the American code of morality. The recognition of belligerency would effect nothing toward the pacification of the island, while the recognition of the independence of the present insurgent Government would be contrary to the uniform policy and practice of the United States, which has been to avoid interfering in disputes relating to the internal government of other nations, and eventually to recognize the authority of the prevailing party without reference to Amer-

ican interests or to the merits of the controversy. In the case of Texas and in that of the revolted European dependencies, the United States went beyond the tests imposed by public law as to the recognition of independence, requiring not only that the new state should constitute a body politic having a government in substance as well as in name, possessing the elements of stability and capable of discharging international duties, but also that the danger of its being again subjugated by the parent state should have passed away. His conclusions on this question were as follow:

"From the standpoint of expediency I do not think it wise or prudent for this Government to recognize at the present time the independence of the so-called Cuban republic. Such recognition is not necessary in order to enable the United States to intervene to pacify the island. To commit this country now to the recognition of any particular Government in Cuba might subject us to embarrassing conditions of international obligation toward the organization so recognized. In case of intervention, our conduct would be subject to the approval or disapproval of such Government. We should be required to submit to its direction and assume to it the mere relation of a friendly ally. When it shall appear hereafter that there is within the island a Government capable of performing the duties and discharging the functions of a separate nation, and having, as a matter of fact, the proper forms and attributes of nationality, such Government can be promptly and readily recognized, and the relations and interests of the United States with such a nation adjusted.

"There remains the alternative form of intervention to end the war, either as an impartial neutral by imposing a rational compromise between the contestants, or as the active ally of one party or the other. As to the first, it is not to be forgotten that during the last few months the relation of the United States has virtually been one of friendly intervention in many ways, each not of itself conclusive, but all tending to the exertion of potential influence toward an ultimate pacific result, just and honorable to all the interests concerned. The spirit of all our acts hitherto has been an earnest, unselfish desire for peace and prosperity in Cuba, untarnished by differences between the United States and Spain, and unstained by the blood of American citizens. The forcible intervention of the United States as a neutral to stop the war, according to the large dictates of humanity and following many historical precedents, where neighboring states have interfered to check hopeless sacrifices of life by internecine conflicts beyond their borders, is justifiable on rational grounds. It involves, however, hostile constraint upon both parties to the contest, as well to enforce a truce as to guide the eventual settlement. The grounds for such intervention may be briefly summarized as follows: First, in the cause of humanity to put an end to the barbarities, bloodshed, starvation, and horrible miseries now existing there, and which the parties to the conflict are either unable or unwilling to stop or mitigate. It is no answer to say this is all in another country, belonging to another nation, and is therefore none of our business. It is especially our duty, for it is right at our door. Secondly, we owe it to our citizens in Cuba to afford them that protection and indemnity for life and property which no Government there can or will afford, and, to that end, to terminate conditions which deprive them of legal protection. Thirdly, the right to intervene may be justified by the very serious injury to the commerce, trade, and business of the people, by the wanton destruction of property and the devastation of the island. Fourthly, the present condition of affairs

in Cuba is a constant menace to our peace, and entails upon this Government enormous expense. With such a conflict waged for years in an island so near, with which our people have such trade and business relations, where the lives and liberty of our citizens are in constant danger, their property destroyed, themselves ruined, where our trading vessels are liable to seizure, and are seized at our very door by the war ships of a foreign nation, the expeditions of filibustering that we are powerless altogether to prevent, and the irritating questions and entanglements thus arising—all these and others that I need not mention, with the resulting strained relations, are a constant menace to our peace, and compel us to keep on a semiwar footing with a nation with which we are at peace."

The message next refers to the destruction of the "Maine" as an impressive proof of a state of things in Cuba that was intolerable, showing a condition such that the Spanish Government could not assure safety to a vessel of the American navy in the harbor of Havana on a mission of peace, and rightfully there. The President laid the whole question before Congress for its decision as to the course of action to be pursued, concluding with these declarations and recommendations:

"Sure of the right, keeping free from all offense ourselves, actuated only by upright and patriotic consideration, moved neither by passion nor selfishness, the Government will continue its watchful care over the rights and property of American citizens, and will abate none of its efforts to bring about by peaceful agencies a peace which shall be honorable and enduring. If it shall hereafter appear to be a duty imposed by our obligations to ourselves, to civilization and humanity, to intervene with force, it shall be without fault on our part, and only because the necessity for such action will be so clear as to command the support and approval of the civilized world. The long trial has proved that the object for which Spain has waged the war can not be attained. The fire of insurrection may flame or may smother with varying season, but it has not been, and it is plain that it can not be, extinguished by present methods.

"The only hope of relief and repose from a condition which can no longer be endured is the enforced pacification of Cuba. In the name of humanity, in the name of civilization, in behalf of endangered American interests which give us the right and the duty to speak and to act, the war in Cuba must stop. In view of these facts and these considerations I ask the Congress to authorize and empower the President to take measures to secure a full and final termination of hostilities between the Government of Spain and the people of Cuba, and to secure in the island the establishment of a stable Government capable of maintaining order and observing its international obligation, insuring peace and tranquillity and the security of its citizens as well as our own, and to use the military and naval forces of the United States as may be necessary for these purposes. And in the interest of humanity, and to aid in preserving the lives of the starving people of the island, I recommend that the distribution of food and supplies be continued, and an appropriation out of the public treasury to supplement the charity of our citizens. The issue is now with the Congress. I have exhausted every effort to relieve the intolerable condition of affairs which is at our doors. Prepared to execute every obligation imposed upon me by the Constitution and the law, I await your action."

An appended paragraph conveyed the information that Gen. Blanco, in order to prepare and facilitate peace, had been directed to proclaim a suspension of hostilities. "If this measure," the

President said, "attained a successful result, then our aspirations as a Christian, peace-loving people will be realized. If it fails, it will be only another justification of our contemplated action."

Rupture of Diplomatic Relations.—While parties in the United States were at variance, and the Houses of Congress were divided, on the question of recognition of the Cuban republic, all Spanish parties were of one mind in preferring war to yielding to the pretensions of the United States to intervene in Cuba as embodied in the President's message and in both the sets of resolutions before Congress. A Cabinet crisis was averted by a declaration from the responsible parties in support of the ministry. Don Carlos issued a manifesto in which he said that the Carlist was a traitor who would rise against Spain in the face of a war with the United States, but that if the Government permitted the loss of Cuba without war the Carlists would be traitors not to respond to the voice of the King. There were riotous demonstrations of Carlists in Madrid and other towns, and an outbreak of Republicans was threatened in Catalonia in case the Government weakened. The Cabinet, however, announced its purpose to take a resolute stand in defense of Spain's inalienable rights of sovereignty and honor. The doctrines laid down in the President's message were declared to be incompatible with the sovereignty and rights of the Spanish nation, and to constitute an interference with the internal affairs of Spain. In a note to the powers the Cabinet protested against calumnious charges against Spain in the resolutions of the Senate and House of Representatives and the aggressive attitude assumed by the United States. The note contained a complaint against the United States for aiding the Cubans, and repeated the denials of Spanish cruelty. A national fund was raised by subscription for increasing the navy. The Cortes were convoked for April 20, five days before the appointed time, in order that, in a situation of extraordinary importance, the national will, which has the duty of guiding the powers intrusted with the defense of the honor and integrity of the country, should be enabled to express its wishes.

The speech from the throne, which the Queen Regent read at the opening of the Cortes, dwelt on the graver complications resulting from the turn that Cuban affairs had taken. These complications were said to have been brought about by a section of the people of the United States who, seeing that the autonomy promised was about to be applied, foresaw that a free manifestation on the part of the Cuban people through its Chambers was destined to frustrate forever the schemes against the Spanish sovereignty formed by those who, with the resources and hopes furnished from the neighboring coasts, delayed the suppression of the insurrection in that unhappy island. "Should the Government of the United States," the Queen was made to say, "yield to this blind current, the threats and insults which hitherto we have been able to regard with indifference as not being expressions of the feelings of the true American nation would become intolerable provocations which would compel my Government, in defense of the national dignity, to break off relations with the Government of the United States." In anticipation of the critical moment when "neither the sanctity of our right nor the moderation of our conduct nor the express wish of the Cuban people freely manifested" might serve to restrain passions and hatred, and when reason and justice would have for their support only the courage and traditional energy of the Spanish people, the Queen appealed to Parliament to give its supreme sanction to the unalterable decision of the Government to defend Spanish rights, whatsoever sacrifices might be en-

tailed. Premier Sagasta called on his followers to unite for the purpose of resisting odious attacks upon the integrity of the kingdom, and declared that Spain would not allow a parcel of her territory to be taken from her with impunity, nor would she be a party to any trafficking in connection with her possessions.

France and Austria endeavored to bring about one more concerted effort to avert war by the friendly joint mediation of the great powers, but desisted when Great Britain refused to take part in any such negotiations. The Spanish minister at Washington received instructions to leave his post as soon as resolutions of intervention were accepted by the President. On April 20 President McKinley signed the joint resolutions of Congress declaring that the people of Cuba are and of right ought to be free and independent; that it is the duty of the United States to demand, and that the Government of the United States does demand, that the Government of Spain at once relinquish its authority and government in the island of Cuba, and withdraw its land and naval forces from Cuba and Cuban waters: that the President of the United States be and he hereby is directed and empowered to use the entire land and naval forces of the United States, and to call into the actual service of the United States the militia of the several States to such extent as may be necessary to carry these resolutions into effect; and that the United States hereby disclaims any disposition or intention to exercise sovereignty, jurisdiction, or control over said island, except for the pacification thereof, and asserts its determination, when that is accomplished, to leave the government and control of the island to its people. The preamble set forth that the abhorrent conditions which have existed for more than three years in the island of Cuba, so near their own borders, have shocked the moral sense of the people of the United States, have been a disgrace to Christian civilization, culminating, as they have, in the destruction of a United States battle ship, with 266 of its officers and crew, while on a friendly visit in the harbor of Havana, and can not be longer endured.

As the Spanish Government had announced a purpose to break off diplomatic relations as soon as the resolutions of Congress were accepted by the President, Mr. McKinley did not affix his signature until he had embodied the resolutions in an ultimatum, which was cabled to the American minister at Madrid. The contents of the dispatch were officially communicated to the representative of Spain at Washington on the same day, together with notice that three days would be given to Spain within which to comply with the demands. Thereupon Minister Polo y Bernabe asked for and received his passports and departed for Canada, committing Spanish interests to the care of the French ambassador. The dispatch sent to Gen. Woodford for communication to the Spanish Government contained the text of the resolutions, with the ultimatum that unless by noon on April 23 a full and satisfactory response, whereby the ends of peace in Cuba should be assured, were received, the President would proceed without further notice to use the power and authority conferred on him to the extent necessary to carry the resolutions into effect. Before he could communicate this message of the President to the Spanish Government Gen. Woodford received a note from the Spanish Minister of Foreign Affairs declaring that the sanctioning by the President of the congressional resolution which denied the legitimate sovereignty of Spain and threatened armed intervention in Cuba was equivalent to a declaration of war, and informing him that diplomatic relations and all official communications between the representatives of the two countries

ceased by that act. The American minister accordingly applied for his passports, turned the legation over to the British embassy, and left for Paris. A mob at Valladolid stoned the train and attempted to storm it, and at Madrid everything belonging to Americans was smashed by rioters.

On April 18 the Spanish Government defended its course in a circular note in which President McKinley was accused of suddenly changing his attitude when he perceived the likelihood of the new institutions in Cuba proving successful, being determined to paralyze all efforts at reconciliation in order to realize the traditional American ambitions. The joint resolution of Congress signed by the President after the proclamation of an armistice could only be regarded as a declaration of hostilities, and hence Spain had broken off diplomatic relations the continuance of which could only have exposed her to fresh insults. The professed humane motives on the part of the United States, which has the pretension to exercise absolute hegemony over the American continents, were a mere pretext, since President McKinley had declared himself against the recognition of Cuban independence as well as against Spanish sovereignty, leaving annexation as the only alternative; and certainly the island would never be declared pacified until ripe for absorption into the United States. In a circular sent on April 23 the Spanish Government announced its determination to defend the right to remain in America, and having been compelled to appeal to force in order to repel the scandalous aggression of the United States and defend the national dignity and historical integrity of the fatherland, having on its side right, correct procedure, and prudence, while the United States was actuated by disloyalty and unbridled ambition, it awaited the attack with tranquil serenity, confident that it would have the assistance of the Cubans, who also are Spaniards.

The work on the coast defenses, not only at New York, but at Portland, Boston, Newport, Charleston, Jacksonville, and Mobile, had been carried on to such an extent, mines being placed in the harbors and guns placed in position in the forts, that their capture or shelling by the Spanish fleet was almost an impossibility. At New York no vessel was allowed to enter the harbor between sunset and sunrise, and in the daytime steamers were only permitted to pass at slow speed through a special channel. Patrol boats above and below the defenses stopped all suspicious vessels, or those that disregarded the regulations, and shipmasters were warned that if they did not observe instructions in passing through the mine fields they exposed themselves to danger from the mines, and moreover might be fired on by the batteries. Nevertheless, many steamers crossed the fields by forbidden channels, and fishermen cut torpedoes from their moorings in order to spread their nets.

The Naval Situation.—In a war between the United States and Spain it was a primary necessity for either power, before it could make use of its land forces with safety, that it should establish its naval superiority within the sphere of operations, either by meeting and defeating the enemy's naval forces at sea or by shutting them up in port. Each country possessed a modern navy, which they had begun to construct about the same time. Except the "Pelayo" battle ship in Spain, and the "Chicago" and "Atlanta" class of cruisers in America, all the effective constructions in each country belonged to the extensive programme that each had undertaken within a dozen years. The two fleets were so nearly balanced in nominal strength that naval critics could hardly pronounce between them. Both consisted mainly of cruisers, with a superiority

of battle ships on the American side, offset by the Spanish flotilla of fast torpedo boats and dreaded destroyers. Although war had been long talked about, and the relations between the two countries had been strained for many months, neither had begun serious preparations for war until the last month, when both powers exerted every effort to obtain suitable vessels with which to augment their naval strength. In the United States a board of naval officers was charged with the duty of selecting and purchasing passenger steamers, yachts, and tugs, to be used as auxiliary cruisers, lookouts, torpedo craft, or for harbor defense. Officers were also sent to Europe, who made purchases or secured refusals of any war vessels of good construction and design that were to be obtained from naval constructors or foreign governments. To get such, the American and the Spanish agents vied in bidding high prices lest they should be added to the forces of the other power. Thus the two Brazilian cruisers, "Abreu" and "Amazonas," just completed in England, a German torpedo boat which was christened the "Somers," and the Japanese second-class cruiser "Diogenes," renamed the "Topeka," were secured for the United States, also the Brazilian cruiser "Nichteroy" in Rio de Janeiro. The ocean greyhounds "New York" and "Paris," of the American Line, were armed according to the prearranged plan, and rechristened "Yale" and "Harvard." The "St. Paul" and "St. Louis" were taken from the same company to serve as armed transports. The ambulance ship "Solace" was fitted out. Four steamers of the Morgan Line were converted into the cruisers "Yankee," "Dixie," "Prairie," and "Yosemite," with 10 6-inch or 5-inch rapid-fire guns in their main batteries. The yacht "Mayflower" made an effective gunboat. All these vessels were plated with light armor. All the revenue cutters, coast-survey vessels, etc., were turned into vessels of war. Torpedo boats and destroyers under contract were hurried to completion. Colliers, transports, distilling ships and hospital ships were found among the merchant navy. Of lighthouse tenders, surveying steamers, etc., about 15 were added to the fighting ships, while over 40 merchant vessels were purchased.

Both nations with the utmost speed hurried the work on vessels they had purchased or were having repaired in foreign ports, and withdrew the warlike stores they had contracted for, lest an outbreak of war should find these acquisitions locked up in foreign territory and inaccessible under the neutrality laws. While Spain had a naval reserve of 25,000 trained men, exceeding the number in active service, the reserves in the United States consisted only of naval militia. Hence high pay was offered, \$24 a month for seamen, and \$40, \$55, and \$70 for the different grades of machinists, in order to secure experienced men for the new vessels. The cadets at Annapolis were ordered to sea to supply the lack of junior officers.

When a state of war was declared the United States had already assembled at Key West, the advanced military and naval base, the steel cruiser "New York," flagship, the battle ships "Iowa" and "Indiana," the cruisers "Cincinnati," "Detroit," "Marblehead," "Montgomery," "Nashville," "Wilmington," and "Helena," together with the monitors "Puritan," "Amphitrite," and "Terror," the torpedo flotilla consisting of the "Dupont," "Cushing," "Ericsson," "Foote," "Porter," "Rodgers," and "Winslow," the dispatch vessel "Dolphin," the gunboats "Castine," "Machias," "Vicksburg," and "Newport," the dynamite cruiser "Vesuvius," the dispatch boat "Fern," and the tugs "Leyden" and "Samoset." The "Oregon," at San Francisco, was ordered to join the fleet. Capt. William T.

Sampson was placed in command of the squadron at Key West. Here great stocks of coal, provisions, stores of all kinds, and munitions of war were accumulated. The color of all the United States ships was changed from shining white to dull slate color.

At Hampton Roads was quickly collected the flying squadron under Commodore Winfield S. Schley, consisting of the steel-armored cruiser "Brooklyn," flagship, the battle ships "Massachusetts" and "Texas," the protected cruisers "Columbia" and "Minneapolis," and the ram "Katahdin."

A third squadron was assembled in the China seas, comprising the protected cruisers "Olympia," "Baltimore," "Raleigh," and "Boston," and the gunboats "Concord," "Petrel," and "Monocacy," with three merchant steamers purchased to serve as tenders.

On the Pacific station, after the "Oregon" left, were the monitors "Monterey" and "Monadnock," the cruiser "Bennington," and the gunboats "Marietta" and "Alert." The cruiser "San Francisco" and the "New Orleans," recently built in England, were at Halifax, and were ordered at first to join the squadron at Key West. The training ship "Bancroft" and the torpedo boats "Gwynn" and "Talbot" were unassigned. The cruiser "Wheeling," the monitor "Miantonomoh," and the steamer "Pensacola" were assigned to special service. The monitors "Catskill," "Montauk," "Passaic," "Jason," "Lehigh," "Nahant," "Canonicus," "Mahopac," "Manhattan," and "Nantucket," with the training ships "Constellation," "Alliance," "Adams," and "Mohican," the "Yankee," "Dixie," "Prairie," "Yosemite," "St. Paul," "St. Louis," "Panther," "Badger," and "Resolute," of the auxiliary fleet, were held in reserve to defend the northern ports.

The number of vessels added to the navy by purchase was 103, besides which the 4 vessels of the International Navigation Company were chartered, and another vessel was leased. In addition to these, the revenue cutters and lighthouse tenders were added to the auxiliary fleet. The total effective force of the navy was 4 first-class battle ships, 1 of the second class, 2 armored cruisers, 6 coast-defense monitors, 1 armored ram, 12 protected cruisers, 18 gunboats, 1 dynamite cruiser, and 11 torpedo boats. The auxiliary navy comprised 11 auxiliary cruisers, 28 converted yachts, 19 converted colliers, 15 revenue cutters, 4 lighthouse tenders, and 19 miscellaneous vessels. The enlisted force of the navy was increased until it reached, on Aug. 15, the maximum number of 24,123 men and apprentices. The auxiliary navy was manned by the naval militia of the several States.

The coast batteries, after receiving their armaments, were garrisoned by about 12,000 infantry and light artillerymen drawn from the volunteer forces and by State militia. The coast signal service was organized on land better than on the sea, having the co-operation of the lighthouse and life-saving services, enabling the Navy Department to keep all parts of the Atlantic coast from Maine to Texas under observation. Submarine mines were laid under the direction of the chief of engineers to the number of 1,535 in all the principal harbors of both coasts.

Spain had still in Cuban waters only the "Alfonso XII" and some minor second-class cruisers, besides numerous gunboats. The whole force numbered fifty-three vessels, though few were capable of fighting outside of the harbors. The "Vizcaya" and "Almirante Oquendo" had departed from Puerto Rico on April 9 for the Cape Verd Islands, where the torpedo flotilla and the first Spanish squadron were ordered to rendezvous. The Spanish liners were requisitioned and fitted out as auxil-

iary cruisers. The ships "Normannia" and "Columbia," purchased from the Hamburg-American line and armed by Krupp, were a valuable addition to the Spanish fighting force. They were renamed the "Rapido" and "Patria."

When the effective vessels of the Spanish navy that were ready for use were assembled in the Portuguese port of St. Vincent, Cape Verd, the fleet, which was commanded by Admiral Cervera, consisted of the belted cruisers "Vizcaya," "Almirante Oquendo," "Infanta Maria Teresa," and "Cristobal Colon," the destroyers "Furor," "Terror," and "Pluton," and three torpedo boats.

A second squadron was being fitted out at Cadiz, containing some of the strongest of the Spanish vessels, on which, however, much required to be done to make them ready for sea. It comprised the "Pelayo," "Carlos V," "Alfonso XIII," and another torpedo flotilla, including the destroyers "Aridaz," "Prosperina," and "Destructor." The "Reina Regente," which was being armed at Ferrol, and the "Leon XIII" afterward joined the squadron, which contained also the "Rapido" and "Patria," the dispatch boat "Giralda," and the auxiliary cruisers "Joaquin de Pielago," "Alfonso XII," "Antonio Lopez," "Ciudad de Cadiz," and "Buenos Ayres." Admiral Caméra was placed in command of this reserve squadron. The torpedo gunboat "Temerario" was at Buenos Ayres, and it was expected that she would endeavor to surprise the battle ship "Oregon" somewhere off the eastern coast of South America.

On the principal vessels of Admiral Caméra's fleet some parts of the machinery or armament were still lacking or out of repair. There were other vessels of formidable character that were still less advanced, but which were being pushed to completion as rapidly as possible for the purpose of forming a third squadron, which should include the reconstructed battle ship "Vitoria," the belted cruiser "Cardenal Cisneros," the "Princesa de Asturias," the "Lepanto," the "Numancia," and the torpedo gunboats "Dona Maria de Molina," the "Marques de la Victoria," and "Don Alvaro de Bazan." The "Buenos Ayres," "Antonio Lopez," "Joaquin de Pielago," and "Ciudad de Cadiz," auxiliary cruisers from the fleet of the Compañia Transatlantica, were armed with guns of 16, 12, and 9 centimetres' caliber, besides Maxims.

The Autonomist Government.—The elections for the Autonomous Congress were held under the auspices of the Spanish military officials. A few Cubans who had been identified with the revolutionary cause joined the Autonomists when war became inevitable. *Parlementaires* who were sent to try to induce the insurgents to accept the armistice were not received by the Cuban leaders. The armistice had not been observed by the Spanish commanders, who carried on all their operations at least as vigorously as before. On April 21 the Autonomist Colonial Government issued a proclamation to the inhabitants of Cuba, calling upon all to unite in defense of the integrity of Spain and the autonomy of Cuba against the ambition of the Americans, who wished to possess themselves of the island, with the result that it would be dominated by a strange race, opposed in temperament, traditions, language, religion, and customs, which would be silently eliminated by those who seek to gain by subjugation and absorption.

The Autonomist Council was opened by Capt.-Gen. Blanco on May 4. Fernandez del Casco was made president. A notification was made to all foreign governments that Cuba was pacified and accepted autonomy by a large majority of the people. Capt.-Gen. Blanco, in his opening address, said that Spain had given all that she could be

called upon to give to satisfy the aspirations of the people; that the autonomist form of government was as ample as that of the British colonies, and would be made more ample still if such a course were judged to be necessary by the Autonomist Congress. All the new laws were to go into force on July 1.

Attempts to Relieve the Cubans.—Soon after a state of war was declared Lieut.-Col. Joseph H. Dorst was ordered to investigate the strength of the rebellion in western Cuba, while Lieut. A. S. Rowan was sent to confer with leaders in the east, and Lieut. Henry Whitney was detailed to visit Gen. Gomez in central Cuba. Col. Dorst, after visiting the coast of Pinar del Rio in the "Leyden," and conferring with the Cubans near Banes, took charge of a cargo of rifles and ammunition for Perico Delgado's force, which were conveyed on the steamer "Gussie," whose departure and destination, with the details of the intended landing, were published in the American newspapers despite the admonitions given to reporters by the naval authorities. The result was that when the "Gussie" attempted a landing east of Mariel, and afterward at Banes, instead of the insurgents, who were expected to receive the supplies, large bodies of Spanish troops were found patrolling the shore. After this a censorship of press dispatches was instituted which was strictly administered during the whole war. Gen. Greely, chief of the Signal Service, first issued orders directing the suppression of all messages "inimical to the United States," which were afterward modified so as to cover press messages containing information of prospective naval movements or current military operations.

Lieut. Rowan, landing on April 26, traversed the province of Santiago de Cuba, which had been evacuated by the Spaniards, except three towns and the blockhouses defending the railroad. Gen. Pando, the military commandant of the province, had sent a third of his force of 18,000 men to Havana. He withdrew on April 25 to Manzanillo from Bayamo, which was immediately occupied by Gen. Calixto Garcia, who issued a proclamation declaring that the property and civil rights of the Spaniards would be respected. Lieut. Rowan brought back the information that the Cuban general could furnish a contingent of at least 8,000 well-armed men to co-operate with an army of invasion, and that as guides the Cubans would prove invaluable, as they had a rapid method of transmitting information from all parts of the island.

The Cuban forces increased at a rapid rate after the declaration of war, all the Captain General's efforts to induce the Cubans to accept any form of autonomy that they themselves might dictate and join the Spaniards in fighting the Americans having proved useless. His orders forbidding the sale of food, and confiscating for the use of the soldiers the supplies contributed by Americans for the succor of the *reconcentrados*, caused an enormous increase of mortality among the latter. Those who could travel left the towns in droves to join the insurgents, who were unable to relieve their necessities, and turned away all except a few who were able-bodied and had friends in their ranks. The Spanish troops in central Cuba were withdrawn from Sancti Spiritus and other towns, which were destroyed, and were concentrated on the Jucaro-Moron trocha to prevent a junction of Gen. Garcia and Gen. Gomez. The Cuban general-in-chief deprecated the invasion of Cuba by an American army, believing that with arms and supplies furnished by the United States, and aided only by a force of American artillery, the Cubans could compel the Spanish garrison to evacuate the island. Gomez feared perhaps a prolonged American oc-

cupation and dictation in the political reconstruction of Cuba. He had under arms and within call a force not exceeding 3,500 men, including 800 infantry commanded by Gen. Gonzalez, armed with Mausers and Remingtons, and 150 cavalry and 700 infantry led by the American Joseph Desrampes, an expert artillerist, which formed his immediate command. He asked for 40,000 rifles and several million cartridges to arm the entire Cuban army, and a small supply of provisions landed at several points, promising that if the American fleet maintained an effective blockade he would free Cuba without spilling a drop of American blood or losing a man from sickness.

The Spaniards from their reduced area of occupation began in the beginning of May to prosecute more actively their operations against Gen. Gomez. Lieut. Whitney was landed on the coast, met a Cuban escort, and, after a brush with the Spanish patrol, reached the camp of Maximo Gomez in Santa Clara on April 28. He arranged for the landing of supplies and of Cuban volunteers that had been enlisted in the United States.

A body of 750 Cubans was recruited under the auspices of the Cuban junta and placed under the command of Gen. Lacret, recently commander of insurgents in Matanzas, after being armed and equipped by the United States Government and trained by regular army officers. Gen. Gomez called together his scattered bands until he had concentrated 3,000 men. With these he waited two weeks on the coast for the expedition, until his men were obliged to kill their horses for food. Finally, giving up hope of receiving the promised munitions and supplies, he ordered the men to disperse. The "Gussie" and "Suwanee" attempted to land the expedition, but were unable to effect a landing on the north coast. The "Gussie" returned to Tampa, while the "Suwanee" went round to the south coast in search of an unguarded landing place on that side of Santa Clara province, but Rear-Admiral Sampson stopped her at Santiago and had the supplies handed over to the Cubans under Gen. Cabreco. The Vice-President of the provisional Cuban republic, Domingo Mendez Capote, went to the United States before the end of May to inform the Government authorities at Washington of the needs and resources of the insurgent forces, which he acknowledged were in sore straits and greatly reduced in numbers. Yet he declared that they would not permit American interference or control in Cuba, however beneficent that control might be. Capt. Dorst left Tampa on May 16 with 450 Cubans under Gen. Lacret, a large number of mules, and quantities of ammunition and rifles and of clothing for the troops of Gen. Garcia. Gen. Baldomero Acosta and other Cubans who had joined the insurgents in Pinar del Rio from the "Leyden," after a skirmish with Spanish cavalry, explained to Delgado the plans for the landing of supplies and arms.

The "Gussie" reached the entrance of Mariel Bay on May 12, and under cover of the guns of the "Manning" and "Wasp" landed near Cabañas a party of United States regulars under the command of Lieut. Crofton, who were opposed by a force of Spanish infantry. The Spaniards were put to flight by the firing of the landing party from the bush and the shells of the gunboats, losing twelve or more men in the retreat, but they had effectually intercepted the Cubans and prevented the delivery of the arms and ammunition intended for them, so that the troops were obliged to re-embark without accomplishing their purpose of landing a cargo of nearly 7,000 rifles, 200,000 cartridges, canned food, and clothing. These were the munitions and supplies that the "Gussie" had failed to land in Cuba.

The "Florida" was conveyed by the "Osceola." By agreement 1,500 Cubans under Col. Feria and Col. Rojas met the expedition on the coast of Santiago province, and the men and munitions were landed without being observed by the Spanish forces.

Spanish Spy System.—Minister Polo y Bernabe stayed in Canada with his suite until May 21, and after his departure Secretary of Legation du Bosc remained in Quebec, and Lieut. Ramon Carranza, the naval *attaché*, in Montreal. These two conducted an elaborate system of secret intelligence by means of a corps of spies distributed throughout the United States, which was in a measure frustrated by the vigilance of the American authorities who captured in May one of the principal Spanish agents in Washington, another in Tampa, and others of less importance in various places. The spy service had been set on foot long before the rupture of diplomatic relations, when the naval *attaché* was Lieut. Sobral, who boasted that he had complete plans of all the American coast fortifications. An intercepted letter of Carranza revealed to the Canadian Government the nature of his activity, in consequence of which he was expelled from the country early in June.

The United States Volunteer Army.—On April 23 the President issued a proclamation in accordance with the act of Congress approved the day before for volunteers to the aggregate number of 125,000, to be apportioned as far as practicable among the several States and Territories according to population, and to serve for two years unless sooner discharged, in order to carry out the joint resolution of Congress for the recognition of the independence of the people of Cuba, directing the President to use the land and naval forces of the United States to carry into effect the resolution demanding that the Government of Spain relinquish its authority and government in Cuba and withdraw its forces. The bill provided for the expansion of the volunteer force to any number required to meet future war emergencies, the maximum being changed from time to time in accordance with presidential recommendations to Congress. The essential feature of the plan was the individual enlistment of every volunteer. It was desired to utilize the military training and *esprit du corps* of the National Guards of the several States, who were expected to form the whole force first called for, and therefore the bill provided for acceptance of the existing organizations, but each of these was required to become a part of the United States army independent of the State authorities, every man being sworn into the United States service as an individual, and every officer receiving his commission from the President, to whom was reserved the authority to make selections for every rank. The volunteer forces were kept separate and distinct from the regular army, to be commanded at all times by volunteer officers, the officers of the regular army being confined to commands of the regular troops.

The regular and volunteer army was organized in 7 corps and a cavalry division. A Department of the Pacific was created, and Major-Gen. Wesley Merritt was assigned to the command, with the duty of organizing the expeditionary force for the Philippines and directing the military occupation of those islands, with Major-Gen. Elwell S. Otis second in command; Major-Gen. John R. Brooke was assigned to the command of the First Corps in the Department of the Gulf; Major-Gen. William M. Graham to the command of the Second Corps, with headquarters at Falls Church, Va.; Major-Gen. James F. Wade to the command of the Third Corps, to report to Gen. Brooke at Chickamauga; Major-

Gen. John J. Coppinger to the command of the Fourth Corps at Mobile; Major-Gen. William R. Shafter to the command of the Fifth Corps at Tampa; Major-Gen. James H. Wilson to the command of the Sixth Corps, with orders to report to Gen. Brooke; Major-Gen. Fitzhugh Lee to the command of the Seventh Corps, which was ordered to Tampa; and Major-Gen. Joseph Wheeler to the command of the volunteer cavalry division at Tampa. The President appointed 11 major-generals, all but 4 promoted from the regular army, and 26 brigadiers, also regulars, to command the volunteer army. Many young men of wealth and education and students of the universities and colleges volunteered to serve in the ranks. In the First Volunteer Cavalry Regiment, raised by Theodore Roosevelt, who resigned for the purpose the office of Assistant Secretary of the Navy and a membership on the Board of Strategy, taking a commission as lieutenant colonel, while Col. Leonard Wood, a former army officer, took command of the regiment, polo players of the Eastern clubs, New York mounted policemen, and ranchmen from the Western plains took their places side by side. This regiment was popularly known as Roosevelt's Rough Riders. Another regiment of rough riders was raised among the cowboys and plainsmen by Col. Terry, of Arizona. The war gave an opportunity to wealthy citizens to show their patriotism and to the South to show its loyalty to the Union. Miss Helen M. Gould offered to fit out a cavalry regiment for the Cuban army, after first offering the money to the Government, which was not empowered to accept donations. O. H. P. Belmont, of New York, offered his yacht, and John Jacob Astor, who was appointed later a staff officer, armed a battery of artillery.

Immediate responses from the Governors of nearly all the States and Territories offered volunteers much in excess of the number called for by the President. Massachusetts, New York, and other States had appropriated large sums of money and begun to muster their National Guard regiments and furnish them with service uniforms, arms, and necessities for a tropical campaign.

By another act of Congress the strength of the regular army was increased to 62,000 men. At the beginning of May a force of about 7,000 men was concentrated at Tampa. An immediate expedition to Cuba was planned, but after the sailing of the Spanish ships from Cape Verd the orders were countermanded. It was intended to form a junction with whatever forces Gomez could raise, and to supply these with arms and ammunition, and relieve the starving Cubans outside of Havana from a base to be established on the coast of Cuba.

The strength of the regiments mustered in was 1,000 men. National Guard regiments of this strength were accepted and maintained as organizations, and, if they were not of full strength, they were allowed to recruit their complement. Volunteers to the number of 1,000 from a single State must be collected into a single regiment, and its strength be kept up as far as possible by volunteers from that State. If a State's quota did not reach 1,000 men, the regiment was filled up with volunteers from adjoining States.

Late in May the President called for 75,000 more volunteers, making the total strength of the army to be organized, regular and volunteer, more than 280,000 men. Instead of relying, as before, on the National Guards, the Government now resorted to open enlistment. When the Spanish fleet appeared in the Caribbean Sea the army that was getting ready to invade Cuba, numbering then 45,000 men, was ordered to concentrate at Chickamauga instead of proceeding to Tampa, Mobile, and New Orleans for immediate embarkation. For the troops to be

next mustered in a camp was prepared at Washington.

The Blockade of Cuba.—The dismissal of Minister Woodford was considered equivalent to a declaration of war, and a state of war was assumed to exist from April 21. To regularize the situation, Congress passed on April 25, and the President signed, a declaration to that effect, empowering the President to use the land and naval forces of the United States and to call into service the militia of the several States. A notification of the act was telegraphed to all of the United States legations, to be communicated to foreign governments, so that their neutrality might be assured. The squadron at Key West received orders to blockade the Cuban coast at once. War preparations had been pushed with redoubled energy in both countries during the diplomatic crisis, when in all quarters except the Vatican hopes of a peaceful issue had vanished. The Spanish Minister of War issued orders for 80,000 reserves, and in Cuba Gen. Blanco called all men to arms. Three vessels loaded with troops sailed from Cadiz on April 21. Capt. William T. Sampson, who had been placed in command of the North Atlantic squadron, was made acting rear admiral. Armed yachts and merchant steamers were being made ready to re-enforce the blockading squadron. Meanwhile Admiral Sampson confined his efforts to sealing up the larger ports. The President proclaimed the blockade on April 22, announcing that a sufficient force would be posted to prevent the entrance or exit of vessels from all ports on the north coast between Cardenas and Bahia Honda and the port of Cienfuegos, on the south coast. Any neutral vessel approaching or attempting to leave a blockaded port without notice or knowledge of the blockade would be warned by the commander of the blockading force, and if she again attempted to enter any of the ports she would be captured. Neutral vessels in the ports were allowed thirty days to issue therefrom. Admiral Sampson kept a particularly strong force in front of Havana and Matanzas. He disposed his forces in such a manner as to have near the entrance of the blockaded ports a line of torpedo boats and other small craft, with a line of cruisers outside of these, and the battle ships in a third line beyond the probable radius of action of the enemy's torpedo craft.

The United States Government announced in the beginning that its policy would be not to resort to privateering, but to adhere to the rules of the declaration of Paris and conduct the war upon principles in harmony with the present views of nations and sanctioned by recent practice. A decree was issued by the Spanish Government on April 25 proclaiming a state of war and defining the rules of war that Spain meant to observe. In regard to privateering, it was considered indispensable to make absolute reserve in order to maintain Spain's liberty of action and uncontested right to issue letters of marque when deemed expedient, but the Spanish Government would at first confine itself to organizing immediately a force of auxiliary cruisers taken from the mercantile marine to co-operate with the navy under naval control and to exercise the right of search. The regulation that neutral flags cover the enemy's merchandise except contraband of war, and the one exempting from seizure neutral merchandise under the enemy's flag, were accepted. American vessels in Spanish ports were warned to leave within thirty days. Foreign vessels not American, if committing acts of war under letters of marque issued by the United States, would be treated as pirates. A blockade to be obligatory must be effective, and this was defined as meaning that it must be maintained with

sufficient force to prevent access to the enemy's littoral.

In the President's proclamation of April 26 declaring that war had existed since April 21, including that day, he declared respecting the right of search and the rights of Spanish vessels that the neutral flag covers enemy's goods, with the exception of contraband of war; that neutral goods not contraband of war are not liable to confiscation under the enemy's flag; that blockades in order to be binding must be effective; that Spanish vessels in American ports would have till May 21 to load and depart, and would not be molested on their voyage unless they carried officers in the enemy's service or coal or other prohibited article; that any Spanish merchant vessel bound to American ports would be permitted to enter, discharge her cargo, depart forthwith, and continue her voyage to any port not blockaded; and that the right of search must be exercised with strict regard for the rights of neutrals, and the voyages of mail steamers not be interfered with except on the clearest ground of suspicion of a violation of law in respect of contraband or blockade.

A general order issued by the Navy Department subsequently defined the rule laid down at Paris in 1856, that blockades to be binding must be effective, as meaning that the blockading force must be sufficient to render ingress and egress from a port dangerous; if the blockading vessels leave voluntarily or are driven away by the enemy's force the blockade is broken, but not if they are driven away by stress of weather or are absent in a chase. Articles adapted or designed only for hostile use by the enemy, including arms and equipments of all kinds, machinery for manufacture of arms, all ammunition and explosives, including saltpeter, armor plate, gun carriages, pontoons, range finders, and other warlike appliances and materials, and horses were declared to be absolutely contraband, while coal when destined for a naval station, a port of call, or a ship or ships of the enemy, materials for the construction of railroads or telegraphs, money destined for the enemy's forces, and provisions destined for an enemy's ship or ships, or for a place that is besieged, were conditionally contraband.

Neither Spain nor the United States was a signatory to the declaration of Paris, by which the rest of the chief maritime powers agreed not to issue letters of marque or countenance privateering in war. The British Government notified Spain that it intended to treat coal as contraband of war and would forbid its sale to both parties, and it also asked Spain what her intentions were as to the right of searching neutral vessels. The "Somers," which had put into the English port of Falmouth to take on a crew, received notice to leave when a state of war was declared before the complement of men were enlisted, and was consequently there till the end of the war. The cruiser "Albany," formerly the Brazilian ship "Admiral Abreu," was tied up in the same manner at Newcastle. The State Department received notifications from nearly all foreign governments that they would observe strict neutrality in the war between the United States and Spain. Germany sent no such notice, deeming it unnecessary.

The Blockade.—The blockading vessels formed in line before Havana in the evening of April 22. Admiral Sampson confined the blockade to the ports connected with Havana by railroad. Gen. Blanco took measures to prepare Havana for either a siege or an attack. He issued a decree declaring the island again in a state of war, annulling all previous decrees, but granting pardon to rebels who surrendered within a month. The colonial Cabinet published a manifesto protesting against the in-

iquitous attack and unjust aggression of the United States, and calling upon all Cubans, for the sake of nationality and justice, and in defense of the future of their children, to answer Gen. Blanco's call to arms. New recruits raised the force defending Havana to 100,000 men, including 60,000 volunteers.

The blockading line extended from Mariel, 60 miles west of Havana, to Cardenas, an equal distance east of the blockaded city. The "Puritan," "Cincinnati," "Machias," "Nashville," "Castine," "Newport," "Foote," "Winslow," and "Dupont" were detached to blockade Matanzas, Mariel, and Cardenas. While the boats were scouting off Matanzas the first night they were fired on by the shore batteries without sustaining any damage. The "Foote" was fired on a second time from a masked battery when she was steaming by. The officers and crews of the blockading squadron were very eager to give the Spaniards a lesson, as well as to test in actual warfare the efficiency of the guns and ships and the value of their target practice in time of peace, and the more thorough practice that they had lately received at Dry Tortugas. This the orders for a pacific blockade prevented them from doing until permission came to Admiral Sampson to retaliate on the forts at Matanzas or other points except Havana, and one or two other places, if they fired on his ships. The first shots from the fleet were fired by the "New York" upon a battalion of Spanish infantry which was trying to hit the sailors from the shore, until a 4-inch shell smashed the building in which they hid. On April 27 Admiral Sampson ordered a reconnoissance in force at Matanzas for the purpose of locating the batteries and discovering what guns they mounted and preventing the completion of a new earthwork. The "New York," "Puritan," and "Cincinnati" ran into the bay and opened fire upon this new battery. When the third shot from the 8-inch guns struck the rampart a Spanish fort returned the fire, doing no damage, nor did the American firing cause any casualties, according to the Spanish report, except the death of a mule, though a 12-inch shell from the "Puritan" struck one of the batteries and other shots were sent direct to the mark, whereas the Spanish firing was wild. The three ships fired 86 shots at ranges of 4,000 to 11,000 yards. Although it was nothing more than a reconnoissance and practice drill, this first collision of the war was vaunted as a victory by both sides. The Spaniards fired only a dozen shots, and the American fire at such long range could do no harm to earthworks. During the bombardment the rebel force under Betancourt approached with the object of attacking the city, but was driven off by the Spaniards with a loss of 20 men.

The torpedo boat "Foote" ran into the bay at Cardenas, exchanged shots with Spanish gunboats anchored there, and quickly ran out again without hitting anything or being hit. She also ran into Matanzas harbor and escaped unharmed after locating the batteries, which fired six shots. On May 2 the "Wilmington" sent two shells into the midst of a troop of cavalry that fired on the torpedo boat "Ericsson," which was patrolling a mile from the shore at Cojimar, west of Havana.

Prizes.—The Spanish freight steamer "Buena-ventura" was captured by the "Nashville" when the blockading vessels first put out to sea on April 22. Afterward the steamer "Pedro" was taken by the "New York," the schooner "Mathilde" by the "Porter," the schooners "Saco" and "Tres Hermanes" by the "Terror," the steamer "Miguel Jover" by the "Helena," the schooners "Canelita" and "Sofia" by the "Wilmington" and "Porter," and the steamers "Saturnina" and "Catalina" by

the "Winona" and "Detroit." On April 25 the United States vessel "Mangrove," which had been fitted up as a cable ship, seized off Havana the mail steamer "Panama," a Spanish auxiliary cruiser, and the gunboat "Newport" took two prizes, the sloop "Paquete" and the schooner "Pireneo." On April 26 the "Terror" captured the "Ambrosio Bolivar." The "Terror" overhauled the Spanish steamship "Guido" off Cardenas on April 27. The sloop "Engracias" was taken by the "Newport" and the schooner "Lola" by the "Dolphin" on April 28; on April 29 the steamer "Argonauta" by the "Nashville," and on May 1 the schooner "Mascota" by the "Foote." Subsequent captures were the schooner "Paco" on May 3, the steamer "Lafayette" and schooners "Oriente" and "Antonio Suarez" on May 5, the brigantine "Frasquito" and bark "Lorenzo" on May 6, the schooners "Españo" and "Poder de Dios" on May 7, the steamer "Rita" on May 8, and the fishing smacks "Santiago Apostel" and "Fernandito" and schooner "Severito" on May 9. After that prizes were rarely taken, for all Spanish fishermen and masters of coasting vessels were now aware of hostilities. Only fast British or Norwegian steamers ventured to run the blockade, and these were usually cautious enough to escape capture. The barks "Carlos F. Rosses" and "Maria Dolores" were taken on May 18 and 21. On May 22 the steamship "Ardanmohr" and on May 29 the "Restormel" were seized, both of which were afterward released, as had been previously the steamships "Miguel Jover" and "Saturnina" and the French mail steamship "Lafayette," which had obtained a promise from the American consular authorities that it would be permitted to land passengers in Havana, but no cargo. The steamship "Twickenham" was captured when attempting to run the blockade on June 10. Despite the close blockade of Havana and the north coast ports, a brisk trade in cattle, provisions, and other supplies for the city and garrison was carried on with the coast of Yucatan, from which vessels made a quick passage to the Isle of Pines, whence the supplies could be landed in boats on the south coast of Cuba and transported by rail to Havana. All the Spanish vessels were condemned by the prize court sitting at Key West, with the exception of the steamers "Catalina" and "Miguel Jover," which were exempt from capture under the terms of the President's proclamation. The blockade was extended from the coast on either side of Havana from Cardenas to Bahia Honda, first to Cienfuegos, and gradually to the whole coast of Cuba, covering more than 1,300 miles. After the heavier vessels were concentrated at Santiago blockade running was resumed on the south coast west of Santa Cruz, especially at Batabano, but an active patrol by many of the smaller ships along the whole length of about 500 miles soon rendered this extremely hazardous. After the transatlantic steamer "Santo Domingo" was driven ashore and burned by the "Eagle" few more attempts were made.

War in the Philippines.—Great Britain was the first to issue a proclamation of neutrality, in accordance with which Commodore George Dewey was notified to leave the port of Hong-Kong with the Asiatic squadron, which he had concentrated there in the latter part of February in anticipation of hostilities. He protested against the decree, but when immediately afterward the President proclaimed that a state of war existed he took his departure, on April 25, for Mir's Bay, a neighboring Chinese harbor, whence he was warned a day or two later by the Chinese Government, after a formal proclamation of neutrality. In the meantime the fleet had received orders to proceed against the Spaniards at Manila, and had been busily getting

together coal and provisions for the expedition. Commodore Dewey entered into communication with the revolutionary Filipinos, and arranged with their exiled leader, Aguinaldo, then in Hong-Kong, for provisional co-operation with them.

The Filipinos, oppressed by the financial burdens imposed on them for the support of Spanish Government authorities and clergy, and by the extortion and tyranny of the officials sent to rule over them, were unanimous in their desire to throw off the yoke of Spain. Out of an annual budget amounting to \$17,000,000, only \$60,000 was applied to education and science, \$40,000 to railroads, a trifling sum to river and harbor improvements, and nothing at all to highways and bridges, while the colony was burdened with the support of African establishments and the Spanish consular service in the eastern hemisphere, paid a heavy contribution to the expenses of the General Government in Madrid, defrayed a great part of the cost of the Colonial Office, paid \$1,600,000 a year in pensions to Spaniards who had served in the Philippines, and was taxed \$1,400,000 for the support of the church, in addition to the fees obtained by the clergy for marriages, indulgences, etc., amounting to a much greater sum.

When Capt.-Gen. Primo de Rivera made peace with the insurgents at the end of 1897, the latter, while still in possession of the mountain districts, agreed, on the advice of their leaders, to lay down their arms on these conditions: The expulsion or secularization of the religious orders and the abolition of their vetoes in civil affairs; a general amnesty for all rebels, with guarantees for their security from the vengeance of friars and parish priests; the reform of glaring abuses in the civil administration; freedom of the press to denounce official corruption and blackmailing; representation of the colony in the Spanish Cortes; and abolition of the system of secret deportation of political suspects. When the insurgent army was disarmed and disbanded and the leaders were out of the country the Governor General refused to execute any of the conditions, and the insurgents were exasperated to the point of renewing the rebellion at the first opportunity by the retaliatory proceedings of the friars and officials.

Hence Emilio Aguinaldo y Fami, their most prominent leader, declaring that Spain's violation of her agreement absolved him from his promise, decided to revive the insurrection, and placed himself in communication with the American consul general at Singapore, and with Commodore Dewey at Hong-Kong, after war broke out between the United States and Spain. He explained the nature of the co-operation that he could give, promised to maintain order among the Filipinos and to conduct military operations according to civilized methods, declared his ability to establish a responsible government in the Philippines on liberal principles, and declared that he was willing to accept for Luzon the same terms that the United States intended to give to Cuba. His aim was to found a republic in the Philippines, of which he expected to be president.

The American squadron departed for the Philippines on April 27, the day on which the Spanish gunboat "El Cano" made a prize of the American bark "Saranac," laden with coal from Newcastle, off Iloilo. Gov.-Gen. Basilio Augustin issued a proclamation in which he told the Philippine natives that the Americans had killed off the natives of their own country and taken possession of their lands, instead of preserving and civilizing them as Spain had civilized the Philippine natives, and that if the islanders now fell under the dominion of the Americans the fate of the American Indians was in

store for them. In another proclamation he warned the people that the North Americans were social excrescences from other nations, possessing neither cohesion nor history, and were sending a squadron manned by foreigners without instruction or discipline, with the ruffianly object of treating Filipinos as tribes refractory to civilization, taking possession of their property, kidnapping them to man American ships or to be exploited in agricultural and industrial labor, and substituting Protestantism for the Catholic religion. Martial law was proclaimed, summary death threatened to any one proposing submission, and every able-bodied man called to arms.

Although the Philippine rebellion was officially terminated in the previous year, when the leaders, after their military fortunes had begun to wane, agreed to disarm and disband their followers, and to leave the country for a bribe of \$700,000, as to the division of which they afterward fell to quarreling in Hong-Kong, still the insurgents had continued to make disturbances in a desultory way after their leaders left, and now they were ready to break out again in a general rising when war between the United States and Spain was threatened promising to give independence to Cuba. About the beginning of March, 1898, the rebellion started up afresh. The most serious rising was in the provinces of Zambales and Pangasinan. The natives considered that they had been deceived by Gen. Primo de Rivera, who had carried out none of the reforms promised in the peace treaty. Telegraph communication with Manila having been severed at Bolinao, the rebels annihilated the scattered Spanish detachments in Zambales. Troops that were sent overland were unable to break through the rebel intrenchments, and re-enforcements were dispatched, until 8,000 men, with artillery and four war vessels were on the scene of action, leaving Manila exposed to a rising which the former chiefs, who began to return from Hong-Kong, were ready to set in motion. Bands of insurgents appeared in Bulacan, Nueva Ecija, Pangasinan, and Tarlac, committing depredations and murders without the restraints which their old leaders had exercised over them. Risings took place also in the island of Panay, which the Spaniards recaptured after killing several hundred rebels, and in Zebu, where the Governor and the other officials were massacred. The regular Spanish troops in the Philippines numbered about 25,000 men. Gen. Primo de Rivera was recalled and replaced by Gen. Augustin after the rebels had attacked the military stations at Subig, Apalit, and Bautista, and captured a great many Mauser rifles with ammunition, to take the place of the long knives with which they fought the Spanish troops in the mountains of Zambales. Emilio Aguinaldo sent more arms from abroad.

Such was the situation when Commodore Dewey sailed to attack the Spaniards in Manila. While the American fleets in the Atlantic were believed to be strong enough to hold the sea against the Spaniards, there was danger that the numerous small war vessels that Spain had in the Philippine Islands, where the rebellion had been going on for two years, would be able to paralyze American commerce in Asiatic waters and the Pacific. Hence Commodore Dewey was ordered to go to Manila and capture or destroy the Spanish fleet. Sailing from Mirs Bay, and running only eight knots an hour in order to economize coal, Dewey's squadron arrived on April 30 in front of Subig Bay, which was explored in search of the enemy's ships. Not finding them there, Commodore Dewey, taking council with his officers, determined to steam boldly into Manila Bay. The fleet entered the bay at night with all lights out, regardless of the batteries on Corregidor Island,

which fired two ineffective shots, and of the mines known to have been placed in the harbor. The second shot was answered by a shell from the "Concord," aimed from the flash, which exploded among the Spanish gunners. Two sunken torpedoes were exploded ahead of the flagship when the fleet advanced on May 1 at early dawn against the Spanish vessels sighted at the other end of the bay, where the Spanish admiral hastily formed in battle line under the protection of the guns of the Cavité fort. The Spanish commander, Rear-Admiral Patricio Montojo y Pasaron, had abandoned his anchorage in Subig Bay, and taken up this defensive position, so that the fire of his ships could be supplemented by the shore batteries. The American ships, piloted by Lieut. Calkins, entered the harbor before they were expected, and passed the batteries and torpedo defenses of the entrance with such ease, and navigated the bay with such knowledge of the channels and shallows, that Admiral Montojo was taken by surprise. The Spanish ships had not enough steam up to manoeuvre properly. Three of them had broken machinery. As the American fleet advanced to the attack in line ahead, the Manila batteries opened fire with guns powerful enough to send shells over the vessels at a distance of five miles. The "Concord" replied with two shots. No more were fired, for fear of burning the city. When the column neared Cavité, the guns of the fortress and of the Spanish ships first opened fire. The Spaniards were drawn up in line of battle before Cavité, five cruisers and an armed transport backed and flanked by the forts during the entire engagement, while two torpedo boats remained inside of the mole until they stole out to attack the American flagship, and four gunboats fired from behind the same protection. Some of the American vessels engaged the fleet, while others directed their fire against the batteries. Commodore Dewey constantly manoeuvred his fleet to keep an advantageous position in the strong currents of the bay and to avoid giving the Spaniards a steady mark. The fleet consisted of the second-class cruisers "Olympia," "Baltimore," "Boston," and "Raleigh," the partially protected gunboat "Concord," the armed revenue cutter "Hugh McCulloch," and the small gunboat "Petrel," with the tenders "Zafiro" and "Nau-shon." The Spanish fleet was made up of the protected cruiser "Maria Cristina," flagship, the wooden cruiser "Castilla," the third-class cruisers "Isla de Cuba," "Isla de Luzon," "Don Antonio de Ulloa," and "Don Juan de Austria," and the gunboats "General Lezo" and "Marques del Duero." The "Velasco" was in the harbor, but was undergoing repairs, and her guns were mounted on earthworks ashore. There were four torpedo boats, two of which were sunk during the action, and two armed transports, the "Manila" and "Isla de Mindanao," one of which was sunk and the other captured. The torpedo boat "Barcelo," the "Correo," the "Leyte," and other light gunboats escaped by running up into the lagoons.

In total weight of fire the fleets were nearly equal, but the American cruisers mounted 8-inch guns in their main batteries, while the heaviest caliber on board the Spanish ships was 6 inches; moreover, the former were more modern, better engined, more heavily armored. This superiority was counterbalanced by the Spanish land batteries at Cavité, on Corregidor island, and in front of Manila. The Spanish gunnery was poor, the first shots passing over, the later ones falling short, though in the thick of the battle two shots pierced the upper works of the "Baltimore" and several shells burst above the ships or against their sides. One of the shots that struck the "Baltimore" exploded a case of ammunition, wounding eight men, the only

casualties on the American side. Commodore Dewey's flagship led the American column, which sailed back and forth as near the Spanish fleet, close to the shore batteries, as it was supposed that the deep draught of the "Olympia" would allow; then, at a distance of 4,000 yards, changing its course, the fleet ran parallel to the Spanish column and opened fire with guns of all calibers on the ships and forts. After twenty minutes the American ships stood out and used their heavy guns with terrible effect and then they closed in again. The Spaniards worked their guns gallantly, but the damage inflicted by the American shells caused their fire gradually to weaken. After four runs were made in front of the Spanish fleet with all guns working, the enemy's fleet was rendered useless. The "Maria Cristina" advanced out of the Spanish line to attack the American flagship, but in a few minutes she was rendered a helpless cripple. The fire of the "Olympia" was directed upon her until a shell, raking the Spanish flagship, exploded a magazine. Two torpedo boats that crept out in the smoke to attack the "Olympia" and the "Baltimore" were detected and disabled by the concentrated fire of the "Olympia's" secondary battery, though not until they had approached within 500 yards. The "Don Juan de Austria" was blown up. The "Castilla" also burst into flames, and then the "Isla de Cuba," to which the flag of Admiral Montojo had been transferred, caught fire and sank. The "Don Antonio de Ulloa," the only remaining ship outside of the breakwater, was fired by American shells and abandoned, after which the "Concord" and "Petrel" went across the bay and destroyed the "Mindanao" and the lighter craft which the Spanish crews had run upon the beach. The Spanish admiral's last signal was for the captains all to scuttle and abandon their ships. The American fleet withdrew to give the men a rest and breakfast after two hours of hard work, and because also Admiral Dewey did not know how completely he had disabled the Spanish ships and the ammunition on his ship was reported, though by mistake, to be running short. They returned later in the morning to silence, with a few well-directed shots from the "Baltimore" and from the "Concord," which ran up into close range, all the remaining batteries afloat and ashore; after which the gunboats went inside the breakwater and destroyed the remnant of the fleet, except those that the Spaniards scuttled or ran aground in the shallow lagoons. The "Petrel" ran close up to the shore to do this work. The water battery at Cavité was shelled until a magazine exploded, killing 40 soldiers. The commander of the fort raised a white flag, which was taken for a signal for surrender. When on the following day an American officer went ashore he was told that a truce was desired, so that women and children could be taken to a place of safety. The Spanish officer said he had no authority to surrender the arsenal, Admiral Montojo, his chief, having been wounded in the battle and conveyed to Manila. When Commodore Dewey threatened to renew the bombardment, the forts of Cavité and Corregidor surrendered finally, and the arsenal was delivered over at the same time, thus giving the Americans complete command of the bay.

This exploit of modern American armor clads engaging simultaneously a fleet of nearly equal apparent strength and shore batteries mounting heavy ordnance is a remarkable one in naval annals. On the American side not one ship was disabled nor a man killed, while the Spaniards lost 618 men killed and lost their entire fleet, and their fort, too, was shattered in spite of the obstinate courage of its defenders.

The Cruise of Cervera's Fleet.—Admiral Pasqual Cervera sailed from Cadiz on April 8 with the armored cruisers "Infanta Maria Teresa" and "Cristobal Colon." The number of vessels, their names, and their destination were alike shrouded in mystery, so that the unknown strength of the fleet, and the uncertainty as to where it would strike, created unrest and dread in the United States. A naval war board was appointed by the President, charged with the task of preparing plans for encompassing the destruction of Spain's fleet. On April 14 the two vessels were reported at St. Vincent, the port of the Portuguese Cape Verde Islands, where the torpedo-boat destroyers "Terror," "Furor," and "Pluton," with transports, had previously arrived. All five vessels busied themselves with coaling and preparations for a cruise while awaiting the arrival of the "Vizcaya" and "Almirante Oquendo," which had sailed from Puerto Rico to join the active squadron. They arrived on April 19, and on April 29 the whole fleet steamed away, taking a westerly course. The fast auxiliary cruisers of the American navy scoured the western Atlantic in search of the Spanish squadron; but no news came from any quarter regarding its movements, though vague rumors of its being sighted at different points off the American coast caused consternation in the seaboard cities. The failure to receive any intelligence of the movements of the hostile fleet from consuls, spies, cables, passing steamers, or news agencies stationed all over the world, or from the scouts of the fleet, was a surprise, not only to the American Government, but to all naval powers, as it was supposed that the days were past when fleets could navigate the seas unobserved and strike in unexpected quarters.

On May 11 the squadron arrived off Martinique, near which port the bunkers were partly refilled from coaling steamers waiting there. The voyage of 2,200 miles was made at a speed below 10 knots. The "Terror" was left at St. Pierre for repairs. The rest of the squadron was reported as hull down to the west by Capt. Cotton of the "Harvard," whose dispatch was delayed a day in the telegraph office at St. Pierre. While Admiral Sampson with a fleet detached from blockade duty was watching San Juan, Puerto Rico, and scouts were patrolling the channels leading to Cuban ports, Cervera took a straight course for Curaçao. His fleet was first sighted on May 14 off the Venezuelan coast, where it took on coal from colliers, two of the cruisers entering the Dutch port of Willemsted. After that came another time of uncertainty for the American naval authorities. The fleet sailed for Santiago de Cuba and succeeded in making that port without encountering either of the American fleets or being observed by the scouts cruising in the Caribbean. Spanish ships were reported to have been seen near the Jamaican coast, and after a collier had been caught by the "St. Paul" attempting to enter the bay of Santiago it was surmised that this harbor was the destination of the Spanish fleet. On May 19 Cervera entered the bottle-shaped harbor of Santiago de Cuba, which is only a cable's length wide at the entrance, and was protected by the old Morro and some freshly erected batteries and earthworks, with a triple line of sunken torpedoes, while within was deep water and good anchorage, where the fleet could securely coal and prepare for another cruise. The slow passage over the Atlantic, and the secret movements in the Caribbean, although baffling to the American strategists and a cause of doubts and dismay to the public, placed the Spanish forces more and more at a disadvantage compared with the Americans, who were now fully prepared both to cover the coast and to strike at the enemy wherever he might be found. When at last the

fleet of the wily Spaniard was securely bottled up in Santiago harbor, all questions and fears of the American public were removed. The condition of the Spanish ships as to speed, armament, and seaworthiness was far from what was supposed, and the cruise in tropical seas had caused the fouling of their bottoms and further reduced their fighting efficiency. Even at their nominal strength, they were inferior to either of the American squadrons, having only 8 heavy guns, while Admiral Sampson's squadron and the flying squadron each had 22; having altogether only 54 guns in the main battery, with a muzzle energy of 282,392 pounds, while in Sampson's squadron there were 68 guns, with a total muzzle energy of 562,958 pounds, and in Schley's 60 guns, with a muzzle energy of 540,622 pounds. In speed and quickness in manœuvring the Spanish cruisers were, from their build and design, superior to any of the American ships; but their condition, and the defects in their machinery, the impossibility of their obtaining sufficient coal so far away from their naval base, and the mechanical inefficiency of their engineers, rendered this superiority of no avail, just as lack of practice and training in gunnery rendered the best of the Spanish guns almost useless when contending with the scientific marksmanship of American gunners.

Measures of Naval Defense.—The Navy Department at Washington was guided in its preparations and defensive measures by the advice of a council of experts constituted for the emergency, known as the Board of Strategy, but officially designated the Naval War Board. It consisted in the beginning of Assistant Secretary Theodore Roosevelt, Capt. Arent S. Crowninshield, chief of the Bureau of Navigation, and Capt. Albert S. Barker, then naval aid to Secretary Long. After the retirement of Col. Roosevelt, and the assignment of Capt. Barker to the command of the "Newark," the members were Capt. Crowninshield, Rear-Admiral Montgomery Sicard, and Capt. A. T. Mahan. This board organized the information service. It received reports in cipher from the United States consuls and diplomatic officers in all countries, and was thus informed of the military and political situation in Europe at all times. It also had its secret agents everywhere, even in the naval ports and dockyards of Spain. Its plan of naval defense for the Atlantic coast of the United States served at least to alleviate the trepidation felt in the seaboard cities when the Spaniards succeeded in concealing the movements of their vessels at sea, causing owners of property to fear a sudden descent of the fast cruisers on one or another of the exposed towns and its demolition by bombardment. A coast-patrol system was established, with Capt. Bartlett J. Cromwell at its head. A large number of vessels of the auxiliary navy were employed to create four lines of observation and three separate lines of defense. Some of the strongest vessels were stationed at important points, as the "Katahdin" off Provincetown, Mass., the "Columbia" off the Maine coast, and two monitors at Boston. Soon after the Spanish fleet left Cape Verde the converted ocean liners "St. Paul," "St. Louis," "Harvard," and "Yale" were sent out to sea, each having a stated line to patrol hundreds of miles from the coast. A second patrol fleet, under the command of Commodore John A. Howell, consisted of the swift steamers "Yosemite," "Dixie," "Prairie," "Yankee," and "San Francisco," which covered the New England coast and had orders to steam to the nearest cable station on discovering the approach of the enemy, and notify the authorities at Washington, so as to enable them to concentrate all the ships along the coast at any threatened point.

A line still nearer to the shore was guarded by what was called the mosquito fleet, commanded by Rear-Admiral Henry Erben, and consisting of more than 40 ships of all sizes, which watched along the whole coast line from Maine to Texas. The Signal Corps attended to the transmission of intelligence from the patrol fleets to the Naval Department at Washington. About 60 signal stations along the coast were fitted out with telegraph and telephone instruments and elaborate signaling apparatus.

Bombardment of San Juan.—Admiral Sampson withdrew the battle ships "Iowa" and "Indiana" and the cruisers "New York" and "Detroit" from the Cuban blockade on May 1, and went to Key West to prepare for a cruise in search of the Cape Verd squadron. The United States fleet left Key West on May 3 with orders to intercept and destroy the Spanish squadron. They proceeded slowly eastward, having taken in tow the monitors "Terror" and "Amphitrite," which joined the fleet with the torpedo boat "Porter" off Cardenas. The speed was not more than 5 knots. The ocean steamships "Harvard," "Yale," "St. Louis," and "St. Paul" were scouting in the Caribbean Sea, but found no traces there of the Spanish squadron. Some anxiety was felt for the safety of the battle ship "Oregon," which had reached Bahia, accompanied by the gun vessel "Marietta" and the unarmored "Nichero," purchased from Brazil. At Cape Haytien Admiral Sampson heard a report that Spanish war ships had been seen heading for Porto Rico. Early in the morning of May 12 the American ships approached San Juan and made ready for an attack on the forts. The battle was so planned that the vessels would be in position to meet the Spanish war ships, should these emerge from the harbor. The attacking column was formed of the "Iowa," flagship, the "Indiana," "New York," "Amphitrite," and "Terror." The "Detroit" went ahead to sound until 10 fathoms of water was reached, and, after marking the position, to remain on the lookout for torpedo-boat destroyers. The "Wampatuck" sounded for 10 fathoms at the other end of the course. The "Montgomery" took station opposite the Canuelo fort, with orders to silence the guns if they opened fire. The "Porter" watched near the harbor's mouth, ready to torpedo the enemy's ships if they came out. If Cervera's squadron were not in the harbor (as was the case) it was Admiral Sampson's purpose to attack the shore batteries in order to test the effectiveness of his guns against land fortifications, and to cripple these as much as possible, so as to render them less capable of supporting the Spanish fleet, but chiefly to accustom his men to battle and test their marksmanship in action.

The attack was begun at daylight and lasted about three hours, resulting in considerable damage to the batteries, and incidentally to the adjacent portion of the city. The attack was made on the shore battery of 6-inch guns and the less effective Morro battery on the eastern arm of the harbor. The fleet steamed past the forts in elliptical formation, the "Iowa," which led the column, beginning the attack with a 12-inch shell, followed by a broadside. The "Detroit" approached within 1,000 yards, and then withdrew with the "Montgomery" after passing the fortifications once, their guns being too small to do any execution. The "Wampatuck" and "Porter" also stayed out of range. The rest of the fleet sailed by three times, the end of the course being marked by an anchored boat of the tug "Wampatuck." The thick smoke from the common brown powder used on the American ships interfered, as in all other engagements of the war, with the aim of the gunners. Nevertheless, the fortifications were hit frequently, and structures

within were set on fire several times. The "Terror" not seeing the signal, continued firing for half an hour after the rest of the ships withdrew. The Spanish gunners were frequently driven away by the shower of large and small shot that fell inside of the fortifications, but always returned and worked their guns industriously though unskillfully. Nearly all their shots went wide of the mark, and the incessant fire had no material effect on the American ships. An 8-inch shell went through the superstructure of the "Iowa," scattering splinters that wounded 3 men. This vessel was hit eight times, but her armor was not pierced. On the "New York" 1 seaman was killed and 5 were wounded, and on the "Amphitrite" a gunner's mate was killed. The Spanish commander reported 1 officer, 3 soldiers, and 1 civilian killed, and 13 soldiers and 30 civilians wounded. The "Porter" crept up during the engagement close under a bluff from which a masked battery suddenly poured a plunging fire, from which she escaped unharmed. The ships forming the battle line, rolling in a heavy sea, manœuvred at too long range to do much execution. Most of their shells fell in the harbor, Morro Castle and the fortress of San Cristobal were damaged in places, and shells struck the barracks as well as the cathedral, the palace, the town hall, the seminary, and private houses in the city. The American fleet discharged only 400 shots, ceasing then because the men were becoming exhausted by their exertions in the torrid heat. The Spaniards fired a great many more shots.

After the action Admiral Sampson returned with his squadron to Key West, reuniting the whole fighting force of the American navy, for Commodore Schley's ships were at that rendezvous on the alert for any hostile movement of the enemy. The "Terror" made a dash out of the harbor a month later, with the object of sinking the auxiliary cruiser "St. Paul," which was steaming along the coast on observation duty. Capt. Sigsbee saw the destroyer in time, and turned his rapid-fire guns upon her, killing an officer and 2 men and damaging the vessel so badly that only with difficulty did she manage to make her way back into port.

Blockade of the Spanish Fleet in Santiago.—Commodore Schley's flying squadron left Hampton Roads for Key West on receipt of the news that the Spaniards were off Martinique, and remained at Key West guarding the coast and covering the blockading fleet of small vessels against a possible attack, while Admiral Sampson was endeavoring to intercept the Spaniards at the entrance of the Caribbean. Schley's squadron was still at Key West when Sampson returned from the fruitless bombardment of San Juan de Puerto Rico, but after Cervera's fleet left the vicinity of Curaçao it hurriedly took on coal and departed on May 20 to blockade Cienfuegos with the "Brooklyn," "Texas," "Massachusetts," "Iowa," and "Scorpion," while Admiral Sampson was instructed to guard the entrance of Havana harbor. In consequence of information arriving at the Naval Department from the Cubans that the Spanish ships were at Santiago, Commodore Schley was ordered on May 21 to proceed cautiously thither, if satisfied that they were not at Cienfuegos. When the "Marblehead" arrived on May 24 Commander McCalla established communications with the Cubans on shore, and thus obtained definite knowledge that the Spanish fleet was not at Cienfuegos. Commodore Schley therefore sailed for Santiago. The fleet steamed very slowly, and after arriving off that port on May 26 and receiving the reports of the commanders of the scouts, Commodore Schley, rendered anxious for his fleet by the state of the weather and the shortness of coal on his ships, having less than two

days' supply on the "Brooklyn," gave orders to return to Key West without ascertaining definitely that the Spanish fleet was in the bay. Meeting the "Harvard" on May 27, he received a dispatch saying that the Department, having information indicating that the Spanish squadron was still at Santiago, looked to him to ascertain whether this was the fact, and to see that the enemy, if in that harbor, did not leave without a decisive action. Admiral Schley, replying that he could not obey these orders, being forced to proceed for coal to Key West, continued on his westward course until the sea became calmer, enabling the ships to take on coal from the colliers on May 28; then he turned and before night had retraced the 48 miles and arrived 12 miles off Santiago. In the morning, drawing nearer shore, the officers of the fleet sighted a vessel that they made out to be the "Cristobal

a tour of 72 miles on shore, passing round the harbor and positively identifying the ships of Cervera's command. Admiral Sampson, joining the blockading fleet on June 1, decided to stop the entrance to the harbor and intrusted this work to Assistant Naval Constructor Richmond P. Hobson. Many officers and seamen by hundreds from all the vessels offered themselves for the forlorn hope. Lieut. Hobson, who suggested the details of the plan, selected for the crew Daniel Montague, George Charette, J. C. Murphy, John P. Phillips, Oscar Deignan, and John Kelly, while another seaman slipped on board and took part in the expedition without permission. With these seven men from the fleet Hobson, before daylight on June 3, entered the mouth of the harbor on the loaded coaling steamer "Merrimac," which was practically disabled by defects in her machinery, passing for



MORRO CASTLE, SANTIAGO. (PHOTOGRAPH TAKEN THE DAY OUR FLAG WAS HOISTED.)

Colon" lying near the entrance, later two vessels of the "Vizcaya" class, and in the afternoon one of the torpedo boats.

The American squadron, on May 31, formed in battle line outside, the smaller vessels scouting close inshore, and engaged the shore batteries and the ships lying near the entrance of the harbor, which returned the fire with 4 shots to 1, firing about 300 shells altogether, none of which hit the American ships. The earthworks were plowed repeatedly by American shells, and the flagship "Colon" was twice hit by the guns of the "Massachusetts." This reconnaissance was made with the heavy guns of the "Massachusetts," "Iowa," and "New Orleans" for the purpose of developing the fortifications as well as the presence of the Spanish ships, of which Commodore Schley was satisfied from the shells that were fired at random from the bay inside. However, it did not afford proof that Cervera's whole fleet was bottled up, and this fact remained in doubt until Lieut. Victor Blue, on June 11, made

twenty minutes through a shower of shot and shell from the Morro and other batteries and from the Spanish vessels, and at the designated point, where the channel was narrowest, fired the torpedoes fixed in the hull of the "Merrimac" while he and his companions made off in a small boat. They were picked up by a boat from the Spanish flagship, being unable in the daylight to run the gantlet of the batteries and reach the launch on which Cadet Joseph W. Powell waited until he had to scud from under the guns of the batteries after day broke. The sunken collier failed to close the channel entirely because a shot had taken away her rudder, and this had made it impossible for Hobson to swing the vessel round athwart the channel before sinking her. Admiral Cervera was so struck with the bravery of Lieut. Hobson and his men that he sent Capt. Oviedo under a flag of truce to inform Admiral Sampson that they were all alive and well cared for, although two were wounded by the shells that burst around them. The main force of the

American navy was thenceforth employed in the difficult task of confining Admiral Cervera's squadron in Santiago Bay, which required elaborate precautions and constant vigilance. Three of the principal vessels took turns in the dangerous duty of guarding the entrance at night within range of the shore batteries and illuminating with their search lights the entrance and the bay, rendering it no less impossible for the Spaniards to get to sea unobserved under cover of darkness than in the light of day.

Operations of the Blockading Fleet.—While Admiral Sampson departed with the strongest and fastest vessels of the fleet to intercept Cervera's fleet, Commodore John C. Watson and Commodore George C. Remey were left in command of the two divisions of the blockading squadron. The force that was left on blockade duty consisted of the monitor "Miantonomoh," 6 unarmored cruisers, 10 torpedo boats, and a large number of improvised war vessels. The whole blockading fleet combined would be incapable of resisting only a part of the Spanish fleet, but it was sufficiently strong and numerous to maintain an effective blockade and to cope with the Spanish naval force stationed in the Cuban harbors.

On May 11 the "Wilmington" engaged the fortifications at Cardenas and rescued the "Winslow" and "Hudson," which had been betrayed into running under the guns of a masked battery. The torpedo boat "Winslow," as well as other vessels of the fleet, had before challenged the three Spanish gunboats lying in the harbor, but could not draw them away from the protection of the land batteries. When the cruiser "Wilmington" arrived and took station at a range of 2,500 yards, the "Winslow" and "Hudson" went into the inner harbor to attack the Spanish vessels. The Americans had not counted on a strong battery close to the water's edge, which suddenly opened fire on the small craft. The first shell damaged the steering gear of the "Winslow" and another burst inside, wrecking her boiler, wounding Lieut. John B. Bernadou, the commander, and killing or mortally wounding Ensign Worth Bagley and four men. The "Wilmington" moved up to within 1,800 yards, till her keel almost touched bottom, sending 376 shells into the batteries and the town, and finally silencing the guns. Meanwhile, Lieut. Frank H. Newcomb ran the "Hudson" alongside of the "Winslow," and amid a hail of shots towed her out of danger.

On the same day the "Marblehead," "Nashville," and "Windom" were taken into the bay at Cienfuegos by Commander Bowman H. McCalla, and Lieut. Cameron Winslow and Lieut. Anderson explored in launches for the telegraph cables, to cut them, while a party attempted to land from the "Marblehead" to sever the cables at the shore end. When Commander McCalla called for volunteers for the dangerous work thrice the desired number offered themselves. The batteries drove off the landing party, killing 2 men and wounding 7 before the vessels moved up into close range and silenced them. The parties in the boats dragged for the cables and grappled and cut two of the three, under a rain of bullets and a constant fire of Maxims and 1-pounders, which killed or fatally wounded 3 and wounded Lieut. Winslow and 6 men. As soon as one man was hit another jumped to take his place. Meanwhile the guns of the vessels fired on the fortifications until they were smashed, sending in more than 600 shells. The Spanish losses were reported to be 2 killed and 14 wounded. The cables were afterward repaired by the Spaniards, and communication with Havana was kept open.

Attempts were made to cut the far more im-

portant cables running from Santiago at Guantamano, which would have isolated Cuba from Spain. There were two British lines running to Jamaica, and a French line to Martinique. The United States Government was unwilling to cut the cables out at sea, since there was no precedent for such an act, which might be construed as a violation of the rights of neutrals. But within the territorial three-mile limit, it was assumed, the cutting of cables was a legitimate exercise of belligerent rights, the United States having expressly reserved freedom of action in this regard in the cable convention of 1884. The first essay was made near Santiago on May 11 by the cruiser "St. Louis" and the tug "Wampatuck." A further attempt was made by the same vessels on May 18. The American war ships, as they approached the mouth of Guantamano harbor, flew the Spanish flag, an act that Spanish orators denounced as Yankee treachery, although the United States colors were raised, according to the usages of war, before the action was begun. The heavy fire from the Spanish batteries and the gunboat in the harbor compelled the tug "Wampatuck" to retire after grappling one of the cables within 800 yards of the shore. One of the cables leading to Kingston was cut by the "St. Louis" at Santiago after both vessels had been under fire nearly an hour.

Gen. Blanco at Havana, on May 14, attempted by a ruse to draw the vessels then blockading the mouth of the harbor within range of the heavy guns on the shore. His purpose was also to draw the American naval forces to that point in order that Admiral Cervera might carry out his plans unobserved and in safety. The gunboat "Vicksburg" and the converted revenue cutter "Morrill" had a week before been decoyed by a fishing smack under the Krupp guns of Santa Clara, and it was only owing to the indifferent gunnery that they managed to get out of range without being sunk. On this latter occasion the two principal Spanish war vessels at Havana, the "Conde de Venadito" and "Nueva España," suddenly emerged from the harbor and ran along the shore. The "Mayflower," "Vicksburg," "Annapolis," "Wasp," "Tecumseh," and "Osceola" formed a column and moved obliquely in upon the Spanish vessels to prevent their escape, whereupon the Spaniards doubled on their course, and firing steadily in reply to the American guns put back into port, while the pursuing vessels stopped at a safe distance offshore. The diversion of the Spanish commander caused a concentration of eight more of the blockading vessels at Havana.

On May 24 some of the American ships exchanged shots with the fortress of San Hilario guarding the entrance to the port of Nuevitas. Other vessels reconnoitered the entrance to Cardenas Bay to ascertain whether torpedoes had been laid. An exchange of prisoners—Col. Cortijo and an army surgeon for two American newspaper correspondents named Thrall and Jones—was effected in Havana Bay on May 27.

On May 29 the "St. Paul" cut the cables off Cape Maysi; but Gen. Blanco's telegraphic communications with Spain were not entirely severed until a completely unfitted cable ship, carrying war cables and cable gear for establishing communications with the United States, as well as instruments for grappling and cutting the Spanish cables, was placed in Cuban waters by the Signal Service.

The blockade, while effective enough to cause a scarcity of food that was felt by all classes, and the direst famine among the poor, did not prevent the entrance of many blockade runners of various nationalities. Before it was well established the Spanish troopship "Alfonso XII," leaving St. Thomas on April 21, landed 800 troops with cannon and

other warlike stores in Cienfuegos and slipped away again to Puerto Rico. Havana in the beginning of May had supplies sufficient to last three months. The poorer class were better off than before the war, for free kitchens were instituted from which 35,000 rations were distributed daily. The transatlantic steamer "Montserrat" slipped into Cienfuegos with 100 guns, 15,000 rifles, a large quantity of ammunition, stores of provisions, and 1,000 soldiers, and made one or more trips to Batabano with cargoes of foodstuffs to be conveyed to Havana by rail. Many schooners from Mexico got provisions into Havana by this route. French and English steamers were allowed to ply in the tobacco trade at Sagua la Grande, on the north coast. The Autonomist Government, late in May, decreed that blockade runners bringing provisions and coal should be allowed to load with sugar for neutral ports, and that their cargoes should have free entry at all Cuban ports.

On June 28 the President proclaimed a blockade of all ports on the south side of Cuba, from Cape Frances to Cape Cruz, in order to make it more difficult to bring supplies into Havana. At the same time San Juan in Puerto Rico was declared a blockaded port.

Operations in the Philippines.—After the destruction of the Spanish fleet and the surrender of the forts, Admiral Dewey demanded the complete surrender of the city of Manila, the fortifications, munitions, and stores. When Gen. Augustin, the Governor, refused to surrender, Dewey threatened to bombard the forts and the citadel, but having no military force at hand to garrison the place and fearing the revengeful action of the insurgents against the Spaniards, he refrained at the request of the foreign consuls and established a close blockade, while the insurgents hemmed in Manila from the land side. He reported that he could take the capital at any moment. He occupied Cavité and destroyed the 6 batteries at the entrance of the bay. The losses of the Spaniards on land included the navy yard, with its equipments and stores and 9 batteries. At Cavité the Americans established hospitals, where 250 Spanish, wounded and sick were cared for and protected. On May 12 the Spanish gunboat "Callao" was captured while attempting to run the blockade. Communication with the outside world was interrupted after the Americans acquired possession of the bay; for Commodore Dewey, after Gen. Augustin had refused to allow him to use the telegraph, cut the cable.

The number of Spanish troops fit for service then in the Philippines was not more than 7,000. There were 30,000 or more native troops, on whose loyalty no reliance could be placed. No sooner had the rebel flag been again unfurled than whole regiments deserted to the enemy with their arms and accoutrements, after killing the Spanish officers. Gen. Emilio Aguinaldo arrived on May 18, having been allowed by Admiral Dewey to take passage from Hong-Kong on the dispatch boat "McCulloch." When Admiral Dewey took Cavité arsenal the rebels held all the heights within ten miles around, ready to close in upon Manila. Their strength rapidly increased, and even in the city the Spaniards captured a conclave of 150 conspirators, all of whom were put to death. Gen. Aguinaldo establishing his headquarters in the town of Cavité, gradually massed a force exceeding 30,000. Deserters from the Spanish army and bold parties which, armed only with knives, overcame Spanish detachments by surprise, supplied the rebels with a number of Mauser rifles, and Remingtons were smuggled in on a steamer. Toward the end of May the rebels crossed the bay in boats and, fighting from the cover of the bush, attacked the Spanish positions

on the Zapote river, taking 418 prisoners. On May 30 the Filipinos captured a powder magazine and 4 small field guns, taking 250 prisoners. Several scattered detachments in Cavité province were overcome before re-enforcements were sent from Manila. When the Spanish column advanced, on May 30, along a narrow road flanked by impassable swamps, Gen. Tomas Mascado, the Filipino commander, posted 500 men at a bridge, where 4 field guns were concealed. The Spaniards were checked and fell back in disorder when these guns were suddenly unmasked, accompanied by a withering fire of musketry. They rallied and charged, but were again repelled. The rebels afterward drove the Spaniards from Old Cavité and captured the town of Imus, where 4 Krupp field pieces fell into their hands. Their own cannon consisted of boiler pipes wound with wire. After the Spanish garrison in Old Cavité surrendered, on June 8, the rebels began a general advance upon Manila.

In the Visayas and Mindanao islands the rebels of Aguinaldo's faction were less successful than in Luzon. In Panay, where rebellion first broke out, the Spanish were victorious, storming on May 3 an intrenched position held by 4,000 rebels, of whom 172 were slain in the battle and 500 more during the retreat. In Cebu the Spaniards slew great numbers of both sexes after overcoming the rebellion. In Luzon, however, the principal island, most of the detachments of Spanish troops surrendered for lack of food, and all officials, priests, and planters who escaped with their lives took refuge in Cavité. In Cavité province the rebels took nearly 2,000 prisoners, adding as many modern rifles to their supply. Aguinaldo summoned Capt. Gen. Augustin to surrender, but the Spanish commander refused to treat on any terms with the rebel chieftain, though provisions were becoming very scarce, and the troops, weakened by hunger and disease, had difficulty in maintaining their position inside of the line of blockhouses. The Chinese in Manila had requested the British consul to take them under his protection, but the Spanish authorities would not acquiesce. In response to an application of German firms, the German Government ordered 4 war ships to proceed to Manila Bay. As a means of conciliating the natives, the Captain General instituted a consultative assembly of 15 members of mixed and native blood, having for its president Señor Peterno, who had achieved the peace with the rebel leaders in the previous December. The Archbishop of Manila, in a pastoral letter, told the natives that in the event of American victory altars would be desecrated, churches converted into Protestant chapels, vice inculcated instead of pure morality, and the children turned from the true faith. The rebel leaders on their arrival promised Admiral Dewey to regulate their conduct according to the principles of humanity. The Spanish gunboat "Leyte," pressed by insurgents, came out from its place of concealment and surrendered to Rear-Admiral Dewey on June 20.

Occupation of the Ladrões.—Capt. Glass, of the "Charleston," received sealed orders at Honolulu to call at the island of Guam and destroy the Spanish fortifications and ships there. He arrived off the island on June 20, and, leaving his convoy—the transports "Peking," "Australia," and "Sydney"—outside, he steamed into the harbor of San Luis de Apra and fired 13 shells at the abandoned fort—which the Spanish officers mistook for a salute, being ignorant of the existence of a state of war. Spanish officers who came aboard were sent to notify the Governor to surrender himself and his military forces, and on his declining on the ground that Spanish law forbade him to step aboard a foreign war ship, a landing party was got ready. On

June 21 the Governor, Juan Moreno, came down to the seaport of Piti, and, after a parley, formally surrendered Guam and all the Ladrone group, with his munitions and troops, which marched down from Agana to Piti for disarmament. The Governor, who made a formal protest, and the Spanish garrison of 60 soldiers were carried off as prisoners of war on the ships as they continued their voyage to Manila. The 200 native soldiers were released on parole, and a small garrison of American troops was left in occupation.

The Santiago Campaign.—The strategic plan proposed by Gen. Miles was to arm the Cubans, and thus help them to harass the enemy and to fit out an expedition, ostensibly for the invasion of Cuba, but with secret orders to proceed to Puerto Rico and seize that island—the gate of the Antilles, and for the Spaniards the key to the military situation. After this was in American possession a large force of cavalry could be landed in the center of Cuba, cutting the Spanish forces in two, sweeping the Spaniards from the provincial towns in co-operation with the Cubans, and at the same time relieving the starving population. After the rainy season was over, a powerful army, well organized, perfected in drill and discipline, seasoned to camp and service, would be able to move westward, and Havana could be reduced by a combined land and sea attack. The bottling up of Cervera's fleet created a new situation, changing all the plans. When it was known that Cervera's ships were sealed up in Santiago harbor, and after Hobson's exploit was supposed to have rendered their escape almost impossible, even though a hurricane should disperse the blockading fleet, this eastern end of Cuba, where the insurgents were in greatest force and the Spaniards weakest and isolated from their base for lack of land communications, was chosen as the field of operations for the first military expedition, which could co-operate with the fleet in reducing the city and fortifications, defended by about 6,000 Spanish troops, and in capturing or destroying Cervera's squadron. This being accomplished, the fleet could operate without danger against any of the coast defenses, or cover a landing of troops at any insufficiently fortified point of the Cuban seaboard. Guantanamo Bay was seized for a naval station, a sheltered retreat where the vessels could recalc and a base of supplies, on June 10, by Capt. McCalla with the "Marblehead," "Yankee," and "St. Louis." The cables connecting Santiago with Mole St. Nicholas were severed. The bay afforded a safe harbor, where the fleet could coal and store ships and torpedo boats could lie in all kinds of weather, as well as troop transports when they should arrive. The town of Caimanera, on the inner bay, was garrisoned by 3,000 Spanish troops and protected by a fort and several gunboats. When the "Marblehead" and "Yankee" opened fire at 800 yards, driving the Spaniards out of the blockhouse and village at the mouth of the outer bay, the "Alfonso Pinzon" appeared at the entrance of the inner channel and fired her 5-inch guns with surprising accuracy at a range of 4,000 yards. The American boats replied with guns of the same size, and quickly got the range, but the Spanish commander refused to retire until the "Marblehead" made ready to go in after him, when he took position behind the fort and continued firing. Lieut.-Col. R. W. Huntington landed a battalion of marines, 600 strong, from the troopship "Panther" and the men-of-war, and encamped on the hill at the entrance of the outer bay. In the evening Spanish infantry, which had fled in such panic to the mountains that the Americans had no thought of their returning, advanced under cover of the thick bush and attacked the pickets.

In the following night the guerrillas showed themselves in greater force and charged up to the edge of the camp, killing Surgeon John Blair Gibbs and two marines. The attacks were continued until morning, when the assailants were driven away by 12-inch shells from the field guns. The earthworks that the Spaniards had left were strengthened and enlarged during the day. The guerrillas kept up their harassing fire into the camp, now from one direction and now from another, giving the Americans no rest for one more night; but on the third their tactics were frustrated by a body of Cubans who had come up with Col. La Borda and were put on skirmish duty. On June 14 a detachment of marines advanced with the Cubans through the hills against the camp of the Spaniards, and with one steady onset put them to flight. The total losses of the Americans from the beginning were 6 killed and 3 wounded, while the Spanish dead numbered more than 40.

The cable communications between Santiago and Havana and between Havana and Europe were not completely severed until Gen. Greely, chief of the Signal Corps of the army, had fitted out a cable ship, on which Lieut.-Col. James Allen and Capt. Martin Hellen grappled and cut the lines at the east end of Cuba and at Guantanamo within the three-mile limit.

Major-Gen. William R. Shafter was placed in command of the expedition that was organized at Tampa, consisting of the Fifth Army Corps. He received instructions to capture the garrison at Santiago and assist the navy in capturing the fleet. The army of invasion sailed from Tampa on June 14 on a fleet of 37 transports conveyed by the "Indiana," "Castine," "Helena," "Annapolis," "Bancroft," "Morrill," and "Hornet," joined at Tortugas by the "Dupont," "Manning," "Osceola," "Wasp," "Wampatuck," and "Ericsson," and off Puerto Principe by the "Montgomery" and "Porter." On June 21 the fleet arrived off Santiago. Gen. Shafter and Admiral Sampson went ashore to consult with Gen. Garcia, the Cuban commander, at his camp at Acerradero. The Spanish infantry, cavalry, and guerrilla forces stretched out for 50 miles from Guantanamo to Cabañas, ready to concentrate at the point of attack, but starving and harassed inland by the insurgents. They had a total strength of about 40,000. Garcia raised a force of 3,500 Cubans, ill fed, lacking clothing, and only partly armed, chiefly with the munitions brought by the "Florida," to co-operate with the American troops. There were 1,000 more performing guerrilla service with the marines at Guantanamo. Gen. Shafter's army numbered 819 officers and 15,058 men, to which 8,000 re-enforcements were sent when it was known that Gen. Blanco had ordered the troops of Gen. Pando to re-enforce Gen. Linares at Santiago. The expedition consisted of the First, Second, Third, Sixth, Seventh, Eighth, Ninth, Tenth, Twelfth, Thirteenth, Sixteenth, Seventeenth, Twentieth, Twenty-first, Twenty-second, and Twenty-fourth Regular Infantry, the Seventy-first New York Volunteers, and the Second Massachusetts; two dismounted squadrons each, of four troops, from the First, Third, Sixth, Ninth, and Tenth Regular Cavalry and two from the First Volunteer Cavalry, known as the Rough Riders; one mounted squadron of the Second Regular Cavalry; two light batteries each from the First and Second Artillery, and two siege batteries of the Fourth; and two companies of engineers. Most of the cavalry was dismounted because of lack of transportation for the animals and because the country about Santiago was unfavorable for cavalry operations. The expedition was ready to sail on June 7, but, on account of an unfounded rumor of a Spanish war vessel having

been seen, the order to start was countermanded and the sailing delayed for a week. When Gen. Shafter accepted Gen. Garcia's offer of the services of his troops he told the Cuban general that he could exercise no military control over him except such as he would concede, but so long as these troops served under his orders they would be furnished with rations and ammunition. Some sharpshooters and machine guns and mountain artillery were landed to co-operate with the Cubans in clearing the hills, but the forces did not begin to land until June 22, when 6,000 men were put ashore at Daiquiri. Difficult though the landing was with defective transport facilities, the Spaniards, held in check by Gen. Garcia's Cubans and the shelling of the hills by the vessels, and deceived by Admiral Sampson's feint of bombarding Juragua, made no serious attempt to oppose it. On June 23 a like number were debarked, and Major-Gen. Henry W. Lawton's division advanced to Siboney, marching on the next

there and throw up intrenchments. Gen. Shafter was eager to advance with all haste upon Santiago, not appreciating the time that it would take to debark his command and supplies for it and transport sufficient stores over the difficult roads. His resolve to give battle without delay was prompted by anxiety lest a storm should drive the store ships out to sea, for not for two weeks was it possible to place on shore provisions for more than three days ahead; also by the fear that Gen. Pando would soon arrive from Manzanillo with re-enforcements for the Spanish garrison. He intended to push on with only a few wagons and pack trains. The rest of the troops were landed at Siboney. Before the night of June 24 all the troops were on land. Gen. Lawton was ordered to take up a strong defensive position on the road between Siboney and Santiago, with Gen. John C. Bates's brigade supporting him, while Gen. Kent's division was to be held near Siboney, and Gen. Wheeler's cavalry division



Copyright, 1898, by W. R. Hearst.

CUBAN TROOPS MARCHING INTO SIBONEY.

day to give place to Major-Gen. Jacob Ford Kent's division. While Gen. Shafter remained on board to direct the disembarkation, Major-Gen. Joseph Wheeler conducted operations on shore. Siboney was shelled by the naval force, and the Spanish who were driven out intrenched themselves two and a half miles out on the road to Santiago. Gen. Lawton marched his troops down from Daiquiri to take possession of Siboney, bivouacking overnight on the road and entering the town the next morning. The enemy had returned to contest the place and had prepared an ambush for the advanced guard, but this was discovered and the Spaniards beat a hasty retreat, pursued by the Cubans under Gen. Castillo. Gen. Lawton's orders were to send a force to occupy the place where the railroad from the Juragua iron mines crosses the road into Santiago, and if this were accomplished without opposition to encamp

was to be in the rear on the road from Daiquiri to Siboney. The commanding general had altered his plan and now intended the troops to remain in a defensible position until the transportation service could be organized. Gen. Wheeler, however, with Gen. S. M. B. Young's brigade, pushed forward during the night of June 23 until he found himself the next morning in advance of the rest of the troops. Learning from Cuban scouts that the enemy were posted in force at Las Guasimas, where two roads leading to Santiago unite, he determined to attack their position. Shortly after the regular cavalry under Gen. Young had come in contact with the enemy, the Rough Riders, marching along the other road, were checked and somewhat confused by a sudden fusillade with smokeless powder, and fell back, but rallied directly. On the other flank the colored cavalry stormed a ridge with noble cour-

age and the Spaniards abandoned their intrenchments and fell back a mile or more from their original position. Gen. Wheeler had sent for reinforcements, but before Gen. Chaffee came up with the Second Infantry, the three regiments of dismounted cavalry had completely routed the enemy. The American forces engaged numbered 964 men. The American losses were Capt. Allyn K. Capron, Jr., and 14 men killed and 6 officers and 46 men wounded; the Spanish, whose strength was officially reported as 500, lost 9 killed and 27 wounded.

On June 25 the American line was advanced without opposition to the ridge of Sevilla, looking down on Santiago, 6 miles away. Sevilla was occupied by Gen. Lawton's second division, behind which encamped Gen. Wheeler's dismounted cavalry, while Gen. Kent's first division lay farther in the rear. By June 27 the outposts reached points within 8 miles of Santiago. The light batteries were brought up and posted alongside of Gen. Wheeler's division, and near these the mounted troops of cavalry. The re-enforcements having arrived, Gen. Shafter, in consultation with the other generals, determined on an enveloping movement to prevent a junction of Gen. Pando's force with the troops in Santiago, and a vigorous attack at the same time on the formidable outworks in front, the fortified heights of the San Juan ridge. In order to turn the enemy's left flank and reach the northern side of the city, it was necessary to capture the fortified suburban village of El Caney, an elevated position strongly held 3 miles northeast of Santiago, menacing the American right flank. Gen. Lawton's division moved out on June 30 into the positions determined by a previous reconnaissance. Before daylight on July 1 Capt. Allyn K. Capron's light battery occupied an eminence commanding the village, 2,400 yards distant. Major-Gen. Adna E. Chaffee's brigade took up a position east of the town, ready to move to the attack after the preliminary bombardment, and Brig.-Gen. William Ludlow took his brigade round to the west to cut off the retreat of the Spaniards into Santiago. While the battery was firing at the stone blockhouse and church in the center of the Spanish position and the hedges and trenches where the enemy's infantry was located, Gen. Chaffee's brigade, consisting of the Seventh, Twelfth, and Seventeenth Infantry, advanced to the attack in front, firing continuously but with care, for the men had only 100 rounds of ammunition. Gen. Ludlow also moved up in the rear, and Brig.-Gen. Evan Miles brought up his reserves on the south, so as to form the center of a continuous line nearly encircling the town, and steadily closing in upon its brave defenders. So stubborn was the defense that the brigade of Major-Gen. John C. Bates was ordered up from the rear to strengthen the line, which was thinned in the repeated desperate assaults. After the Spaniards had fallen back from the intrenchments the fire of the guns was concentrated on the brick fort, from which a deadly fire of musketry was poured into the American ranks. Rents were soon torn in the thick walls, and then the brigades of Chaffee, Miles, and Bates made a rush, and carried the work, which was so stoutly defended to the last that only wounded men were left. The smaller blockhouses ceased fighting soon after the main one fell, except one, which was knocked to pieces by a few shots from Capron's battery. The valiant defense of El Caney was conducted by Brig.-Gen. Vara de Rey, who perished in the battle, and of whose total force of only 520 men scarcely a fifth remained alive at the end of the day. The attack on the San Juan position was delayed until Gen. Lawton's troops were well engaged with the Spaniards at El Caney. Gen. Wheeler's cavalry division lay concealed from

the enemy on the hill of El Pozo, 3 miles from Santiago, and Gen. Kent's division was in the rear of the other, encamped near the road. Capt. Grimes got his battery into position at El Pozo, and began firing as soon as it was light on July 1. The Spanish field guns on San Juan hill replied, concentrating their fire on the battery, which, having only ordinary black powder, made a good target. An hour later the cavalry division, the command of which during the illness of Gen. Wheeler devolved upon Brig.-Gen. Edwin V. Sumner, crossed the Aguadores river and deployed to the right under a heavy volley fire of the enemy. Gen. Kent's division followed, taking a road discovered by the war balloon crossing the river farther down, and when across the river advanced in the face of a destructive enfilading fire, then turned to the left, and formed for the attack in front of the main Spanish position, being subjected all the while to the fire of infantry and machine guns from the hill, and that of riflemen hidden in trees on both flanks and in the rear. While the column was halting before forming in line for a charge, Grimes's battery shelled the enemy's position on the heights, 2,000 yards distant. After the cavalry had driven the enemy from their outpost on Kettle hill, the whole line advanced. The brigade commanded by Col. Charles A. Wikoff, consisting of the Ninth, Thirteenth, and Twenty-fourth Infantry, suffered most severely while getting into position, losing successively that commander, Lieut.-Col. William S. Worth, and Lieut.-Col. Emerson H. Liscom, so that the command devolved finally upon Lieut.-Col. Ezra P. Ewers. Gen. Kent hurried forward the rear brigade to save the imperiled formation, the Tenth and Second Infantry, under the brigade commander Col. E. P. Pearson, going to the support of Wikoff's brigade, and driving the enemy back toward his trenches, while the Twenty-first was sent after the brigade of Col. Hamilton S. Hawkins, which had deployed on the right of the division. The formation was at length completed under a destructive fire, and the whole line advanced a short distance, only to find a wide bottom obstructed with entanglements of barbed wire, on the other side of which the enemy was strongly posted along the crest of the high hill. The United States regulars were not dismayed by the sacrifices necessary for the taking of such a position. Both divisions went forward in perfect order, halting at intervals under a pitiless fire while the thick wire fences were being cut. Lieut.-Col. Ewers led his men against a blockhouse surmounting San Juan hill flanked by rifle pits and guarded by obstructions stretching for a mile on both sides. Lieut. Parker's Gatling battery performed valuable service, moving from place to place along the line to support the advance of the infantry. Gen. Hawkins, whose brigade consisted of the Sixth and Sixteenth Infantry and the Seventy-first New York Volunteers, led the two regiments of regulars up the steep sides of the hill in the face of a constant hail of bullets from Mauser repeating rifles. The Thirteenth, Twenty-fourth, and Sixteenth Regiments suffered most heavily. There was no keeping the ranks together in this heroic charge, no need and no possibility of giving orders, yet no wavering or confusion occurred. With one common impulse the men swarmed up the hill, each man as fast and as safely as he could find his way, and over into the trenches, which the Spaniards quickly abandoned. When the action was over the company commanders found that half or more of their men were missing, but the places of some were filled by soldiers from other commands. Capt. Ducat of the Twenty-fourth started with 75 men up the path to the blockhouse, and though he fell, Lieut. Lyon after him,

and half the detachment also, the leaderless remnant rushed into the fortification and took it from the Spaniards, who were dismayed by their impetuosity, thus opening a breach in the Spanish line. Wheeler's division, the Tenth Cavalry, and the Rough Riders in the van, stormed the intrenchments on the Spanish left with not less gallantry than the infantry had displayed, and reached the top, carried the second blockhouse, and cleared the rifle pits almost simultaneously with the capture of the central position. At the beginning of the day the "New York" and "Oregon" attempted to land shells in Santiago from Aguadores, the range being indicated from the captive balloon, but most of the shells cleared the city, many fell in the harbor, and of the few that fell within the city not one exploded. The American forces in the firing line at San Juan and El Caney scarcely exceeded 12,000.

of Gen. Wheeler's division. The two other batteries were brought up and placed in position near Grimes, whence could now be directed a heavier fire on the Spanish trenches. Gen. H. M. Duffield's brigade, consisting of the Thirty-third and Thirty-fourth Michigan and a Massachusetts regiment, captured the outpost of Aguadores on the same afternoon. Spanish prisoners taken at El Caney, who were fed and sent back to Siboney, had been impressed with the fear that they would be shot if captured, which probably was the cause of their desperate fighting there, keeping Gen. Lawton's troops busy throughout most of the day, whereas he had expected to carry the position in two or three hours. The American lines were arranged in their new positions and strengthened with fresh troops during the night. In the morning of July 2 the battle was renewed by the Spaniards, who began



Copyright, 1898, by W. R. Hearst.

THE TOWN OF EL CANEY THE DAY AFTER THE BATTLE.

The victors at El Caney did not rest after their exertions, but marched through the mud to join hands with Gen. Kent's division. Already the Americans were in possession of the entire row of hills along the San Juan river, a mile and a half from Santiago. The American advance had been hurried by reason of the intelligence obtained through Cuban scouts that 8,000 of Gen. Pando's troops were marching to the support of the Santiago garrison. Gen. Garcia's Cuban forces were posted on the road leading from the west, but they were not strong enough to hold in check such a body of Spanish regulars. When night fell Gen. Shafter's troops held the main redoubts in the Spanish outer line of defenses and approached within three-quarters of a mile of the city walls. The Spaniards evacuated only those positions that the Americans took by hard fighting, and still held others of equal strength. While the cavalry division and Gen. Kent's division intrenched themselves securely, Gen. Bates took up a position on the left. Gen. Lawton moved round in the rear to the right

firing from trenches just outside of Santiago as soon as it was light, and drawing but a feeble reply from the Americans, who were safe behind earthworks, made vigorous assaults on Kent's and Wheeler's divisions, which these repelled without stirring from their works. Gen. Lawton on the right made a further advance and gained commanding positions. Nevertheless, so exhausted and depressed were officers and men by two days of fighting, and so alarmed by reports that the enemy had placed siege guns in positions to enfilade the American lines or take them in reverse, and by the belief that the bush on both sides of the road was filled with sharpshooters, which arose from the fact that the long-range Mauser rifles hit and killed men going or coming along the road for at least a mile in the rear of the American line, that many officers importuned the commanding general to order a retreat. A heavy rainfall gave rise to the further fear that the roads would become impassable to the provision trains. Accordingly, Gen. Shafter called a council of the division commanders and discussed

with them the arrangements for a withdrawal. He ordered them to remain in the positions then held for another day, at the end of which they would hold another conference. That night the troops were dismayed afresh by a lively fire of musketry, which occasioned a belief that the Spaniards were trying to break through the lines. Gen. Shafter cabled to the Secretary of War that he was seriously considering a withdrawal of his forces to high ground about 5 miles in the rear. Santiago he found so well defended that he feared he could only take it with serious loss of life, and he must have re-enforcements. While waiting for them he was afraid he could not supply his army in its present advanced position. The Secretary cabled in reply that he desired him to hold the San Juan heights if possible, though he would leave the matter entirely to the judgment of Gen. Shafter. Gen. Miles, who had another expedition already organized at Tampa for the invasion of Puerto Rico, telegraphed to Gen. Shafter that he would be with him in a few days with re-enforcements, which were immediately sent forward. Gen. Shafter had determined to demand the surrender of Santiago before either retreating or advancing. After the first day's battle he asked Admiral Sampson to force the entrance of the harbor and attack the city with the fleet in order to avoid further sacrifice of life in the army. The admiral explained that he was deterred from making such an attempt by the mines in the channel, which would probably cause the destruction of one or more of his ships, rendering the position of both fleet and army more difficult; that if the land forces had attacked the shore batteries in the rear and reduced them he would be able to raise the mines and take his ships inside, but without that the army would have to wait until he could try countermining. He had the apparatus and would make the attempt if Gen. Shafter desired, but it would take a long time. A conference was appointed for the next morning. While Admiral Sampson was steaming up the coast to Siboney for the purpose of going to Gen. Shafter's headquarters at El Pozo in the morning of July 3, Admiral Cervera made his desperate dash out of Santiago harbor. Lest the enemy should evacuate the city, Gen. Shafter had extended his line round to the north and then to the west, so that with the left flank resting on Santiago Bay he had the Spaniards shut in on every side, but with a line perilously attenuated until a re-enforcement of 6,000 men arrived a week later. Siege guns, however, came up and were placed in position, also the re-enforcements of field artillery, and intrenchments were rapidly thrown up by the infantry. In the morning of July 8 there was firing of infantry on both sides, with more heart on the part of the Americans, with less on the part of the Spaniards, who yielded some ground. The siege line was thus drawn closely round the city when the Spanish admiral made his attempt to run the gantlet of the blockading fleet, taking with him some of the guns that had done good execution on the investing troops. The issue of the naval battle greatly altered the military situation. Already on the same morning Gen. Shafter had sent a flag of truce into Santiago demanding the surrender of the town and its garrison before 10 o'clock the next day, on pain of bombardment, and asking the commanding general of the Spanish forces to notify the citizens of foreign countries and women and children to leave the city. Gen. José Toral, on whom the Spanish command devolved, Gen. Linares having been wounded at San Juan, refused to surrender. At the request of the foreign consuls Gen. Shafter agreed to postpone shelling the city for a day, in order that foreigners might be brought into places of safety beyond the American

lines. They asked if the non-combatants would be allowed to take refuge in El Caney, and begged the American general to supply them with food there. Since the imperfect transportation made it impossible to feed the troops sufficiently, the task of supplying 20,000 more people at a point 15 miles from the base was one that Gen. Shafter was unwilling to undertake on his own responsibility. He telegraphed to Washington, and received the approval of the President to his plan of opening the battle on July 5. The whole civil population of Santiago trooped out, their fears being quickened by a terrific cannonading that was heard at the mouth of the harbor, which they believed to be the American fleet forcing an entrance. It was caused by the attempt of the Spaniards in the night of July 4 to block the channel by sinking the "Reina Mercedes," which drew the fire of the American ships. She was sunk by her own crew at the designated place, but, like the "Merrimac," failed to close the passage, for the reason that a shot severed one of the anchor chains, causing her to swing round to one side. At a conference on July 5 with Capt. Chadwick, representing Admiral Sampson, it was agreed that the army and navy should make a joint attack on Santiago at noon on July 9. A truce was arranged till that date, when Gen. Shafter repeated his demand and the threat of bombardment. Gen. Toral offered to evacuate the city on condition that his troops were allowed to march out with all their arms; but Gen. Shafter insisted on unconditional surrender, which was refused. In the afternoon of July 10 the Spaniards opened a vigorous fire with musketry and field pieces. The American artillery returned the fire with telling effect, while the infantry kept under cover of their trenches, firing but little. The infantry fire of the Spaniards also lagged, and their men kept hidden behind their breastworks. The American casualties were only 3 men wounded. Before the firing ceased in the evening all the Spanish artillery had been silenced except one gun. The navy had promised to throw 8-inch and 10-inch shells into the city for twenty-four hours, and, if this did not prove effective, to force an entrance with the smaller vessels. Accordingly, the ships continued firing on the morning of July 11. Some of the shells fell within the city, but did little damage, as the houses were of stone, and when in one or two instances fires were started they were quickly extinguished. The army fired only a few shots from the field guns on this second day, and the infantry kept quiet. In the afternoon another truce was arranged as a preliminary to negotiations for surrender. The archbishop and the citizens, as well as the consuls, urged Gen. Toral to capitulate. After the arrival of Gen. Miles, on July 12, Gen. Toral met him and Gen. Wheeler to discuss terms, and on July 17 the terms were finally settled. The Spanish general agreed to surrender the province of Santiago and all the Spanish troops within its boundaries, except 10,000 at Holguin. The Spaniards were to come to Santiago and to surrender all arms. The guns and fortifications of Santiago and other fortresses were to be turned over to the Americans in good condition. The Spaniards were to co-operate in destroying sunken torpedoes. The American medical corps was to give its services in taking care of Spanish sick and wounded, and the American Government promised to transport back to Spain the surrendered troops, about 22,000 in number. When Gen. Shafter entered Santiago he found such an entanglement of defensive works that, had the Spaniards offered the same resistance as on the first day, it would have cost 5,000 American lives to reduce the place. The actual American losses in the three days of fighting were 22

officers and 208 men killed, 81 officers and 1,203 men wounded, and 79 missing—1,593 in all. Gen. Lawton lost 410 men at El Caney, Gen. Kent 859 at San Juan, and Gen. Wheeler 285. The Spanish losses were Brig.-Gen. Joaquin Vara de Rey, 3 commanders, 12 officers, and 78 men killed, Col. José Baquero, 4 officers, and 116 men missing, and Gen. Linares, Lieut.-Gen. Arsenio Pombo, 6 commanders, 30 officers, and 339 men wounded—total, 593.

Destruction of Cervera's Fleet.—With the coast of Cuba blockaded, Santiago invested, and Manila at the mercy of Admiral Dewey, the Spanish Government, threatened by Republican and and Carlist revolutionaries, and looking forward to speedy bankruptcy, saw no chance of redressing the disasters of the war unless by a lucky stroke of

"New York," had gone up the east coast to hold a conference with Gen. Shafter, so that the command devolved upon Commodore Schley on the "Brooklyn." The fleet had standing orders, in case the enemy attempted to elude the blockade, to close in toward the harbor entrance and attack. The trail of smoke rising above the hills gave warning of the approach of the Spanish vessels as they came down the bay. Commodore Schley signaled to clear for action and close up. As soon as the nose of the "Maria Teresa" was discerned, the "Brooklyn" rushed inshore to head her off, and when she and the "Vizcaya" turned westward Commodore Schley, signaling that the enemy was escaping, turned in a wide circle eastward, southward, and westward, and took a parallel course, followed by the "Texas,"



Copyright, 1898, by W. R. Hearst.

THE WRECK OF THE "CRISTOBAL COLON."

Admiral Cervera. If he could only succeed in breaking through the American fleet off Santiago and gaining Havana harbor, the reviving hopes of the Spanish people and the nervous fears of the Americans might change the issue of the war. Orders were sent to Admiral Cervera from Madrid to make a dash out of Santiago Bay at the first favorable moment. As he foresaw nothing but the annihilation of his squadron as the result of such an attempt, he would not obey until, when the Americans had taken the outworks of Santiago and were planting guns within easy range of the city, the command came from Gen. Blanco in the most peremptory and definite form. On July 3, in the morning, the Spanish ships steamed past the sunken wreck of the "Merrimac," and when they emerged from the harbor's mouth turned their head westward in the direction of Havana. The "Maria Teresa" came first, flying the admiral's flag, then the "Vizcaya," "Colon," and "Oquendo" in order. If he could sink or disable the "Brooklyn," Admiral Cervera hoped that his ships would show their heels to the rest of the fleet. Admiral Sampson, on the

"Iowa," and "Indiana," all firing their heavy guns. The "Oquendo" took fire from one of the first shots of the "Oregon" or the "Texas," but tried to keep on her course, until, riddled with projectiles, disabled, sinking, with half her crew killed, she turned her head to the beach. The "Maria Teresa" was already out of the fight, having been struck by a 12-inch shell from the "Iowa," which exploded one of her magazines and left her a total wreck, only able to run ashore not seven miles from the entrance of the harbor and half a mile nearer than the spot where the "Oquendo" was beached a few minutes later. The destroyers "Terror" and "Pluton" stole out of the harbor in the wake of the cruisers, watching for an opportunity to approach the American battle ships. They were desecrated by Lieut.-Commander Richard Wainwright, of the converted yacht "Gloucester," who ran in to meet them under the guns of the shore batteries, and the battle ships at the same time turned their 6-pounder and rapid-fire guns upon the torpedo craft. A shell exploded on the "Pluton," causing her to sink instantly, after which the "Gloucester" en-

gaged the "Terror" at short range and riddled her with shot until she fled, crippled, for the shore, but struck a reef. The "Vizcaya" and "Colon" led the American ships a race, and the "Iowa" and "Indiana," which had done magnificent execution with their guns hitherto, were left behind. The "Brooklyn" led in the chase, keeping steadily on the "Vizcaya's" quarter, and drew nearer and nearer until she was able to exchange broadsides with the Spaniard. The "Oregon," running closer in, gradually got up a full head of steam, and closed up the distance until the 6-inch guns found their range and landed shell after shell in the cruiser's hull and superstructure. Badly crippled and burning forward and aft, she turned sharp inshore opposite Assaderos, hauled down her colors, and ran

the sinking ships by the boats of the American war vessels and were made prisoners of war and brought to the United States. So poor was the Spanish gunnery that George H. Ellis, chief yeoman of the "Brooklyn," was the only American killed, and only 3 were wounded, and the vessels escaped with scarcely a mark of the combat. Among the Spanish dead was the second in command, Commodore Villamil. Capt. Lazago of the "Oquendo" blew out his brains at the moment of beaching his ship. The "Maria Teresa" was struck 28 times, the "Oquendo" 62, the "Vizcaya" 66, the "Colon" 7 times, but in no instance was side armor penetrated. Of the 12-inch shells, 2 took effect on the "Teresa," with 8-inch shells 55 hits were made; but the greatest destruction was wrought by the rapid-fire 6-pounders, with which 79 effective shots were made. No 13-inch shell struck a Spanish ship.

Admiral Cervera knew that his fleet was doomed before he crossed the ocean, and had informed the Spanish Admiralty that with a short coal supply, defective machinery, and damaged ammunition, and with many of the guns on all the ships defective and useless, and no guns in the turret of the "Colon," the only thoroughly protected ship, his vessels were scarcely able to go to sea, and were altogether unfit for fighting. When the fleet steamed out of Santiago harbor all the officers, who obeyed orders without a murmur, expected nothing but death; yet they manœuvred their vessels in the difficult channel under the fire of the American fleet with the utmost skill, and as soon as they turned into the open sea worked their broadsides as well as they could with useless charges and guns that wounded their own men.

The Cadiz Squadron.—

When the insurgents invested the city of Manila and were entering the suburbs, so that Gen. Augustin sent word that he could not hold out much longer, the Spanish Government, spurred by popular clamor, made preparations to send re-enforcements of troops with the reserve fleet of Admiral Cámara, in hope of wresting the naval control of the Philippines from the Americans and re-establishing Spanish authority over the natives.

This squadron consisted of the "Pelayo," the armored cruisers "Carlos V.," "Alfonso XIII.," and "Vitoria," the auxiliary cruisers "Rapido," "Patria," "Alfonso XII.," "Buenos Aires," and "Antonio Lopez," the "Normannia" and "Giralda," two Hamburg-American liners fitted out as cruisers, the "Audaz" and "Proserpina," the destroyers "Proserpine," "Osada," and "Colombia," and 3 torpedo boats. The new torpedo-boat destroyer "Destructor," accompanied by 3 torpedo boats, made a cruise in the Mediterranean with the object of capturing American pleasure yachts. Cadiz and other Spanish harbors had their fortifications greatly strengthened and mounted with powerful guns, and the channels planted with torpedo mines. The coasts of the Balearic Isles were



Copyright, 1898, by J. C. Hemment.

WRECK OF THE "OQUENDO."

upon the beach. The "Colon" kept on her way, chased by the "Brooklyn" and "Oregon," with the "Texas" behind them, and on her two quarters the "New York" and the little "Vixen." The chase lasted two hours before the "Brooklyn" drew within range, and then the "Oregon" and both ships opened fire with their heavy guns on the cruiser that was bent only on flight. The shots were so effective that the Spanish commander hauled down his colors and ran his ship upon the beach, 50 miles from Santiago harbor. Admiral Sampson, whose ship had signaled to close in at the first sound of battle and moved toward the scene with all possible speed, but arrived too late to take an active part in the battle, received the sword of Admiral Cervera. One third of the Spanish crews were killed or drowned. The remainder, 1,200 in number, made their way to the shore or were taken off

also fortified, and at Teneriffe 7,000 troops worked for weeks throwing up bastions and breastworks. The military expedition to be conveyed by the fleet to the Philippines numbered 11,000 men. Toward the end of June Admiral Caméra set out on the voyage for the Philippines. Whether with his defective ships he could make the cruise, whether his setting out was only a feint, was known only to the Spanish authorities. Orders were published in the United States for Commodore John C. Watson to proceed in all haste with a division of the fleet to harass the coast of Spain. This was indeed a ruse to procure the recall of Caméra's ships, for not one of Admiral Sampson's seven armored vessels could be spared from the more important service of keeping Admiral Cerverá's division confined in Santiago harbor. The monitors "Monterey" and "Monadnock," however, were dispatched across the Pacific, so that if Admiral Dewey were compelled to leave Manila Bay on Caméra's approach he could join the monitors, return later, and effectually give battle to the Spanish armored fleet, thus restoring the previous conditions. Admiral Caméra's vessels reached the Suez Canal in very poor condition, and, after a controversy with the Egyptian Government, which refused to let them take on coal for hostile purposes in violation of the neutrality laws, took their laboring course back to Spain.

Operations in Puerto Rico.—The conquest of Puerto Rico was undertaken by Major-Gen. Nelson A. Miles, commanding general of the army, who had a complete plan of campaign ready, but could not carry it out until the fall of Santiago set free some of the seasoned troops. He set out from Guantanamo Bay on July 20 with the advanced guard of 3,415 officers and men, consisting of the re-enforcements that he had brought to Gen. Shafter's army at Santiago. The primary objective was Ponce, on the opposite side of the island from San Juan, the principal stronghold where the Spanish forces were massed. He did not, however, venture an immediate descent upon the fortified and presumably well-defended southern port. The navy made a feint of attacking it, and another demonstration at San Juan, and the Spaniards were induced to guard Fajardo and other supposed points of debarkation, while the troops were landed on July 25 in the neighborhood of Ponce at Guanica, opposed only by a small force in a blockhouse. On the following day they advanced to Yauco, and after a sharp encounter seized the railroad running into Ponce. On July 28 the "Dixie," "Annapolis," "Wasp," and "Gloucester" arrived with transports off Ponce, which was surrendered without a struggle, the Spanish garrison and officials retiring toward San Juan, while the people of the town welcomed the Americans. If the Puerto Ricans had not been disappointed and deceived by the Spanish Government like the Cubans, exasperated by false and illusive promises of reform and home rule, the difficulties of the expedition would have been greater. As it was, Gen. Miles had to plan the conquest from a sea base of a country in the possession of an enemy having at first superior forces, 8,233 Spanish regulars and 9,107 volunteers, and for the success of his operations he was obliged to depend mainly, not on the skillful and fearless soldiers of the regular army who broke through the defenses at Santiago, but upon inexperienced volunteers. The fresh detachment of troops was landed at Ponce on July 29, and while a column proceeded toward the important inland town of Guayama the third and last section of the invading army debarked on Aug. 2 at the neighboring seaport of Arroyo, which had surrendered to the navy on the preceding day. The entire expedition consisted of the Eleventh and Nineteenth Regular Infantry, Second and Third Wisconsin,

Sixth Massachusetts, Third and Sixth Illinois, Fourth and Sixteenth Pennsylvania, Fourth Ohio, First Kentucky, two companies of the Twenty-seventh Indiana, one troop from the Second and one from the Sixth United States Cavalry, two militia troops from New York and one from Philadelphia, four batteries of the Fourth, two of the Third, two of the Fifth, and two of the Seventh Artillery, one company of the Signal Corps and two companies of United States Engineers. The total strength was 16,978 officers and men. With this force Gen. Miles planned to occupy the remaining ports and the highways and towns of the interior, driving the Spanish troops back upon San Juan, which was closely blockaded by the fleet. From Ponce and Guanica, around by the west coast, were the ports of Mayaguez and Aguadilla, the two connected by a railroad, and on the north coast Arecibo, whence a railroad leads to San Juan. From Guayama the way to San Juan was northward across the island. Major-Gen. John R. Brooke, commanding at Arroyo, sent Brig.-Gen. Peter C. Hains with two regiments of volunteers to occupy Guayama, which was accomplished with slight opposition on Aug. 5. The enemy had taken up a strong position 3 miles beyond on the road to Cayey, and was found in too great force to warrant an attack by the advance guard, which intrenched itself at Guayama until Gen. Brooke could bring up the main body of his division.

A column under Brig.-Gen. Theodore Schwan made a rapid advance from Yauco in the direction of Mayaguez and Aguadilla with a column consisting of the Eleventh Infantry, a troop of the Fifth Cavalry, and batteries of the Third and Fifth Artillery. Setting out on Aug. 8, he occupied Sabana la Grande and San German on Aug. 10, and proceeded to attack the enemy in the hills near Hormigueros. With a swift charge under heavy fire, the Americans carried the strong position with a loss of only 1 killed and 15 wounded, putting to flight 1,200 Spaniards, who lost 4 officers and 20 men killed and 50 wounded. Gen. Schwan marched into Mayaguez, which was undefended, the next morning, and immediately moved on toward Aguadilla. On Aug. 18 he repelled an attack by 1,500 of the enemy near Rio Canas, suffering no losses. Operations then ceased, as he was able to inform the Spanish commander on the following day that an armistice had been concluded between the two nations.

Major-Gen. James H. Wilson commanded the second division, with headquarters at Ponce. Brig.-Gen. Roy Stone set out on Aug. 1 with a company of the Second Wisconsin Volunteers and a detail from the Signal Corps, for the purpose of reconnoitering the route to be followed by the brigade of Gen. Guy B. Henry, who was instructed to clear the road across the island to Arecibo and there effect a junction with Gen. Schwan, so that the united forces could execute a flank movement on San Juan and menace the rear of the Spanish forces contesting Gen. Wilson's advance along the main military road through the hills about Aybonito, cutting off their retreat and compelling them to surrender if they should not hastily abandon their positions of strength and fall back on San Juan. When Gen. Stone's little party approached Adjuntas, a town in the hills where the roads from Ponce and Yauco unite in a single road leading down to Arecibo, the garrison of 400 Spanish regulars retired northward, leaving 100 volunteers in the place, who promptly surrendered to the Americans. The enemy continued to retreat before him, as Gen. Stone pushed on to Utuado and beyond, accepting the surrender of the villages through which he passed, until he finally found himself in front of Arecibo. In re-

sponse to a demonstration, the inhabitants of that place offered to surrender, but he was too prudent to take possession with his feeble force. Gen. Henry followed with his column of troops to occupy the places that had been willingly surrendered to the reconnoitering party from which the Spaniards ran away. Gen. O. H. Ernst's brigade of Gen. Wilson's division encountered opposition in its advance by the main military road. Leaving Juan Diaz, 13 miles from Ponce, on Aug. 4, it took Coamo on Aug. 9 after a short but sharp engagement, in which the Spaniards lost their commander and many soldiers and the Americans had 6 men wounded. Near Aybonito the enemy was found intrenched on the hills commanding the pass through the mountains. Gen. Wilson brought up re-enforcements, and after Capt. Potts had shelled the position of the Spaniards, who replied with artillery and musketry fire, killing 1 man and wounding 1 officer and 4 men, more advantageous ground was gained for the artillery, which was about to resume the battle on the following day, Aug. 13, when news of the armistice reached the front and hostilities ceased. A simultaneous advance was made from Arroyo by Gen. Brooke, who marched on Aug. 12 with the main body of his troops to Guayama and moved up the enemy's intrenched position in the hills near Cayey in the afternoon of the same day. Just as the dispositions for the attack were completed and the guns were about to open fire orders came to stop all operations. Not one of the movements in Gen. Miles's well-conceived strategic plan was brought to completion, yet every manœuvre as far as it had gone had been carried out swiftly, smoothly, and harmoniously, precisely as was intended. Gen. Miles had kept the Spaniards in a state of uncertainty, and while they were withdrawing along the line of the great military road, destroying bridges behind them to obstruct the road and fortifying strong positions in the mountain passes, they were surprised to see one column of the Americans sweeping round to the west and capturing the principal towns, while another made its way over a mountain trail that was believed to be impassable. Suddenly a strong brigade of Americans appeared near the northern coast at the terminus of the railroad connecting San Juan and Arecibo. The brilliant campaign was already virtually won, and in a few days more all the columns would have been closing in upon San Juan. The positions gained by the United States forces in less than three weeks had rendered every Spanish post untenable outside of San Juan. The Spaniards had been defeated in six engagements, leaving a large part of the island in the control of the United States troops, who by skillful tactics and good generalship had achieved this with a loss of 3 killed and 40 wounded, about a tenth of the enemy's loss in killed, wounded, and captured.

Actions at Manzanillo and Nipe.—After the destruction of Cervera's squadron and the surrender of Santiago, the blockading vessels were at liberty to push the war at other points of the coast with less restraint. Admiral Sampson ordered the flotilla blockading Manzanillo to go in and destroy the shipping there. Under the command of Commander Chapman C. Todd the gunboats "Wilmington" and "Osceola" and the auxiliary vessels "Scorpion," "Hist," "Hornet," "Wompatuck," and "Osceola" steamed boldly into the harbor on the morning of July 18 and opened fire upon the Spanish shipping. Several Spanish gunboats came out to meet them, firing briskly but without accurate aim. After two hours and a half the American vessels withdrew, having sunk 3 Spanish gunboats and driven 2 ashore in a disabled state, and destroyed 3 transports without a single casualty on their side nor any injury to the vessels.

On July 21 the "Annapolis," "Topeka," "Wasp," and "Leyden," under the orders of Commander John J. Hunkler, entered the harbor of Nipe on the northeast coast of Cuba for the purpose of capturing it as a base of operations for the Puerto Rican campaign. As the result of a lively bombardment for an hour the three forts were silenced, the Spanish gunboat "Jorge Juan" was sunk, the Spanish infantry who fired upon the vessels from various points of vantage were driven away, and the Americans were left in possession of the harbor. The ships received no damage, and not a man was hurt.

The Taking of Manila.—The United States Government, after Commodore Dewey's victory, decided to carry on an aggressive military campaign in the Philippines, and to send 12,000 troops to occupy Manila. Major-Gen. Wesley Merritt was assigned to the command of the expedition and appointed Military Governor of the Philippines. The troops of his command, consisting of volunteers from States and Territories west of the Mississippi, and regulars stationed on the Pacific coast, were ordered to a training camp at San Francisco. Gen. Merritt asked for a larger force and one consisting to a great extent of regulars. The first expedition under Brig.-Gen. Francis V. Greene, numbering 158 officers and 3,428 men, sailed from San Francisco on May 25 and arrived at Manila on June 30. Brig.-Gen. T. H. Anderson followed with another force on June 8. The United States troops occupied a line of intrenchments in front of Malate, the center of the Spanish position, with their left flank resting on the sea and their right covered by the insurgent forces, who infested the eastern and northern sides of the city completely, and were armed with the weapons they had taken from Cavité arsenal and some that they had imported, in addition to those that the volunteer regiments organized among the natives by Gen. Augustin had taken over to the insurgents when they deserted. The American commanders never had recognized them as allies, and were anxious to have a sufficient force on the spot, not only to compel the surrender of Manila, which the ships might have accomplished by a bombardment, but to oppose Aguinaldo's forces if necessary and prevent them from taking and sacking the city. Gen. Merritt arrived with the third expeditionary force under Brig.-Gen. Arthur McArthur on July 31, and on Aug. 4 the monitor "Monterey" joined the fleet, having heavier guns than the 10-inch Krupps that the Spaniards had mounted on the sea front. While waiting behind the breastworks the Americans had repeatedly been subjected to harassing night attacks. Immediately after the American troops occupied the trenches on the sea side, which the insurgents had been induced by clever negotiation to yield up, and found themselves for the first time immediately in front of the Spanish lines, an assault was made on July 28 upon both flanks and in front by 3,000 Spanish, who demoralized the Tenth Pennsylvania by a cross fire and had begun to throw into confusion a battery of Utah volunteer artillery, when a battery of the Third Regular Artillery was brought up by Lieut. Krayenbuhl and Lieut. Kessler, which checked the Spaniards as they were sweeping before them a battalion of the Pennsylvanians that was moving across an open space to re-enforce the right flank. Gen. Greene hastened to the scene, and with another battery of artillery turned the tide of battle and drove the Spaniards to cover. Capt.-Gen. Augustin who had frequently declared that he would resist to the death, when he saw that he could not save the Philippines for Spain, resigned his authority on July 24 into the hands of Gen. Fermin Jaudenes, and with the permission of Admiral Dewey sailed away on a German man-of-war. With Gen. McArthur's division the

American troops numbered more than 11,000. The Filipinos had been restrained from assailing the city with great difficulty by the able diplomacy of Admiral Dewey. This danger and the impatience and uncomfortable situation of his own troops rendered imperative the speedy action of Gen. Merritt, now that his force was strong enough to police the city as well as to capture it. On Aug. 7 Gen. Merritt and Admiral Dewey gave notice to Capt.-Gen. Jaudenes that they might begin operations within forty-eight hours, and when in his reply he expressed solicitude for the sick, wounded, women, and children, they appealed to him to surrender as a course as honorable as it was humane in view of the hopelessness of the military situation. He asked for time to consult his Government, but such delay they declined to grant. In the meantime both sides were making every preparation for battle. The commanders had no knowledge that the two governments had concluded a truce. The attack was delayed beyond the time set in the ultimatum to give Gen. Merritt time to extend his line around to the east so as to save and guard the bridges against the insurgents who were bent on plunder and vengeance against the Spaniards. The intended attack was carefully kept from their knowledge. The Spaniards were unwilling to yield up the defenses of the city without a contest and yet were anxious to have the Americans in possession before the insurgents on the other side could force their lines. They understood that Admiral Dewey would not shell the city itself if the forts of the walled town kept silent, and they intended to capitulate after the Americans broke through the outer line of defenses, having a circumference of 10 miles around the city. In the morning of Aug. 13 the fleet, consisting of the "Charleston," "Baltimore," "Boston," "Concord," "Monterey," "Olympia," "Raleigh," "Petrel," and the captured "Callao" and "Barcelo," bombarded the fortifications of Malate, and after many shells had fallen in the water found the range in spite of a heavy mist and rain. Shells exploded inside of Fort San Antonio de Abad, setting fire to ammunition and stores. Simultaneously the Utah battery played on the breastworks. The Colorado regiment advanced before the bombardment had ceased, firing volleys, which were answered by the noiseless Mausers, and an hour and a half after the first shot they had possession of the fort. Followed by the California troops they drove the Spanish infantry out of their intrenchments, rushed the Malate barricades, fought from house to house, and reached the Luneta and esplanade, when a white flag was raised. The insurgents had opened fire before the Americans and were advancing upon the town from the opposite side passing by Gen. McArthur's troops, which had been extended far to the right to hold them in check. When Gen. Greene found bodies of insurgents entering the city he drove them back. In the confusion some of the Spaniards continued to fire upon the Americans after the signal of surrender was displayed. On the right the Astor Battery, eager for the fight, attacked the Spanish blockhouses, and when Gen. McArthur ordered an advance the Spaniards were driven from their barricades, but not without inflicting some losses. The total losses of the Americans in the engagement were 5 killed and 45 wounded.

The city and the Spanish troops capitulated with the honors of war, and the Americans placed a strong guard in all parts of the city to protect them and the citizens from the insurgents. Gen. Merritt, as Military Governor, issued a proclamation in which he assured the people of the islands that he had not come to wage war upon them nor upon any faction among them, but to protect them in

their homes, their employments, and their personal and religious rights; that the municipal laws, so far as they were compatible with military government, would remain in force; that the port of Manila would be open to the people of all neutral nations, as well as to the American people, upon the payment of the established rates of duty; and that no persons would be disturbed in their persons or their property so long as they preserve the peace and perform their duties toward the representatives of the United States.

Additional re-enforcements were sent to the Philippines in the middle of August. Major-Gen. Elwell S. Otis took the chief military command, allowing Gen. Merritt to devote all his attention to political and administrative problems. The total force numbered 641 officers and 15,058 enlisted men. It comprised the Fourteenth, Eighteenth, and Twenty-third Infantry, First California, First Nebraska, Tenth Pennsylvania, First Wyoming, First Idaho, Thirteenth Minnesota, First Colorado, First Washington, First South Dakota, First Tennessee, Twentieth Kansas, Fourth Cavalry, first troop of Nevada cavalry, four heavy batteries of the Third Artillery, two light batteries of the Sixth, the Astor Battery, four companies of California Artillery, two batteries of Utah Artillery, one company and one detachment of United States Engineers, and detachments of the Signal and Hospital Corps.

Gen. Merritt appointed Gen. McArthur Military Commandant of Manila, Gen. Greene Provost Marshal, Col. Smith (who was succeeded later by Brig-Gen. C. A. Whittier), Director of Fiscal Affairs, and Capt. Glasspert Collector of Customs. Gen. Anderson was appointed commandant at Cavité. Gen. Elwell S. Otis was assigned to the command of the United States troops in the Philippines.

Peace Negotiations.—On July 26 Jules Cambon, French ambassador, to whom the interests of Spain had been committed when diplomatic relations were broken off, was instructed to inquire if peace negotiations could be opened. The President replied to the French note on July 30, with a statement of the preliminary conditions that the United States would insist upon as a basis of negotiations. The President did not for the moment put forward any claim for a pecuniary indemnity, but required the relinquishment of all claim of sovereignty over or title to the island of Cuba, as well as the immediate evacuation of that island; the cession to the United States and immediate evacuation of Puerto Rico and other islands under Spanish sovereignty in the West Indies, and the like cession of an island in the Ladrões. The United States would occupy and hold the city, bay, and harbor of Manila pending the conclusion of a treaty of peace, which should determine the control, disposition, and government of the Philippines. If these terms were accepted by Spain in their entirety, the United States would name commissioners empowered to meet commissioners appointed on the part of Spain for the purpose of concluding a treaty of peace on this basis.

A protocol of agreement was signed by Secretary Day and Ambassador Cambon on Aug. 12, containing the following articles embodying a basis for the establishment of peace between the two countries.

ARTICLE I.—Spain will relinquish all claim of sovereignty over and title to Cuba.

ART. II.—Spain will cede to the United States the island of Puerto Rico and other islands now under Spanish sovereignty in the West Indies, and also an island in the Ladrões, to be selected by the United States.

ART. III.—The United States will occupy and hold the city, bay, and harbor of Manila pending

the conclusion of the treaty of peace, which shall determine the control, disposition, and government of the Philippines.

ART. IV.—Spain will immediately evacuate Cuba, Puerto Rico, and other islands now under Spanish sovereignty in the West Indies; and to this end each Government will, within ten days after the signing of this protocol, appoint commissioners, and the commissioners so appointed shall, within thirty days after the signing of this protocol, meet at Havana for the purpose of arranging and carrying out the details of the aforesaid evacuation of Cuba and the adjacent Spanish islands, and each Government will, within ten days after the signing of this protocol, appoint other commissioners who shall within thirty days after the signing of this protocol, meet at San Juan, in Puerto Rico, for the purpose of arranging and carrying out the details of the aforesaid evacuation of Puerto Rico and other islands now under Spanish sovereignty in the West Indies.

ART. V.—The United States and Spain will each appoint not more than five commissioners to treat of peace, and the commissioners so appointed shall meet at Paris not later than Oct. 1, 1898, and proceed to the negotiation and conclusion of a treaty of peace, which treaty shall be subject to ratification according to the respective constitutional forms of the two countries.

ART. VI.—Upon the conclusion and signing of this protocol hostilities between the two countries shall be suspended, and notice to that effect shall be given as soon as possible by each Government to the commanders of its military and naval forces.

The naval and military commanders on both sides were ordered to cease hostilities, and the blockade of Cuba was discontinued.

The expenditures for the army during the war were estimated at \$78,500,000; for the navy, \$36,000,000; total, \$114,500,000. The army lost 83 officers and 257 men killed in battle; 4 officers and 61 men died from wounds, and 80 officers and 2,485 men from disease; total, 2,910 out of 274,717 officers and men in the service. The casualties in the navy were 18 killed in battle, 29 from injuries received, 1 drowned, and 56 from disease.

29 20 7.
The arms surrendered at Santiago included 16,902 Mauser, 872 Argent, and 6,118 Remington rifles, 1,247 carbines, 4,651,000 rounds of small-arm ammunition, 30 bronze, 10 iron, and 8 steel rifled cannon, 5 mortars, 44 smooth-bore cannon, 3,551 solid shot, 437 shrapnel, and 2,577 shells. The vessels sunk by Admiral Sampson's squadron off Santiago were the armored cruisers "Cristobal Colón," "Vizcaya," "Maria Teresa," and "Almirante Oquendo," and the destroyers "Furor" and "Pluton." The gunboats "Maria Ponton," "Delgado Perado," "José García," "Cuba," and "Española" were burned, and the transport "Gloria" sunk, at Manzanillo on July 18. Admiral Dewey's squadron sunk in the battle of Cavité the cruisers "Reina Christina," "Castilla," "Ulloa," "Isla de Cuba," "Isla de Luzon," and "General Lezo," the gunboats "Duero," "Correo," and "Velasco," and one transport. Of the ships sunk at Manila the "Isla de Luzon," "Isla de Cuba," and "Don Juan de Austria" were raised and repaired by the skill of Naval Constructor G. W. Capps, and now belong to the American navy. The naval vessels captured in the Philippines were the torpedo boat "Barcelo," the iron gunboats "Leyte" and "Callao," the wooden gunboat "Mindanao," the iron transport "Manila," and the tugs "Rapido" and "Hercules." Lieut. Hobson raised the "Maria Teresa," but she was driven in a storm upon a reef off Cat island while being towed to the United States. The gunboat "Sandoval," sunk in Guantanamo harbor, was

raised by Commander McCalla. The steel gunboat "Alvarado" was captured at Santiago. The other vessels taken in Cuban waters were the gunboats "Hernán Cortez," "Pizarro," "Vasco Núñez," "Diego Velásquez," "Alerta," "Ardilla," "Tradera," "Flecha," "Ligera," "Satellite," "Margarit," "Vigia," "General Blanco," "Intrepida," and "Canto," each of about 300 tons.

Administration of the Army.—The condition of the United States troops became pitiful after the surrender of Santiago. Several cases of yellow fever had developed in camp during the investment. The endemic malarial fever, frequently mistaken for yellow fever, spread rapidly through the ranks while the men were in the trenches, finding them in an extremely susceptible condition, owing to their privations and fatigues, their lack of proper and sufficient food, of preventive medicines, and of clothing and shelter sufficient in the tropical rains. The refugees who came out of Santiago when the place was threatened with bombardment numbered nearly 20,000 persons, and carried infection into the camps. When Gen. Miles reached the front he ordered the town of Siboney, where a general hospital had been established, into which the sick refugees, some of them infected with yellow fever, were admitted, to be burned to the ground. From the refugees the fever spread to the army camps, and the swamp fever and typhoid caused even more mortality among the soldiers. Secretary Alger had given instructions to have the troops moved back into the mountains, to remain in camp there until the yellow fever had run its course among them. Some of them began the toilsome march, though the conditions were found to be fully as unsanitary in the hills as near the coast, and Col. Roosevelt, of the Rough Riders, assumed the responsibility of protesting against the policy of the War Department. He informed Gen. Shafter that not ten per cent. of the troops were fit for service, and that the army was likely to perish if it was kept in camp in Cuba after the privations and exposure it had undergone. All the division and brigade commanders united in signing a round robin saying that the army must be moved to save the lives of the soldiers, and this document was given to the press. Gen. Miles also urged the return of the army to the United States as quickly as possible. Secretary Alger thereupon issued orders to have the troops taken to a camp prepared for them at Montauk Point, Long Island, instructing Gen. Shafter at the same time that no more reports must be divulged without the authorization of the War Department. The regiments of immunes alone were left to garrison the surrendered territory. Camp Wikoff, on Montauk Point, near the eastern extremity of Long Island, was naturally salubrious, but was not ready for the reception of the soldiers, either sick or well, when they were hurried up from Cuba, crowded on 32 transports, insufficiently provisioned and lacking medical supplies. Most of the men were broken in health in consequence of the fatigues, exposure, and privations endured in Cuba; many were suffering from climatic and camp diseases. The first transport arrived on Sept. 21. Not until the last one came was a true case of yellow fever discovered. The number of men who died on the voyage from Cuba to Montauk Point was 37. In the camps in Cuba 427 deaths from disease occurred. In Puerto Rico there were 137 deaths, and in camp near Manila 63 men died. The mortality at Camp Wikoff during the brief period of its existence was 257.

The first of the 12 main army camps in the United States was established on April 14 at Chickamauga Park, in Georgia, and was called Camp Thomas. Here the regulars were concentrated and

encamped until they were ordered to Cuba. Later, volunteer regiments, out of which the First and Third Corps were organized, were drilled here, and troops kept coming until nearly 60,000 were collected in this spot, which became a nursery of typhoid fever. After 425 men had died the War Department broke up the camp, sending the troops to other quarters. On May 2 a camp was established at Tampa, Fla., which was the port of embarkation for troops sent to Cuba. Gen. Shafter's Fifth Army Corps was organized and trained here, and though there was congestion of men and material and much confusion and lack of proper supplies and camp equipment, epidemic disease did not break out and only 56 deaths occurred. Camp Cuba Libre, at Jacksonville, Fla., first established on May 26 and commanded by Major-Gen. Fitzhugh Lee, was the best managed and kept of all the camps. There the Seventh Corps was organized and trained in brigade evolutions, and the camp

ect of quartering soldiers in the cities having been vetoed by Secretary Alger, it was decided to establish small camps in the vicinity of Southern cities, as Camp Wheeler at Huntsville, Ala., Camp Hamilton at Lexington, Ky., Camp Poland at Knoxville, Tenn., Camp Shipp at Anniston, Ala., and others at Athens, Macon, Atlanta, Huntsville, Greenboro, and other towns in North and South Carolina and Georgia. At Camp Poland 23 men died; at Camp Shipp, 12; at Camp Hamilton, 29; at Camp Wheeler, 35. At other minor camps and posts in the east the number of deaths was 373. As the months went on, better supplies were furnished, sanitary precautions were taken, and better care was given to the sick, so that the health of the troops was much improved, even before the cool weather came to diminish the chances of infection. The number of deaths in the camps at San Francisco was 139, making the total number of deaths from disease and accidents 2,435. The sickness and debility of



HOSPITAL TENT, CAMP WIKOFF.

was always full from the time of its establishment until Gen. Lee took his soldiers to Havana in December, they having been selected as the ones most fit for relieving the Spanish garrisons in Cuba. There never was any lack of proper food or water, as at Tampa and other camps. Drainage, bathing facilities, and other sanitary arrangements were provided here alone, and no epidemic was developed. The total number of deaths was 246. Camp Alger, established at Dunn Loring, near Falls Church, Va., on May 18, had a deficient water supply, and very soon typhoid fever broke out in epidemic form. The hospitals were filled with patients, and after 107 deaths had occurred the camp was condemned and the troops sent in August to Camp Meade, at Middletown, Pa., where 64 more deaths resulted from fever contracted at Camp Alger. The War Department at this time concluded that large camps were fatal places for soldiers and dangerous to the health of the country. The proj-

the men in the trenches before Santiago was aggravated by the lack of ambulances, which Gen. Shafter in his eagerness to shorten the campaign, had omitted to take along, of medical supplies, which were left on the ships for lack of method in packing and discharging the cargoes, and for want of a sufficiency and variety of food, due to defects in the commissary and transport services. Many of the staff officers appointed from civil life were unacquainted with or neglectful of their duties.

The Government attempted to supply the troops with refrigerated beef; but through some oversight the contracts provided that it should keep only twenty-four hours after delivery, instead of seventy-two hours as was intended. Much of it was said to be spoiled before it reached the camps, and some of it had the odor and appearance of having been injected with boracic or salicylic acid or some such preservative fluid. Much of the canned roast beef was so low in quality and so deficient in nutritive

constituents that the men would not eat it, declaring that it made them sick. It was dealt out to the troops only to be thrown away, and great quantities reached Cuba in a putrid condition and were thrown overboard. This beef was believed to have been rejected scraps and carcasses from which whatever soluble nutrients they contained had been boiled out to make commercial meat extract. Gen. Miles bought native beasts in order to furnish his regiments in Puerto Rico with cattle on the hoof, as has been the custom in the United States army.

The medical service in Cuba was so deficient that the Red Cross Society came to its aid with hospital equipments and medicines. So many complaints were made of the commissary and quartermaster-general's and the medical departments, that the President appointed a commission to investigate the charges of criminal neglect of the soldiers in camp and field and hospital and in transport, and to examine the administration of the War Department in all its branches. After many had declined to serve, the commission was finally constituted as follows: Gen. Granville M. Dodge, president, Col. James A. Sexton, Col. Charles Denby, Capt. Evan P. Howell, Urban A. Woodbury, Brig.-Gen. John M. Wilson, James A. Beaver, Major-Gen. Alexander McDowell McCook, and Dr. Phineas S. Conner. They met first in Washington on Sept. 8, and examined witnesses there and in New York and Chicago, and inspected the Southern camps. Gen. Miles described the refrigerator beef supplied to his army as apparently "embalmed" and causing sickness among his men, and so objectionable that he asked the War Department to send him no more. He called it an experiment to supply the army with refrigerated beef. Brig.-Gen. Charles P. Egan, Commissary General of Subsistence, appeared before the commission and accused Gen. Miles of lying. Gen. Egan was court-martialed and condemned to be dismissed from the army for conduct unbecoming an officer and a gentleman, but President McKinley commuted the sentence to six years' suspension from duty.

The Philippine Revolutionary Government.—When Gen. Anderson first landed with American troops, Aguinaldo endeavored to extract from him assurances that the United States would not assert sovereignty over the islands. Failing to obtain pledges from the American authorities, he prevented the troops from getting transportation from the natives. The young Filipino leader, who gained recruits constantly by representing that the Americans intended to restore the islands to Spain, and by encouraging his adherents to plunder the Spaniards in the interior, removed all possible rivals and all who might be favorable to American control. Thus Isabelo Artacho was executed and Sandigo was compelled to flee. The Spanish garrisons in the smaller places were captured one by one and priests and civilians also were made captives. The rich booty of the convents was divided between the provincial leaders and the central administration. Aguinaldo, who assumed the titles of President of the Philippine Republic and Dictator, appointed on July 5 a Cabinet in which Baldomero Aguinaldo was Minister of War and Public Works, Leandro Ibarra Minister of the Interior, and Mariani Trias Minister of Finance. He issued on Aug. 6 a declaration of Philippine independence and an appeal to the foreign powers to recognize the belligerent rights of the revolutionary Government. He asserted that the revolution dominated the provinces of Luzon and the capital city; that Government was administered by the revolutionary authorities; that he had a regular army of 30,000 combatants and held 9,000 Spanish prisoners of war. In various public declarations he intimated that the United

States representatives had recognized him as a military ally and had formally co-operated with him against the Spaniards. This impression Gen. Merritt removed by refusing to discuss political questions with Aguinaldo, who after the fall of Manila complained that the American commanders had attacked Manila without inviting his co-operation, and had not admitted him to a share of the spoils after he had permitted the American troops to land and had befriended and helped them in many ways. He put forward a series of demands, promising to withdraw his troops to certain limits close to the city, provided that Gen. Merritt agreed to give him certain convents in Manila, to consult him about all civil appointments, to permit Filipino soldiers to enter the city at will with their arms, and to confine the occupation to the city only, no Americans being permitted to leave its limits without permission from him. For some days after the surrender of Manila the Spanish soldiers in the trenches on the eastern and northern sides of the city remained at their posts to co-operate with the Americans in keeping out the insurgents, who made ineffectual attempts to break through the lines. The Filipinos held the waterworks supplying Manila and only by threats were they induced to give up possession. Felipe Agoncillo, Vice-President of the revolutionary Government, was sent as an envoy to the United States to confer with President McKinley with reference to the recognition of Philippine independence.

A Philippine Congress met at Malolos in September to draw up a constitution. Many influential Filipinos held themselves aloof, and not all who were present were opposed to American rule. On Sept. 8 Gen. Otis demanded that the Filipinos should evacuate the suburbs of Manila, and Aguinaldo at length complied to avoid a collision. Later, fearing that the Americans would cut his lines of communication and hem in his forces south of Manila, he evacuated Cavité, Bakor, and other posts and established his headquarters at Malolos. His power and influence grew not only in the island of Luzon, but in Mindoro, Panay, Zebu, Leyte, and Samar. The insurgent soldiers, undisciplined and without training during the siege of Manila, were afterward put through a severe course of drill and schooled in imitation of American methods until they attained a remarkable proficiency in ordinary evolutions and the manual of arms. The army was organized in brigades and divisions. In civil administration the revolutionary Government, after the meeting of the Congress, more carefully conformed to the laws and usages of civilized communities. The policy of the United States Government was not defined until after the signature of the treaty of peace. President McKinley then instructed Gen. Otis to make known to the inhabitants of the Philippine Islands that, in succeeding to the sovereignty of Spain, the authority of the United States is to be exerted for the security of the persons and property of the people of the islands and for the confirmation of their private rights; and that whoever by active aid or by honest submission co-operates with the Government of the United States will receive its support and protection, but all others will be brought within its lawful rule with firmness, though without severity, the municipal laws of the territory continuing in force until the legislation of the United States shall otherwise provide. At the end of December Aguinaldo reconstructed and completed his Cabinet by appointing Mabani Minister of Foreign Affairs, Teodoro Sandica Minister of the Interior, and Gregorio Gonzaga Minister of Public Works. The Spanish Government entered into negotiations with the revolutionary Government for the release of the Spanish

prisoners without success, and at its request the United States military authorities made an unavailing demand for their liberation.

Occupation of Iloilo.—When Gen. Rios, in Iloilo, who with 800 Spanish troops could not have held out much longer against the assaults of the natives, received word that the islands were to be ceded to the United States, he handed the town over to Vincente Guies, the Alcalde, and on Dec. 25 departed with his troops, instead of awaiting the American force, which was sent somewhat tardily to take possession. The Alcalde surrendered the place on Dec. 26 to 3,000 insurgents, expressing the hope that the Philippine republic would maintain its power against any other Government. The Eighteenth Infantry, Sixth Artillery, and Iowa volunteers, under command of Gen. M. P. Miller, arrived in the bay, Dec. 29, on the "Newport," conveyed by the "Baltimore." Gen. Lopez at once assembled 15,000 native warriors at Jaro, outside of Iloilo. The orders from Washington were to occupy Iloilo, but to do nothing to bring on a conflict with the insurgents. The Filipinos refused to surrender the town without instructions from Aguinaldo, and Gen. Miller prepared to land forces to take forcible possession, but was deterred by a petition from the European residents. It was not till Feb. 11, 1899, that the city was occupied by the Americans.

The Cuban Military Assembly.—The Provisional Government of the Republic of Cuba, consisting of President Bartolome Maso, Vice-President Mendez Capote, and Secretaries Font, Aleman, and Moreno de la Torre, met at Santa Cruz on Sept. 1, and—considering that they had been elected by the people under arms, but that they represented the majority of the Cubans; that the United States Government, which had liberated Cuba from Spanish domination, pursued the same object as themselves, Cuban independence, and, while not recognizing, had not opposed or dissolved their authority—decided to call another assembly to determine what course should be pursued pending the execution of the purpose of the United States Government, which was that the whole Cuban people should choose a Government that would shape the destinies of the island. The first Council of Government was constituted in September, 1895, when representatives of the Cuban army assembled at Jimaguay and voted a constitution for two years unless the war ended before. In 1897 the Assembly, meeting again, adopted a new constitution, and appointed a new Government Council for the war period. President Maso, in a letter to President McKinley, represented that this constitution was the only legal system in force in Cuba; and that the Provisional Government, although its mandate expired on the cessation of the war, ought to be the legal starting point for future developments of Cuban politics, since it alone exercised any authority that was respected. The Provisional Government was not recognized any more than it had been. A military government was appointed for Santiago, with Gen. Leonard Wood as Governor, and when the other provinces were evacuated by the Spanish troops an army officer was appointed to administer each one.

There was some friction and distrust between the Cubans and the Americans from the time of the landing of Gen. Shafter's army at Santiago. The American soldiers complained that their allies did not do their share of work on intrenchments and transport, and conceived a poor opinion, both of their fighting qualities and of their moral character, finding some of them predacious and cruel to the Spaniards who fell into their hands. When a body of Cuban guerrillas closed in on the survivors of Cervera's fleet who went ashore near Cabrera, pre-

venting them from escaping inland, they were seen to fire at sailors clinging to the wrecks, upon which the American officers who were endeavoring to save the drowning men threatened to throw shells among the Cubans if they did not desist from such inhuman actions. Gen. Garcia's troops were posted in the siege of Santiago at the extreme right of the American line, and in the end took the Spanish outposts on the north and the villages of Dos Caminos and Cobre, completing the circle of investment, but not until Col. Escario had slipped through with 2,000 Spanish troops from Manzanillo. Gen. Francisco Estrada, who afterward joined Gen. Garcia, harried the Spanish column on the march, with the assistance of some of Garcia's cavalry, but Gen. Garcia himself did not move out to meet the Spaniards, giving as his reason that he was unwilling to abandon his position on the right flank of the American army, where, after extending his line to the bay, he could prevent a sortie of the besieged toward Holguin or assist the Cuban forces of Camaguey and Holguin to prevent the entrance of a large relieving force of Spaniards that Gen. Mario was expected to bring from Holguin. When Santiago surrendered, Gen. Shafter was unwilling to admit Gen. Garcia to any share of the triumph, the Cubans having taken a minor part in the victory. He feared that the rude and undisciplined negroes would commit acts of pillage, or that they and the Spaniards would come into collision. Their leaders, moreover, would be tempted to aspire to political control and to pursue their old enemies with acts of confiscation and revenge, for which the United States would be held responsible. Gen. Garcia, not being invited to take part in receiving the surrender, and the Cubans being forbidden to enter the city, he marched away with his forces, taking them back to their own districts on the plea that Gen. Miles had given him no orders to co-operate in further operations. The Cubans generally, while grateful to the Americans for liberating their island from Spanish rule, felt deeply wronged through the dilatory and unsympathetic way in which the war was carried on. The pacific blockade, especially, is said to have caused more frightful suffering and mortality among their people than Gen. Weyler's order of reconcentration. The evils of famine fell upon the native country population, not upon the Spanish troops or the Spanish residents of the cities, for whom the food that was on the island was collected and more was brought in by blockade runners. After the conclusion of the armistice the Cuban army was left in a desperate case. Its commanders accepted the armistice and abstained from further hostilities against the Spanish. The Provisional Government, which had failed to obtain recognition, was powerless, nor was there any other authority that could raise loans to buy food for the soldiers or the starving civil population. The troops had subsisted by levying contributions from the owners of plantations, but this resource was now cut off. Some of them resorted to lawless pillaging, from which they were not restrained by the Spanish military authorities, which restricted their jurisdiction to the garrison towns pending evacuation. They refused to permit Red Cross agents or other almoners of American charity to import food for the Cuban army. Toward the end of November the situation was relieved through the distribution among the Cuban forces and the starving inhabitants of 2,000,000 rations sent by the United States Government. A previous cargo had been brought back to the United States because the Spanish authorities would not let it pass the customs barriers without paying duties. In the neighborhood of Havana the Cubans fared not so badly as in other parts of the island, as their sympathizers in

the city were suffered to smuggle provisions out to them. Although troubled at being neglected by the Americans and by the greater cordiality shown toward the Spanish soldiers than to themselves, the Cuban army, after the earlier expressions of doubt and distrust from Gen. Garcia and Gen. Gomez, followed those leaders in accepting every act of the United States Government as intended to promote the speedy realization of their hope of independence. Some of the leading Cubans advocated the ultimate annexation of the country to the United States, but not without a preliminary trial of independence.

The Cuban Assembly elected by the army met at Santa Cruz, and on Nov. 7 chose Domingo Mendez Capote as President, Fernando Freyre de Andrade as Vice-President, and Manuel M. Coronado and Dr. Porfirio Caliente as Secretaries—not of the Provisional Government, which was regarded as defunct, but to carry on the general business during the adjournment of the General Assembly of the Army, which was the only Cuban authority recognized, except the commander-in-chief, who asserted rival and conflicting powers. Both made it their chief business to raise money to pay off the Cuban soldiers, those who had served two years or more, of whom there were 20,000 in a total number of 36,000. Gen. Gomez would not disband the army or resign his post as commander-in-chief until the troops had received some pay for their services, and he endeavored to obtain an advance from the United States Government, which finally appropriated \$3,000,000 for this purpose. He appealed to the Cubans when the Americans took control of the Government after the evacuation, in accordance with the terms of the treaty, to give their efforts to the establishment of law and order, that Cuba might be the sooner free and independent, declaring his conviction that when a strong and stable Government could be established in Cuba the American army would depart, leaving Cubans to govern themselves and their country.

The Spanish Evacuation.—A Spanish-American commission arranged the details of the evacuation of Cuba, which was delayed on account of the difficulty the Spanish Government had in procuring steam transportation for about 180,000 officers and men of the army, and 15,000 civilian and military employees and their families. The American commissioners were Major-Gen. James F. Wade, Rear-Admiral William T. Sampson, and Major-Gen. Matthew C. Butler. A like commission performed the same service in Puerto Rico, consisting of Major-Gen. John R. Brooke, Rear-Admiral Winfield S. Schley, and Brig.-Gen. William W. Gordon. The repatriation of the soldiers who surrendered at Santiago was carried out according to the terms of the capitulation by the United States Government, which awarded the contract to the Spanish Transatlantic Company. The Puerto Rican joint commission speedily accomplished its task, and by Oct. 18 the evacuation of the island was complete. The transfer of Havana to the American authorities took place at last on Jan. 1, 1899, when Gen. Jimenez Castellanos, who succeeded Gen. Blanco as Captain General, and the Spanish military commissioners formally surrendered the government to the United States commissioners, who resigned it into the hands of Major-Gen. John R. Brooke, Military Governor of Cuba. Major-Gen. Fitzhugh Lee was appointed Governor of the city and province of Havana.

The Treaty of Peace.—In accordance with the peace protocol, the governments of the United States and Spain each appointed five commissioners to meet in Paris for the negotiation of a treaty of peace. On Aug. 26 President McKinley named

William R. Day, chairman, Senator Cushman K. Davis, Senator William P. Frye, Whitelaw Reid, and Justice Edward D. White. Justice White having declined to serve, Senator George Gray was appointed on Sept. 9. The Spanish commissioners were Eugenio Montero Rios, chairman, Buenaventura d'Abarzuza, José de Garnica, Wenceslao Ramirez de Villa Urrutia, and Gen. Rafael Cerero. The Peace Commission came together on Oct. 1. At the first meeting the Spanish commissioners made a demand that the American forces be withdrawn from Manila and the administration handed over to the Spanish officials prior to the discussion of other matters. This demand the American representatives refused to entertain. The Cuban question was the first matter of discussion. The Spanish commissioners contended that, since there was no Cuban state, sovereignty over Cuba must pass to the United States, and that this Government was responsible for the Cuban debt secured on the customs of the island. The United States commissioners refused to accept for their Government the capacity of sovereign over Cuba, the war having been waged, not for territorial aggrandizement, which was disclaimed in the beginning, but for liberation and order. It was not till Oct. 27 that the Spanish commissioners accepted the Cuban articles. A contest then arose over the demands of the United States regarding the Philippines, which were presented on Oct. 31. These comprised the cession of the entire archipelago, the United States Government undertaking to reimburse Spain to the extent of her pacific expenditures for permanent improvements. The Spanish Government, on Nov. 4, rejected this proposition, asserting that the third article of the protocol reserved sovereignty over the Philippines in accordance with its previous instructions to M. Cambon, to which the American Government had made no objection. The capitulation of Manila on the day subsequent to the signing of the protocol was void, in its opinion, and the holding of Spanish prisoners and the seizure of the administration and public moneys it held to be breaches of international law, by the commission of which the United States had prevented Spain from quelling the insurrection. The question had been discussed during the negotiation of the protocol, when M. Cambon secured the substitution in the third article for the word "possession" the more elastic term "disposition." The Spanish Government, in the note of Aug. 7, took the view that the temporary occupation of Manila should constitute a guarantee, and declared that it did not renounce the sovereignty of Spain over the archipelago, but would leave it to the negotiators to decide what reforms were desirable and suitable for the natives. The United States Government would not accept this reservation, but embodied in the protocol the precise terms upon which it was willing to negotiate as M. Cambon explained in forwarding it. The American commissioners would not, therefore, admit that any conditions or reservations were attached to the protocol. On instructions from their Government they demanded the cession of the islands in positive terms, refusing to discuss any question in connection with them besides the manner of their surrender and the compensation for improvements. On Nov. 16 the Spanish commissioners reaffirmed the position of their Government as to the discussion of sovereignty, and insisted that by the very terms of the protocol a demand extending to the relinquishment of Spanish sovereignty was precluded, offering to submit the interpretation of the third article to arbitration. The American commissioners held that the words were quite plain. On Nov. 21 they submitted a final offer to pay \$20,000,000 as a lump sum to cover all ex-



CUSHMAN K. DAVIS.



WILLIAM P. FRYE.



WILLIAM R. DAY.



GEORGE GRAY.



WHITELAW REID.

THE UNITED STATES PEACE COMMISSIONERS.

penditures of Spain for betterments and to admit Spanish merchandise and Spanish ships to the Philippines on the same terms as those of the United States, declaring it to be the policy of the United States to maintain in those islands an open door for the commerce of all nations. The American commissioners offered further to insert in the treaty a provision for the mutual relinquishment of all American and Spanish claims for indemnity, either national or private, that had arisen since the opening of hostilities. That these proposals were final and irreducible was conveyed in a hope expressed by the American commissioners that their acceptance, together with that of the stipulations respecting Cuba and Puerto Rico, the other islands of Spain in the West Indies and Guam, in the form which had been provisionally agreed, would be signified on or before Nov. 28. On that date the acceptance was given, accompanied by a memorandum setting forth that, compromise and arbitration having been rejected and a prompt answer made the condition of the continuation of negotiations, the Madrid Government had instructed its representatives to accept the victor's terms, however harsh, to save further loss and injury to Spain, recognizing the impossibility of further resisting her powerful antagonist. On Dec. 1 the Spanish commission made a proposition to constitute a technical commission, an American, an Englishman, and a Frenchman to be selected by the United States, a Spaniard, an Englishman, and a Frenchman by Spain, and a German by both governments—who should investigate the explosion of the "Maine." When the American commissioners rejected this proposition and the President afterward in his annual message spoke of the catastrophe as suspicious, the Spanish commissioners in their memorandum protested that the United States refused to Spain the right possessed by a criminal of defending himself, and appealed to the world to decide whether those are responsible who desire the truth or those refusing to seek it.

The treaty was finally drawn up on Dec. 10 and was signed the same evening. The text is given below:

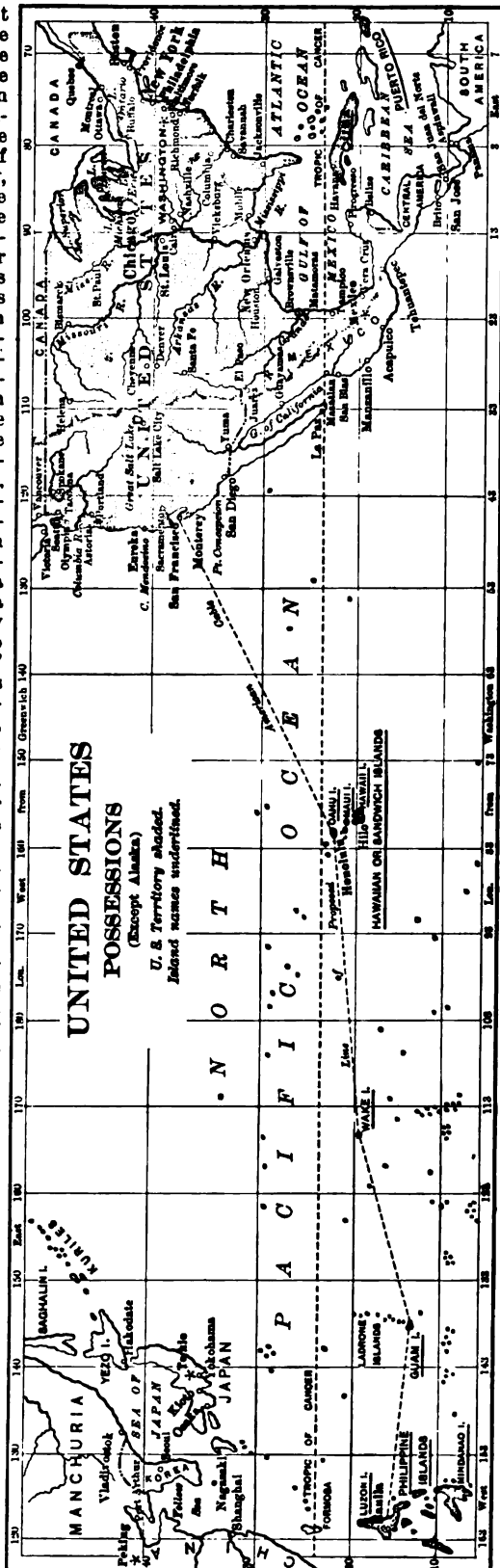
ARTICLE I.—Spain relinquishes all claim of sovereignty over and title to Cuba.

And as the island is, upon its evacuation by Spain, to be occupied by the United States, the United States will, so long as such occupation shall last, assume and discharge the obligations that may under international law result from the fact of its occupation for the protection of life and property.

ART. II.—Spain cedes to the United States the island of Puerto Rico and other islands now under Spanish sovereignty in the West Indies, and the island of Guam in the Marianas or Ladrões.

ART. III.—Spain cedes to the United States the archipelago known as the Philippine Islands, and comprehending the islands lying within the following lines:

A line running from west to east along or near the twentieth parallel of north latitude, and through the middle of the navigable channel of Bacht, from the one hundred and eighteenth (118th) to the one hundred and twenty-seventh (127th) degree meridian of longitude east of Greenwich, thence along the one hundred and twenty-seventh (127th) degree meridian of longitude east of Greenwich to the parallel of four degrees and forty-five minutes (4:45) north latitude, thence along the parallel of four degrees and forty-five minutes (4:45) north latitude to its intersection with the meridian of longitude one hundred and nineteen degrees and thirty-five minutes (119:35) east of Greenwich, thence along the meridian of longitude one hundred and nineteen degrees and thirty-five minutes



(119:35) east of Greenwich to the parallel of latitude seven degrees and forty minutes (7:40) north, thence along the parallel of latitude seven degrees and forty minutes (7:40) north to its intersection with the one hundred and sixteenth (116th) degree meridian of longitude east of Greenwich, thence by a direct line to the intersection of the tenth (10th) degree parallel of north latitude with the one hundred and eighteenth (118th) degree meridian of longitude east of Greenwich, and thence along the one hundred and eighteenth (118th) degree meridian of longitude east of Greenwich to the point of beginning.

The United States will pay to Spain the sum of twenty million dollars (\$20,000,000) within three months after the exchange of the ratifications of the present treaty.

ART. IV.—The United States will, for ten years from the date of exchange of ratifications of the present treaty, admit Spanish ships and merchandise to the ports of the Philippine Islands on the same terms as ships and merchandise of the United States.

ART. V.—The United States will, upon the signature of the present treaty, send back to Spain, at its own cost, the Spanish soldiers taken as prisoners of war on the capture of Manila by the American forces. The arms of the soldiers in question shall be restored to them.

Spain will, upon the exchange of the ratifications of the present treaty, proceed to evacuate the Philippines, as well as the island of Guam, on terms similar to those agreed upon by the commissioners appointed to arrange for the evacuation of Puerto Rico and other islands in the West Indies under the protocol of August 12, 1898, which is to continue in force till its provisions are completely executed.

The time within which the evacuation of the Philippine Islands and Guam shall be completed shall be fixed by the two governments. Stands of colors, uncaptured war vessels, small arms, guns of all calibers, with their carriages and accessories, powder, ammunition, live stock, and materials and supplies of all kinds belonging to the land and naval forces of Spain in the Philippines and Guam remain the property of Spain. Pieces of heavy ordnance, exclusive of field artillery, in the fortifications and coast defenses shall remain in their emplacements for the term of six months, to be reckoned from the exchange of ratifications of the treaty; and the United States may in the meantime purchase such material from Spain if a satisfactory agreement between the two governments on the subject shall be reached.

ART. VI.—Spain will, upon the signature of the present treaty, release all prisoners of war and all persons detained or imprisoned for political offenses in connection with the insurrections in Cuba and the Philippines and the war with the United States.

Reciprocally the United States will release all persons made prisoners of war by the American forces, and will undertake to obtain the release of all Spanish prisoners in the hands of the insurgents in Cuba and the Philippines.

The Government of the United States will at its own cost return to Spain and the Government of Spain will at its own cost return to the United States, Cuba, Puerto Rico, and the Philippines, according to the situation of their respective homes, prisoners released or caused to be released by them, respectively, under this article.

ART. VII.—The United States and Spain mutually relinquish all claims for indemnity, national and individual, of every kind, of either Government, or of its citizens or subjects, against the other Government, which may have arisen since

the beginning of the late insurrection in Cuba and prior to the exchange of ratifications of the present treaty, including all claims for indemnity for the cost of the war. The United States will adjudicate and settle the claims of its citizens against Spain relinquished in this article.

ART. VIII.—In conformity with the provisions of Articles I, II, and III of this treaty, Spain relinquishes in Cuba and cedes in Puerto Rico and other islands in the West Indies, in the island of Guam, and in the Philippine archipelago all the buildings, wharves, barracks, forts, structures, public highways and other immovable property which in conformity with law belong to the public domain and as such belong to the Crown of Spain.

And it is hereby declared that the relinquishment or cession, as the case may be, to which the preceding paragraph refers, can not in any respect impair the property or rights which by law belong to the peaceful possession of property of all kinds, of provinces, municipalities, public or private establishments, ecclesiastical or civic bodies or any other associations having legal capacity to acquire and possess property in the aforesaid territories renounced or ceded, or of private individuals, of whatsoever nationality such individuals may be.

The aforesaid relinquishment or cession, as the case may be, includes all documents exclusively referring to the sovereignty relinquished or ceded that may exist in the archives of the peninsula. Where any document in such archives only in part relates to said sovereignty a copy of such part will be furnished whenever it shall be requested. Like rules shall be reciprocally observed in favor of Spain in respect of documents in the archives of the islands above referred to.

In the aforesaid relinquishment or cession, as the case may be, are also included such rights as the Crown of Spain and its authorities possess in respect of the official archives and records, executive as well as judicial, in the islands above referred to, which relate to said islands or the rights and property of their inhabitants. Such archives and records shall be carefully preserved, and private persons shall, without distinction, have the right to require, in accordance with the law, authenticated copies of the contracts, wills, and other instruments forming part of notarial protocols or files, or which may be contained in the executive or judicial archives, be the latter in Spain or in the islands aforesaid.

ART. IX.—Spanish subjects, natives of the peninsula, residing in the territory over which Spain by the present treaty relinquishes or cedes her sovereignty, may remain in such territory or may remove therefrom, retaining in either event all their rights of property, including the right to sell or dispose of such property or of its proceeds; and they shall also have the right to carry on their industry, commerce, and professions, being subject in respect thereof to such laws as are applicable to other foreigners. In case they remain in the territory they may preserve their allegiance to the Crown of Spain by making, before a court of record, within a year from the date of the exchange of ratifications of this treaty, a declaration of their decision to preserve such allegiance; in default of which declaration they shall be held to have renounced it and to have adopted the nationality of the territory in which they may reside.

The civil rights and political status of the native inhabitants of the territories hereby ceded to the United States shall be determined by the Congress.

ART. X.—The inhabitants of the territories over which Spain relinquishes or cedes her sovereignty shall be secured in the free exercise of their religion.

ART. XI.—The Spaniards residing in the territories over which Spain by this treaty cedes or relinquishes her sovereignty shall be subject in matters civil as well as criminal to the jurisdiction of the courts of the country wherein they reside, pursuant to the ordinary laws governing the same, and they shall have the right to appear before such courts and to pursue the same course as citizens of the country to which the courts belong.

ART. XII.—Judicial proceedings pending at the time of the exchange of ratifications of this treaty in the territories over which Spain relinquishes or cedes her sovereignty shall be determined according to the following rules:

First—Judgments rendered either in civil suits between private individuals or in criminal matters, before the date mentioned, and with respect to which there is no recourse or right of review under the Spanish law, shall be deemed to be final, and shall be executed in due form by competent authority in the territory within which such judgments should be carried out.

Second—Civil suits between private individuals which may on the date mentioned be undetermined shall be prosecuted to judgment before the court in which they may then be pending, or in the court that may be substituted therefor.

Third—Criminal actions pending on the date mentioned before the Supreme Court of Spain against citizens of the territory which by this treaty ceases to be Spanish shall continue under its jurisdiction until final judgment; but, such judgment having been rendered, the execution thereof shall be committed to the competent authority of the place in which the case arose.

ART. XIII.—The rights of property secured by copyrights and patents acquired by Spaniards in the island of Cuba and in Puerto Rico, the Philippines, and other ceded territories, at the time of the exchange of the ratification of this treaty, shall continue to be respected. Spanish scientific, literary, and artistic works not subversive of public order in the territories in question shall continue to be admitted free of duty into such territories for the period of ten years, to be reckoned from the date of the exchange of the ratifications of this treaty.

ART. XIV.—Spain shall have the power to establish consular officers in the ports and places of the territories the sovereignty over which has either been relinquished or ceded by the present treaty.

ART. XV.—The Government of each country will, for the term of ten years, accord to the merchant vessels of the other country the same treatment in respect to all port charges, including entrance and clearance dues, light dues, and tonnage duties, as it accords to its own merchant vessels not engaged in the coastwise trade.

This article may at any time be terminated on six months' notice given by either Government to the other.

ART. XVI.—It is understood that any obligations assumed in this treaty by the United States with respect to Cuba are limited to the time of its occupancy thereof; but it will upon the termination of such occupancy advise any Government established in the island to assume the same obligations.

ART. XVII.—The present treaty shall be ratified by the President of the United States, by and with the advice and consent of the Senate thereof, and by her Majesty the Queen Regent of Spain; and the ratifications shall be exchanged at Washington within six months from the date hereof, or earlier, if possible.

The Supreme Court.—The result of the work of the United States Supreme Court for the year is as follows: The total number of cases on the docket

for the term beginning in October, 1897, was 685; and of this number 372 were disposed of during the term. The number actually considered by the court was 311, of which 179 were argued orally and 132 submitted on printed arguments. Among the cases decided of general interest and importance were the following:

Constitution of Mississippi.—In *Williams vs. Mississippi*, decided April 25, 1898, the provisions of the Constitution of Mississippi making ability to read any section of the Constitution or to understand it when read a necessary qualification for a legal voter, and making it a necessary qualification for a grand or petit juror that he shall be able to read and write, and other provisions in regard to elections which do not on their face discriminate between the white and negro races, were held not to amount to a denial of the equal protection of the law secured by the fourteenth amendment to the Constitution, and the judgment of the Supreme Court of Mississippi was affirmed.

Infected Cattle.—In the case of the *Missouri, Kansas and Texas Railway Co. vs. Haber*, the Court affirmed the constitutionality and validity of the law of Kansas prohibiting the transportation into the State of cattle affected with Texas fever and providing for a civil action for damages in case of the infraction of the law, it was held not to be in any just sense a regulation of commerce among the States. The provision in the Kansas act is in aid of the objects which Congress had in view when it passed the animal industry act of May 29, 1884.

Physicians.—The decision in *Benjamin Hawker vs. New York* affirmed the constitutionality of the act of the New York Legislature prohibiting persons who have been convicted of and punished for a crime from practicing medicine in the State, in the case of one who had been convicted of a felony prior to its enactment. Its unconstitutionality was alleged on the ground of a conflict with the clause of the Constitution forbidding a State to pass "any bill of attainder, *ex post facto* law, or law impairing the obligation of contracts." This legislation was held not as an imposition of additional penalty, but as prescribing qualifications to be possessed by those who practice medicine. Justices Harlan, Peckham, and McKenna dissented.

Confederate Bonds.—On May 31, 1898, an opinion was rendered in the case of *Baldy vs. Hunter*, administrator, affirming the validity of investments in Confederate bonds during the civil war by Hunter as guardian; both guardian and ward residing within the Confederate lines, and being under subjection to the Confederate States.

Using Official Position.—In *Payne vs. Robertson* the court held that a United States deputy marshal who had, as such, entered Oklahoma prior to the opening of the lands for settlement, was, because of his official character, disqualified from making a homestead entry immediately upon the lands being opened for settlement.

Liquor Laws.—The case of *Rhodes vs. Iowa* involved the construction of the law of Iowa forbidding the sale of liquors in the State, and dealt with the construction of the State law under the Wilson act of Congress of Aug. 8, 1890. The opinion rendered was that the State law is an infringement of the constitutional prerogative of the United States regarding interstate commerce, so far as it affected interstate commerce transportation; and that imported liquors upon arrival within the jurisdiction of the State become at once subject to its jurisdiction. Justices Gray, Harlan, and Brown dissented on the ground that the State law was valid as a police regulation.

In the case of *Vance vs. Vandercook Company* the South Carolina liquor law was again made the

subject of a decision. The law had been amended after the Supreme Court decision in *Scott vs. Donald* (165 U. S. 58) and changed in many important particulars. The new law attempted to eliminate the features of the old law discriminating against other States in the shipment of liquor to individuals for their own use in South Carolina; but while this inhibition was eliminated and the privilege restored in the new law, it was coupled with conditions of inspection which it was urged still amounted to discrimination. The court accepted this view of the case, holding that the inspection provision of the law was tantamount to a denial of the right of interstate commerce, and therefore antagonistic to the Constitution of the United States. The court held, however, that the portion of law regulating the sale of original packages within the State was valid. Chief-Justice Fuller and Justices Shiras and McKenna dissented as to a portion of the opinion. They took the position that the law in its entirety is in violation of the Constitution.

Suicide.—In the case of *Ritter vs. Mutual Life Insurance Company of New York*, decided Jan. 17, 1898, the question whether the heirs of a man who commits suicide when in sound mind can recover an insurance policy, was involved. Mr. Runk, of Philadelphia, committed suicide within a year after increasing his insurance to the extent of \$200,000, making an aggregate insurance of \$500,000 upon his life. The New York company carried \$75,000, which it refused to pay, on the ground that Runk was sane when he took his life. It was shown that he had written a letter the day before his death, saying that it was his purpose to put an end to his life so that his life insurance money could be collected for the payment of his debts. The court held that no insured person committing suicide and found to be of sound mind could recover upon his policy.

Oleomargarine.—In the cases of *Schallenberger vs. Pennsylvania* and *Collins vs. New Hampshire* the court, May 23, 1898, decided the oleomargarine laws of Pennsylvania and New Hampshire to be unconstitutional. In Pennsylvania George Schallenberger, George E. Paul, and J. Otis Paul were prosecuted in the State courts on the charge of violating the law prohibiting the introduction of oleomargarine into the State. The court held the law to be invalid under the Federal Constitution, on the ground that it infringed the provision in regard to interstate commerce. Justice Peckham, in delivering the opinion, said: "The act of the Legislature of Pennsylvania under consideration, to the extent that it prohibits the introduction of oleomargarine from another State and its sale in the original package, as described in the special verdict, is invalid." In New Hampshire the law provides that when the oleomargarine is colored pink there shall be no prohibition. Justice Peckham said this was a mere evasion of the direct prohibition contained in the Pennsylvania statute, and was invalid on the same ground. Justices Harlan and Gray dissented.

Freight Rate Law.—March 7, 1898, the court decided the cases of *Smyth vs. Ames*, *Smyth vs. Smith*, and *Smyth vs. Higginson*. These suits were instituted to test the validity of a law passed by the Nebraska Legislature in 1893, prescribing the maximum rates for transportation of freight by railroads within the State. The law was declared unconstitutional. It is settled that a railroad corporation is a person within the meaning of the fourteenth amendment declaring that no State shall deprive any person of property without due process of law, nor deny to any person within its jurisdiction the equal protection of the laws. A State enactment, or regulations made under the authority of a State enactment, establishing rates for the transportation of persons or property by

railroad that will not admit of the carrier earning such compensation as under all circumstances is just to it and to the public, would deprive such carrier of its property without due process of law, and deny to it the equal protection of the laws, and would therefore be repugnant to the fourteenth amendment to the Constitution of the United States.

The Eight-Hour Law.—The case of *Holden vs. Hardin* involved the constitutionality of the law of Utah fixing a day's work in mines and smelters at eight hours a day. It was held that the provisions of the law did not violate the fourteenth amendment to the Constitution, and were a valid exercise of the police power of the State. Justice Brown said that, in his opinion, it was not the intention of the court to pass generally upon the constitutionality of eight-hour laws; but that in so far as State laws were exerted for the protection of the lives, the health, or the morals of a community there could be no doubt of their propriety or of their constitutionality. There could be no doubt of the exceptional and unhealthful character of work in smelters or mines, because of bad air, high temperature, and obnoxious gases; and hence the wisdom of the State legislation. Justices Brewer and Peckham dissented.

Inheritance Tax.—The case of *Magoun vs. Illinois Trust and Savings Bank*, decided April 25, 1898, involved the constitutionality of the inheritance tax law of Illinois. One of the counsel for the defendant was ex-President Harrison. The State of Illinois imposed an inheritance tax which varied according to the amount of the legacy and according to the degree of relationship of the legatee. The question was decided in favor of the constitutionality of the law, and is a matter of national interest, as it has a bearing upon similar legislation in other States. Justice Brewer dissented from the opinion so far as it sustained the constitutionality of that part of the law which grades the rate of the tax upon legacies to strangers by the amount of such legacies.

Inspection Laws.—The court, May 31, has decided the case of the *Pataasco Guano Company vs. North Carolina Board of Agriculture*. The case involved the validity of the North Carolina law providing for the inspection of fertilizers, and sought to enjoin the collection of the charge for such inspections. The opinion sustained the law. Inspection laws are not in themselves regulations of commerce. When their object is to protect the community, they come within the police power of the State. Justices Harlan and White dissented.

Contracts with Railroad Companies.—The case of the *Chicago, Milwaukee and St. Paul Railway Company vs. Solan* involved the constitutionality of the Iowa law rendering void any contract with a railroad company exempting it from liability which would have existed if no contract had been made. Solan sued in the State courts to recover damages for injuries suffered, and was awarded \$1,000, although his contract with the company limited its liability to \$500. The decision upheld the State law, as not interfering with interstate commerce and within the province of State legislation.

Civil Service.—In the case of *Kipley vs. Illinois*, decided April 18, 1898, in regard to the constitutionality of the civil service law of Illinois, the court held that it had no jurisdiction. The question whether the Illinois civil service act was unconstitutional applied to the State Constitution and not to the Constitution of the United States. The action of the Supreme Court of Illinois did not raise a question of a Federal nature.

Citizenship.—The case of the *United States vs. Wong-Kim-Ark* was decided. The defendant was

born in California of Chinese parents and returned to China and was refused readmission to the United States. The court held that he was a citizen by the fourteenth amendment and should be admitted.

Indian Depredation Claims.—In *United States and Comanche Indians vs. Kemp* the judgment of the Court of Claims was affirmed by a divided court. The case turned on a question involving the validity of several million dollars of claims growing out of alleged Indian depredations. The Government contended that these claims, under the Indian treaties, should have been presented within the proper time to the tribes. The Court of Claims held that this was not necessary.

Death of Commissioner of Patents.—In *United States ex rel. Bernardin vs. Butterworth* it was held that a suit in mandamus to compel the Commissioner of Patents to issue a patent abates by the death of the commissioner, and can not be revived so as to bring in his successor, although the latter gives his consent.

Bequest to Smithsonian Institution.—The case of *Smithsonian Institution vs. Meech* involved the right of a husband to devise property held as a trust in his wife's name. Robert S. Avery, of Washington, after giving in his will \$1,000 to the relatives of his wife, whose death had occurred before his, left the residue of his property to the Smithsonian Institution. The principal part of this property was a lot of land in Washington in Mrs. Avery's name, and the will was attacked on the ground that he could not dispose of property whose title was in his wife's name. The Court did not sustain this view. Justice Brewer said: "It is true that when the consideration is paid by a husband and the conveyance made to his wife there is a presumption that such a conveyance was intended for her benefit; but this is not a presumption of law but of fact, and can be overthrown by proof of the real intent of the parties."

The Antitrust Law.—The case of *United States vs. Joint Traffic Association et al.* was argued on Feb. 24 and 25, 1898, and decided Oct. 24. It was brought under the antitrust law to have the agreement creating the Joint Traffic Association declared illegal and its further execution enjoined. The joint traffic agreement went into effect Jan. 1, 1896. Under it 81 railroad companies, constituting 9 trunk line systems, practically controlling the business of railroad transportation between Chicago and the Atlantic coast, entered into an agreement for the purpose of maintaining rates and fares on all competitive traffic. The court held, Justice Peckham delivering the opinion, following the *Trans-Missouri* case, that the joint traffic agreement was in violation of the antitrust law, and therefore void; and it further held that Congress, in dealing with interstate commerce, and in the course of regulating it in the case of railroad corporations, has the power to say that no contract or combination shall be legal which shall restrain trade and commerce by shutting out the operation of the general law of competition. Justices Gray, Shiras, and White dissented; Justice McKenna took no part in the case.

Live Stock Exchange.—The case of *Hopkins vs. United States* (the Kansas City Live Stock Exchange) was a prosecution under the antitrust act of July 2, 1890. The court held that the association did not come within the terms of the law, because it did not appear that the defendants were engaged in interstate commerce or that their agreements were in restraint of any such commerce. Justice Harlan delivered a dissenting opinion.

Alaskan Seal Fisheries.—Among the more important litigation concluded during the year was

that of the *United States vs. The North American Commercial Company*. By an indenture, bearing date March 12, 1890, made by the Secretary of the Treasury with this company, it became the lessee of the seal fisheries on the Pribilof Islands of St. George and St. Paul, in Alaska, for twenty years, at an annual rental of \$60,000, in addition to which the company agreed to pay a revenue tax or duty of \$2 upon each fur-seal skin taken and shipped, and also the further sum of \$7.62½ for each fur-seal skin so taken and shipped. The right of the company to engage in the business of taking fur seals on these islands was exclusive. An action was brought by the United States against the company in the United States circuit court at New York city to recover the annual rental, as defined in the lease, for the year ending April 1, 1894, which amounted, according to the claim of the Government, to \$132,187.50. The company disputed its obligation to pay this rental upon the ground that by the convention or agreement between the United States and the Government of Great Britain, commonly called the *modus vivendi*, established during the pendency of the arbitration between those two governments relating to the Bering Sea controversy and the preservation of the seals resorting to those waters, the United States prohibited the company from taking in excess of 7,500 seals in the year mentioned. The company further set up a claim for specific damages against the United States by reason of its interference with its alleged right under the lease, the amount of said counterclaim amounting to \$287,725 for the skins it could have taken during the season of 1893 had not the United States, under the *modus vivendi*, prevented it from so doing. The case having been tried in the circuit court without a jury, that court awarded to the United States the sum of \$94,687.50, with interest. The said court, as to the counterclaim of the company, decided that by reason of the breach of the lease by the United States prohibiting the defendant from taking any seal skins during 1893, the United States was liable to the company for the sum of \$142,187.50, but that on account of the failure of the company to present its claim and have it disallowed by the accounting officers of the Treasury, it could not be allowed as a counterclaim or credit in that suit, and was accordingly dismissed, but not on the merits, and without prejudice to the right of the company to enforce its claim by any other proper legal proceeding. The case having been appealed and removed to the Supreme Court, it was decided substantially in favor of the Government, the amount of the judgment in the case pending being reduced, however, to \$76,687.50.

UNITED STATES WAR RECORD. In connection with the details given in the article immediately preceding as to the extent of military and naval operations during the war with Spain, it is of interest to note the record of each organization, both Federal and State. The State records, with the exception of Idaho, Kentucky, and Nevada, are complete. This is due to the prompt and effective responses made by Governors and members of their military staffs. In the case of States not represented, five appeals were made for the necessary information, which, up to time of going to press, has not been forthcoming. In numerous instances, among the most populous States, much time and labor has been cheerfully expended by adjutants-general in order that a fair showing of the record might be made.

The fullness of the record given below for Federal troops has been made possible by prompt and effective action on the part of Adjutant-General Henry C. Corbin and Assistant-Adjutant-General W. H. Carter, both of whom have cheerfully placed

at the disposal of the "Annual Cyclopædia" all available data bearing directly on the subject.

The naval record shown in this article has been prepared largely from official data, obtained by courtesy of the Navy Department at Washington and commanders serving on many of the vessels mentioned as being on active service during the campaign.

It will be observed that some regiments and some vessels occupy a seemingly disproportionate space in the record. When this happens no slight is intended. In some instances the service of regiment or ship has been devoid of incident; in others the record, although earnestly sought for, has not been secured.

Endeavor has been made to systematize, as far as possible, the entries for organizations and vessels. Where certain information is lacking it may be taken for granted that the required facts were not within reach.

Title.—As the title or name by which organizations are commonly known does not always correspond with the official title, it has been deemed advisable to give the latter a separate place.

Date of Organization.—Usually the date given is that on which an organization was first brought together. Regiments have frequently been disbanded and reorganized, but the traditions of the corps always remain; hence it seems best to give original dates.

Strength.—Considerable discrepancy has been found between State and Federal figures; but as a rule those given under proper State authority of very recent date have been accepted. This refers, of course, to volunteer organizations.

Stations during War.—Under this heading endeavor has been made to show the various temporary stopping places of organizations in the United States and elsewhere. Sometimes only a part of an organization was stationed at the place indicated. It has been found impossible to complete the showing in greater detail than appears.

Casualties.—The word "casualties" has been somewhat misunderstood by State officials. It is intended, except where the records of engagements are given, that only deaths should be shown. For regiments actually under fire only killed and wounded are shown, as a rule.

In the following military record Federal troops are arranged numerically, by branches of the service. State organizations are arranged alphabetically by States, the organizations in each State being inserted numerically.

The vessels of the navy are arranged alphabetically by fleets or squadrons, the North Atlantic fleet being first, followed by Pacific and Asiatic squadrons and vessels on special duty.

FEDERAL TROOPS.

FEDERAL ORGANIZATIONS.

(Entered in the order in which they appear in the War Department roster, issued March 9, 1899.)

Engineer Battalion.—No detailed report of the services and movements of this battalion is available at present. The nature of the service performed was such that detachments must accompany every considerable body of troops on the march or during active service in the field. In the operations against Santiago two companies (C and E), consisting of 8 officers and 192 men, were with the headquarters of the Fifth Army Corps. One man was wounded. Detachments accompanied the expeditions to Puerto Rico and the Philippines. So far as is known, members of the battalion have also been sent to Hawaii on special service. The Corps of

Engineers was first established during the Revolutionary War, and has continued in existence ever since.

Signal Corps.—The service of the Signal Corps during the last war was largely in detachments, the service being special, like that of the engineers. The strength of the Signal Corps detachment with the Fifth Army Corps in Cuba on June 30 was 7 officers and 81 men. No casualties were reported. Members of the Signal Corps accompanied the Puerto Rican and Philippine expeditions. The establishment of a Signal Corps in connection with the United States army may be said to date from June 27, 1860, when Dr. A. J. Myer was made signal officer.

First Cavalry.—Official title, First Regiment of Cavalry. Organized as First Regiment of Dragoons, March 2, 1833; as First Regiment of Cavalry, Aug. 3, 1861. Served in Mexican War, Civil War, and Indian expeditions. Quartered in Kansas, Arizona, Oklahoma, and Illinois at outbreak of war. Placed under orders for war with Spain, April 15, 1898. Strength in officers and men for war with Spain: 20 officers, 503 men. Commanded by Lieut.-Col. C. D. Viele during war operations. Stationed during war: (1) Chickamauga, Ga.; (2) Cuba. Sent from United States for service in Cuba. Served at La Quasima and in operations against Santiago. Troops A, B, G, and K participated in engagements at La Quasima. Troops A, B, C, D, E, G, H, I, and K took part in subsequent operations against Santiago. Casualties during campaign: 7 men killed, 3 officers and 5 men wounded at La Quasima; 1 officer and 12 men killed, and 47 men wounded at San Juan. The regiment left Cuba for United States Aug. 8, 1898. The First Cavalry took part in the brilliant charge when the Spanish position was carried at La Quasima on June 24, 1898; also at San Juan. The regiment is now stationed in United States.

Second Cavalry.—Official title, Second Regiment of Cavalry. Organized 1836. Served in Florida and Mexican Wars, Civil War, and Indian expeditions. Quartered in New Mexico, Colorado, and Kansas at outbreak of war. Placed under orders for war with Spain, April 15, 1898. Strength in officers and men for war with Spain: 9 officers, 257 men. Commanded by Lieut.-Col. W. A. Rafferty during war operations. Stationed during war: (1) Chickamauga, Ga.; (2) Cuba; (3) Puerto Rico. Sent from United States for service in Cuba and Puerto Rico. Served with Fifth Army Corps in Cuba; with Gen. Miles in Puerto Rico. Troops A, C, D, and F participated in operations against Santiago. Casualties during campaign not reported. The four troops in Cuba were the only mounted troops in Gen. Shafter's command at Santiago. The regiment is now on service in Cuba.

Third Cavalry.—Official title, Third Regiment of Cavalry. Organized as a regiment of mounted riflemen, May 19, 1846; as Third Regiment of Cavalry, Aug. 3, 1861. Served in Mexican War, Civil War, and Indian expeditions. Quartered in Vermont and Missouri at outbreak of war. Placed under orders for war with Spain, April 15, 1898. Strength in officers and men for war with Spain: 23 officers, 433 men. Commanded by Major H. W. Wessells during war operations. Stationed during war: (1) Chickamauga, Ga.; (2) Cuba. Sent from United States for service in Cuba. Troops B, C, E, F, G, H, I, and K participated in engagements at San Juan. Casualties during campaign: 3 men killed, 6 officers and 46 men wounded. The regiment fought for twelve hours at San Juan on July 1, 1898. Four troops returned to Montauk Point from Santiago, Aug. 14, 1898. The regiment is now stationed in United States.

Fourth Cavalry.—Official title, Fourth Regiment of Cavalry. Organized Aug. 3, 1861. Served in Civil War and Indian expeditions. Placed under orders for war with Spain, June 26, 1898. Commanded by Major S. C. Kellogg during war operations. Sent from United States for service in the Philippines. Troops C, E, G, I, K, and L participated in engagements at Manila. Casualties, up to April 4, 1899: 3 men killed, and 1 officer and 16 men wounded. The six troops above mentioned are, at time of going to press, still stationed in the Philippines. Troops A, B, D, F, H, and M are stationed in United States.

Fifth Cavalry.—Official title, Fifth Regiment of Cavalry. Organized 1855. Served in Civil War and Indian expeditions. Sent from United States for service in Puerto Rico. Participated in engagements at Hormigueros. No casualties recorded. The regiment is now on service in Puerto Rico.

Sixth Cavalry.—Official title, Sixth Regiment of Cavalry. Organized as Third Cavalry, May 3, 1861; as Sixth Cavalry, Aug. 10, 1861. Served in Civil War and Indian expeditions. Quartered in Virginia, Kansas, and Nebraska at outbreak of war. Placed under orders for war with Spain, April 15, 1898. Strength in officers and men for war with Spain: 16 officers, 435 men. Commanded by Major T. C. Lebo during war operations. Stationed during war: (1) Chickamauga, Ga.; (2) Cuba; (3) Puerto Rico. Sent from United States for service in Cuba. Troops A, B, C, D, E, F, G, and K participated in engagements at San Juan. Casualties during campaign: 4 men killed, 4 officers and 51 men wounded. The regiment fought for twelve hours at San Juan on July 1, 1898. Troop H served in Puerto Rico. Now stationed in United States.

Seventh Cavalry.—Official title, Seventh Regiment of Cavalry. Organized Dec. 22, 1866. Served in Indian expeditions. Sent from United States for service in Cuba. The regiment is now on service in Cuba.

Eighth Cavalry.—Official title, Eighth Regiment of Cavalry. Organized 1866. Served in Indian expeditions. Sent from United States for service in Cuba. The regiment is now on service in Cuba.

Ninth Cavalry (Colored).—Official title, Ninth Regiment of Cavalry. Organized 1866. Served in Indian expeditions. Quartered in Nebraska, Utah, and Wyoming at outbreak of war. Placed under orders for war with Spain, April 15, 1898. Strength in officers and men for war with Spain: 12 officers, 207 men. Commanded by Lieut.-Col. J. M. Hamilton during war operations. Stationed during war: (1) Chickamauga, Ga.; (2) Cuba. Sent from United States for service in Cuba. Troops A, B, C, D, E, G, H, and K participated in engagements at San Juan and around Santiago. Casualties during campaign: 2 officers and 2 men killed; 2 officers and 18 men wounded. The regiment is now stationed in United States.

Tenth Cavalry (Colored).—Official title, Tenth Regiment of Cavalry. Organized 1866. Served in Indian expeditions. Quartered in Montana at outbreak of war. Placed under orders for war with Spain, April 15, 1898. Strength in officers and men for war with Spain: 27 officers, 453 men. Commanded by Lieut.-Col. T. A. Baldwin during war operations. Stationed during campaign: (1) Chickamauga, Ga.; (2) Cuba. Sent from United States for service in Cuba. Four troops (A, B, E, and I) participated in engagement at La Quasima. Troops C, D, G, and H joined in subsequent operations before Santiago. Casualties during campaign: At La Quasima, 1 man killed, 10 men wounded; at San Juan, 2 officers and 5 men killed, 9 officers and 64 men wounded. Now stationed in United States.

First Artillery.—Official title, First Regiment of Artillery. Organized 1802. Served in War of 1812, Florida and Mexican Wars, and Civil War. Quartered at outbreak of war: Battery E, District of Columbia; Battery K, Texas. Placed under orders for war with Spain, April 15, 1898. Strength in officers and men for war with Spain: Battery E, 3 officers, 79 men; Battery K, 2 officers, 78 men. Commanded by: Battery E, Capt. A. Capron; Battery K, Capt. C. L. Best, during war operations. Stationed during war: (1) Chickamauga, Ga.; (2) Cuba. Batteries E and K took part in operations before Santiago. Casualties (Battery K), 1 man wounded. The regiments, with the exception of Battery E (at Manila), is now stationed in United States.

Second Artillery.—Official title, Second Regiment of Artillery. Organized March 21, 1821. Served in Florida and Mexican Wars, Civil War, and riots. Quartered at outbreak of war: Battery A, Illinois; Battery F, Rhode Island. Placed under orders for war with Spain, April 15, 1898. Strength in officers and men for war with Spain: Battery A, 3 officers and 79 men; Battery F, 2 officers and 77 men. Commanded by: Battery A, Capt. G. S. Grimes; Battery F, Capt. C. D. Parkhurst, during war operations. Stationed during war: (1) Chickamauga, Ga.; (2) Cuba. Battery A participated in engagements at San Juan and around Santiago; Battery F took part in the fight at San Juan. Casualties during campaign: Battery A, 2 men killed, 8 men wounded; Battery F, 1 officer and 2 men wounded. The regiment is now in service in Cuba, with the exception of Batteries N and O, organizing at Fort McHenry, Md.

Third Artillery.—Official title, Third Regiment of Artillery. Organized 1775. Served in all previous wars, also in Indian expeditions. Quartered at outbreak of war: Battery C and F, California. Placed under orders for war with Spain, April 15, 1898. Commanded by: Battery C, Capt. J. M. Calliff; Battery F, Capt. R. D. Potts, during war operations. Stationed during war: (1) Chickamauga, Ga.; (2) Puerto Rico; (3) Philippines. Sent from United States for service in (1) Puerto Rico; (2) Philippines. Participated in engagements: Battery F, near Coamo and near Arbonito, Puerto Rico; Battery C, at Hormigueros and at the Rio Prieto, Puerto Rico; Batteries H and K fought in the trenches before Manila. Batteries G, H, K, and L were sent from United States for service in Manila. Casualties during campaign: 2 officers and 21 men were killed, and 3 officers and 76 men were wounded in these four batteries during engagements between Feb. 4, 1899, and April 4, 1899. They are still serving in Manila. The other batteries are now stationed in United States.

Fourth Artillery.—Official title, Fourth Regiment of Artillery. Organized 1821. Served in Florida and Mexican Wars, Civil War, and Indian expeditions. Placed under orders for war with Spain, April 15, 1898. Stationed during war: (1) Chickamauga, Ga.; (2) Cuba; (3) Puerto Rico. Battery B was in skirmishes near Coamo, Puerto Rico; Battery F is en route to Manila; Batteries G and H took part in operations before Santiago. The regiment, except Battery F, is now stationed in United States.

Fifth Artillery.—Official title, Fifth Regiment of Artillery. Organized May 4, 1861. Served in Civil War. Placed under orders for war with Spain, April 15, 1898. Stationed during war: (1) Chickamauga, Ga.; (2) Puerto Rico. Sent from United States for service at Puerto Rico. Battery D participated in engagements at Hormigueros; a detachment from Battery A took part in a fight at the crossing of the Rio Prieto. Battery F landed in

Cuba, but was not engaged. The regiment is now stationed in United States, except Battery F at Manila, and Batteries B, E, and G at Puerto Rico.

Sixth Artillery.—Official title, Sixth Regiment of Artillery. Organized 1898. Two batteries sent from United States for service in the Philippines. Casualties up to April 4, 1899: 4 men wounded. Batteries D and G are at Manila; Batteries A, I, K, and N ordered to Honolulu; other batteries in United States.

Seventh Artillery.—Official title, Seventh Regiment of Artillery. Organized 1898. Two batteries sent from United States for service in Puerto Rico. The regiment is stationed in United States, with the exception of Batteries C and M, in service in Puerto Rico.

First Infantry.—Official title, First Regiment of Infantry. Organized June 3, 1784. Served in all previous wars, also Indian expeditions. Quartered in California at outbreak of war. Placed under orders for war with Spain, April 15, 1898. Strength in officers and men for war with Spain: 14 officers, 438 men. Commanded by Lieut.-Col. W. H. Bisbee during war operations. Stationed during war: (1) New Orleans; (2) Cuba. Sent from United States for service in Cuba. Companies E and G took part in a fight at Point Arbolites, Cuba, May 12, 1898. The regiment participated in engagements at El Caney and around Santiago. Casualties during campaign: 1 man wounded at El Caney, and 1 man wounded during other engagements. Now on service in Cuba.

Second Infantry.—Official title, Second Regiment of Infantry. Organized March 3, 1791. Served in all previous wars, also Indian expeditions. Quartered in Montana and North Dakota at outbreak of war. Strength in officers and men for war with Spain: 20 officers, 618 men. Commanded by Lieut.-Col. W. M. Wherry during war operations. Stationed during war: (1) Chickamauga, Ga.; (2) Cuba. Participated in engagements at San Juan and fighting around Santiago. Casualties during campaign: 6 men killed and 4 officers and 49 men wounded at San Juan; 1 officer and 1 man killed and 1 officer and 3 men wounded in other engagements. Now stationed in United States.

Third Infantry.—Official title, Third Regiment of Infantry. Organized Nov. 1, 1796. Served in all previous wars, also Indian expeditions. Strength in officers and men for war with Spain: 21 officers, 464 men. Commanded by Col. J. H. Page during war operations. Stationed during war: (1) Mobile, Ala.; (2) Cuba; (3) Philippines. Sent from United States for service in (1) Cuba; (2) Philippines. Participated in engagements at San Juan and El Caney. Casualties during campaign in Cuba: 1 man killed and 12 men wounded at San Juan; 2 men killed and 3 men wounded at El Caney. Casualties at Manila: 2 men killed, and 1 officer and 12 men wounded. Now on service in the Philippines.

Fourth Infantry.—Official title, Fourth Regiment of Infantry. Organized May 30, 1796. Served in all previous wars, also Indian expeditions. Quartered in Illinois at outbreak of war. Strength in officers and men for war with Spain: 21 officers, 444 men. Commanded by Lieut.-Col. A. H. Bainbridge during war operations. Stationed during war: (1) Tampa, Fla.; (2) Cuba; (3) Philippines. Sent from United States for service in (1) Cuba; (2) Philippines. Participated in engagements at San Juan and El Caney. Casualties during Cuban campaign: 1 man killed and 3 men wounded at San Juan; 1 officer and 6 men killed and 2 officers and 33 men wounded at El Caney. Casualties at Manila: 1 officer and 1 man killed, and 3 men wounded. Now on service in the Philippines.

Fifth Infantry.—Official title, Fifth Regiment of Infantry. Organized July 16, 1798. Served in all previous wars, also Indian expeditions. Quartered in Georgia at outbreak of war. Stationed during war: (1) Tampa, Fla.; (2) Cuba. Now on service in Cuba.

Sixth Infantry.—Official title, Sixth Regiment of Infantry. Organized July 16, 1798. Served in War of 1812 and all subsequent wars, also Indian expeditions. Quartered in Kentucky at outbreak of war. Strength in officers and men for war with Spain: 31 officers, 461 men. Commanded by Lieut.-Col. H. C. Egbert during war operations. Stationed during war: (1) Tampa, Fla.; (2) Cuba. Sent from United States for service in Cuba. Participated in engagements at San Juan. Casualties during campaign: 2 officers and 10 men killed, 8 officers and 106 men wounded. Now under orders for service in the Philippines.

Seventh Infantry.—Official title, Seventh Regiment of Infantry. Organized July 16, 1798. Served in War of 1812 and all subsequent wars, also in Indian expeditions. Quartered in Colorado at outbreak of war. Strength in officers and men for war with Spain: 25 officers, 391 men. Commanded by Lieut.-Col. G. S. Carpenter during war operations. Stationed during war: (1) Chickamauga, Ga.; (2) Cuba. Sent from United States for service in Cuba. Participated in engagements at El Caney. Casualties during campaign: 1 officer and 32 men killed; 4 officers and 97 men wounded. Now stationed in United States.

Eighth Infantry.—Official title, Eighth Regiment of Infantry. Organized July 5, 1838. Served in Florida and Mexican Wars, Civil War, and Indian expeditions. Quartered in Wyoming at outbreak of war. Strength in officers and men for war with Spain: 19 officers, 487 men. Commanded by Major C. H. Conrad during war operations. Stationed during war: (1) Chickamauga, Ga.; (2) Cuba. Sent from United States for service in Cuba. Companies A, B, C, D, E, F, and H participated in engagements at El Caney. Casualties during campaign: 6 men killed, 1 officer and 47 men wounded. Company F served in Puerto Rico. Now on service in Cuba.

Ninth Infantry.—Official title, Ninth Regiment of Infantry. Organized Jan. 17, 1799. Served in War of 1812, Mexican War, Civil War, and Indian expeditions. Quartered in New York at outbreak of war. Strength in officers and men for war with Spain: 21 officers, 445 men. Commanded by Lieut.-Col. E. P. Ewers during war operations. Stationed during war: (1) Tampa, Fla.; (2) Cuba. Sent from United States for service in Cuba. Participated in engagements at San Juan. Casualties during campaign: 1 officer and 7 men killed, 25 men wounded. Now on service in the Philippines.

Tenth Infantry.—Official title, Tenth Regiment of Infantry. Organized March 3, 1855. (The Tenth Infantry existed from a much earlier period.) Served in Civil War and Indian expeditions. Quartered in Oklahoma at outbreak of war. Strength in officers and men for war with Spain: 23 officers, 432 men. Commanded by Lieut.-Col. E. R. Kellogg during war operations. Stationed during war: (1) Tampa, Fla.; (2) Cuba. Sent from United States for service in Cuba. Participated in engagements at San Juan. Casualties during campaign: 1 officer and 4 men killed; 5 officers and 35 men wounded. Now on service in Cuba.

Eleventh Infantry.—Official title, Eleventh Regiment of Infantry. Organized May 14, 1861. Served in Civil War and Indian expeditions. Quartered in Missouri and Arkansas at outbreak of war. Commanded by Col. J. D. De Russey during war operations. Stationed during war: (1) Mobile, Ala.:

(2) Puerto Rico. Sent from United States for service in Puerto Rico. Participated in engagements at Hormigueros and the crossing of the Rio Prieto. Casualties during campaign: 1 man killed and 12 men wounded at Hormigueros. Now on service in Puerto Rico.

Twelfth Infantry.—Official title, Twelfth Regiment of Infantry. Organized May 4, 1861. Served in Civil War and Indian expeditions. Quartered in Nebraska at outbreak of war. Strength in officers and men for war with Spain: 20 officers, 564 men. Commanded by Lieut.-Col. Richard Comba during war operations. Stationed during war: (1) Chickamauga, Ga.; (2) Cuba; (3) Philippines. Sent from United States for service in (1) Cuba; (2) Philippines. Participated in engagements at San Juan and El Caney. Casualties during Cuban campaign: 5 men wounded at San Juan; 9 men killed and 2 officers and 29 men wounded at El Caney. Now on service in the Philippines.

Thirteenth Infantry.—Official title, Thirteenth Regiment of Infantry. Organized May 14, 1861. Served in Civil War and Indian expeditions. Quartered in New York at outbreak of war. Strength in officers and men for war with Spain: 24 officers, 441 men. Commanded by Lieut.-Col. W. S. Worth during war operations. Stationed during war: (1) Tampa, Fla.; (2) Cuba. Sent from United States for service in Cuba. Participated in engagements at San Juan. Casualties during campaign: 1 officer and 16 men killed, 6 officers and 86 men wounded. Under orders for service in the Philippines.

Fourteenth Infantry.—Official title, Fourteenth Regiment of Infantry. Organized May 4, 1861. Served in Civil War and Indian expeditions. Commanded by Major C. F. Robe during war operations. Sent from United States for service in the Philippines. Participated in engagements in the trenches at Manila, July 30 to Aug. 5, 1898 (Companies A, C, D, E, F). Casualties up to April 4, 1899: 1 officer and 13 men killed, and 45 men wounded. Now on service in the Philippines, with the exception of Companies B and H, stationed in Alaska.

Fifteenth Infantry.—Official title, Fifteenth Regiment of Infantry. Organized Jan. 11, 1812. Served in Mexican and Civil Wars. Sent from United States for service in Cuba. Now on service in Cuba.

Sixteenth Infantry.—Official title, Sixteenth Regiment of Infantry. Organized March 3, 1869. Served in Indian expeditions. Quartered in Idaho and Washington at outbreak of war. Strength in officers and men for war with Spain: 24 officers, 655 men. Commanded by Col. H. A. Theaker during war operations. Stationed during war: (1) Chickamauga, Ga.; (2) Cuba. Sent from United States for service in Cuba. Participated in engagements at San Juan. Casualties during campaign: 1 officer and 13 men killed, 6 officers and 109 men wounded. Now under orders for service in the Philippines.

Seventeenth Infantry.—Official title, Seventeenth Regiment of Infantry. Organized May 3, 1861. Served in Civil War and Indian expeditions. Quartered in Ohio at outbreak of war. Strength in officers and men for war with Spain: 24 officers, 482 men. Stationed during war: (1) Tampa, Fla.; (2) Cuba; (3) Philippines. Sent from United States for service in (1) Cuba; (2) Philippines. Participated in engagements at San Juan and El Caney. Casualties during Cuban campaign: 3 men killed and 13 men wounded at San Juan; 6 men killed, and 2 officers and 23 men wounded at El Caney. Casualties at Manila: 1 man killed and 3 wounded. Now on service in the Philippines.

Eighteenth Infantry.—Official title, Eighteenth Regiment of Infantry. Organized May–July, 1861. Served in Civil War and Indian expeditions. Quartered in Texas at outbreak of war. Commanded by Col. D. D. Van Valzah during war operations. Stationed during war: (1) New Orleans; (2) Manila. Sent from United States for service in the Philippines. Participated in assault on Manila. Casualties up to April 4, 1899: 4 killed and 19 wounded. Now on service in the Philippines.

Nineteenth Infantry.—Official title, Nineteenth Regiment of Infantry. Organized May 4, 1861. Served in Civil War and Indian expeditions. Quartered in Michigan at outbreak of war. Placed under orders for war with Spain, April 15, 1898. Commanded by Lieut.-Col. C. C. Hood during war operations. Stationed during war: (1) Mobile; (2) Puerto Rico. Sent from United States for service in Puerto Rico. Now on service in Puerto Rico.

Twentieth Infantry.—Official title, Twentieth Regiment of Infantry. Organized May 4, 1861. Served in Civil War and Indian expeditions. Quartered in Kansas at outbreak of war. Placed under orders for war with Spain, April 15, 1898. Strength in officers and men for war with Spain: 23 officers, 573 men. Commanded by Major W. S. McCaskey during war operations. Stationed during war: (1) Mobile, Ala.; (2) Cuba; (3) Philippines. Sent from United States for service in (1) Cuba; (2) Philippines. Participated in engagements at San Juan and El Caney. Casualties during Cuban campaign: 1 officer and 5 men wounded at San Juan; 1 man killed, and 1 officer and 7 men wounded at El Caney. Casualties at Manila to April 4, 1899: 3 men killed and 28 men wounded. Now on service in the Philippines.

Twenty-first Infantry.—Official title, Twenty-first Regiment of Infantry. Organized May 4, 1861. Served in Civil War and Indian expeditions. Quartered in New York at outbreak of war. Placed under orders for war with Spain, April 15, 1898. Strength in officers and men for war with Spain, 26 officers, 441 men. Commanded by Lieut.-Col. Chambers McKibbin during war operations. Stationed during war: (1) Tampa, Fla.; (2) Cuba. Sent from United States for service in Cuba. Participated in engagements at San Juan and around Santiago. Casualties during campaign: 6 men killed, 1 officer and 33 men wounded at San Juan; 1 man wounded in other engagements. Under orders for service in the Philippines.

Twenty-second Infantry.—Official title, Twenty-second Regiment of Infantry. Organized May 4, 1861. Served in Civil War and Indian expeditions. Quartered in Nebraska at outbreak of war. Placed under orders for war with Spain, April 15, 1898. Strength in officers and men for war with Spain: 29 officers, 467 men. Commanded by Lieut.-Col. J. H. Patterson during war operations. Stationed during war: (1) Tampa, Fla.; (2) Cuba; (3) Philippines. Sent from United States for service in (1) Cuba; (2) Philippines. Participated in engagements at San Juan and El Caney. Casualties during Cuban campaign: 2 men killed and 3 men wounded at San Juan; 8 men killed, and 6 officers and 35 men wounded at El Caney. Casualties at Manila: 1 officer and 7 men killed, 3 officers and 53 men wounded. Now on service in the Philippines.

Twenty-third Infantry.—Official title: Twenty-third Regiment of Infantry. Organized 1812. Served in War of 1812, Civil War, and Indian expeditions. Quartered in Texas at outbreak of war. Placed under orders for war with Spain, April 15, 1898. Commanded by Col. Samuel Owenshine during war operations. Stationed during war: (1) New Orleans; (2) Manila. Sent from United States for service in the Philippines. Participated in engage-

ments in the trenches and the assault on Manila; 1 man killed and 7 men wounded. Total casualties up to April 4, 1899: 3 men killed and 22 men wounded. Now on service in the Philippines.

Twenty-fourth Infantry.—Official title, Twenty-fourth Regiment of Infantry. Organized March 3, 1869. Served in Indian expeditions. Quartered in Utah at outbreak of war. Placed under orders for war with Spain, April 15, 1898. Strength in officers and men for war with Spain: 28 officers, 516 men. Commanded by Lieut.-Col. E. H. Liscum during war operations. Stationed during war: (1) Chickamauga, Ga.; (2) Cuba. Sent from United States for service in Cuba. Participated in engagements at San Juan. Casualties during campaign: 2 officers and 11 men killed, 6 officers and 71 men wounded. Now stationed in United States.

Twenty-fifth Infantry.—Official title, Twenty-fifth Regiment of Infantry. Organized May, 1869. Served in Indian expeditions. Quartered in Montana at outbreak of war. Placed under orders for war with Spain, April 15, 1898. Strength in officers and men for war with Spain: 18 officers, 509 men. Commanded by Lieut.-Col. A. S. Daggett during war operations. Stationed during war: (1) Chickamauga, Ga.; (2) Cuba. Sent from United States for service in Cuba. Participated in engagements at San Juan and El Caney. Casualties during campaign: 5 men wounded at San Juan; 1 officer and 7 men killed, 3 officers and 22 men wounded at El Caney. Now stationed in United States.

STATE ORGANIZATIONS.

(Entered in the order in which they appear in the War Department roster, issued March 9, 1899.)

First Alabama Infantry.—Official title, First Alabama Volunteer Infantry. Headquarters, Birmingham. Organized May 1, 1898. Mustered in for war with Spain, May 24, 1898. Strength in officers and men for war with Spain, 1,024. Commanded by Col. E. L. Higdon during war operations. Stationed during war: (1) Mobile; (2) Miami, Fla.; (3) Jacksonville, Fla.; (4) Birmingham, Ala. The regiment was mustered out at Birmingham, Oct. 31, 1898. This regiment was the Third Infantry, Alabama National Guard.

Second Alabama Infantry.—Official title, Second Alabama Volunteer Infantry. Headquarters, Tuscaloosa. Organized May 2, 1898. Mustered in for war with Spain, June 14, 1898. Strength in officers and men for war with Spain, 1,012. Commanded by Col. James W. Cox, formerly commanding First Alabama Infantry, during war operations. Stationed during war: (1) Mobile; (2) Miami, Fla.; (3) Jacksonville, Fla.; (4) Montgomery, Ala. The regiment was mustered out at Montgomery, Oct. 31, 1898. This regiment was composed of the First and Second Infantry, Alabama National Guard.

Third Alabama (Colored) Infantry.—Official title, Third Alabama Volunteer Infantry (Colored). Mustered in for war with Spain, June 4, 1898. Strength not recorded. Commanded by Col. R. L. Bullard (captain, U. S. A.) during war operations. Stationed during war: (1) Mobile; (2) Anniston. The regiment, at time of going to press, is still in the service, and stationed at Anniston.

First Arkansas Infantry.—Official title, First Arkansas Volunteer Infantry. Headquarters, Camp Dodge, Little Rock. Organized and mustered in for war with Spain, May 20, 1898. Strength in rank and file for war with Spain, 1,326. Commanded by Col. Elias Chandler (first lieutenant, Sixteenth United States Infantry) during war operations. Stationed during war: (1) Chickamauga, Ga.; (2) Fort Logan H. Roots, Arkansas. Casualties during campaign not reported. The regiment was mustered out at Little Rock, Oct. 25, 1898.

Second Arkansas Infantry.—Official title, Second Arkansas Volunteer Infantry. Headquarters, Camp Dodge, Little Rock. Organized and mustered in for war with Spain, May 25, 1898. Strength in rank and file for war with Spain, 1,326. Commanded by Col. Virgil Y. Cook during war operations. Stationed during war: (1) Chickamauga, Ga.; (2) Anniston, Ala. Casualties during campaign not reported. The regiment was mustered out at Anniston, Feb. 25, 1899.

First California Infantry.—Official title, First California Volunteer Infantry. Headquarters, San Francisco. Organized (by consolidation of three regiments, which were organized, respectively, on May 8, 1861, June 1, 1861, and June 21, 1863, Dec. 9, 1895. Mustered in for war with Spain, May 6, 1898. Strength for war with Spain, 1,369. Commanded by Col. J. F. Smith during war operations. Stationed during war: (1) Presidio, San Francisco; (2) Manila. Sent from United States for service in the Philippines. Participated in engagements at Malate, the capture of Manila, Paco, and engagements on the Pasig river. Casualties up to April 4, 1899: 16 men killed, 1 officer and 30 men wounded. The regiment, at the time of going to press, is still in the service, and stationed at the Philippines. A battalion of 4 companies is on the Isle of Negros. Two battalions (8 companies) are stationed at Manila and in the suburbs.

Sixth California Infantry.—Official title, Sixth California Volunteer Infantry. Headquarters, Stockton. Organized Feb. 21, 1888. Mustered in for war with Spain, May 11, 1898. Strength for war with Spain, 893. Commanded by Lieut.-Col. W. R. Johnson during war operations. Stationed during war: (1) Presidio, San Francisco; (2) Benicia Barracks, Cal. Casualties during campaign: 4 deaths of enlisted men. The regiment was mustered out at San Francisco, Dec. 15, 1898.

Seventh California Infantry.—Official title, Seventh California Volunteer Infantry. Headquarters, Los Angeles. Organized (by consolidation of Seventh and Ninth Infantry) Dec. 7, 1895. Mustered in for war with Spain, May 9, 1898. Strength for war with Spain, 1,361. Commanded by Col. J. R. Berry during war operations. Stationed during war: Camp Merritt, Presidio. Casualties during campaign: 20 deaths of enlisted men. The regiment was mustered out at San Francisco, Dec. 2, 1898.

Eighth California Infantry.—Official title, Eighth California Volunteer Infantry. Organized from Second and Fifth Infantry. Mustered in for war with Spain, July 9, 1898. Strength for war with Spain, 1,324. Commanded by Col. Park Henshaw during war operations. Stationed during war: (1) Camp Barrett, Oakland; (2) Presidio, Benicia, and Vancouver Barracks. Casualties during campaign: 10 deaths of enlisted men. The regiment was mustered out by battalions at Vancouver Barracks, Presidio, and Benicia Barracks, respectively, from Jan. 28 to Feb. 6, 1899.

California Artillery.—Official title, First Battalion, California Volunteer Heavy Artillery. Mustered in for war with Spain, May 10, 1898. Strength for war with Spain, 855. Commanded by Major F. S. Rice during war operations. Stationed during war: (1) Presidio; (2) Fort Canby, Washington; (3) Fort Baker, California; (4) Manila. Batteries A and D were sent from United States for service at the Philippines, and participated in the defense of Cavité. Casualties during campaign (California): 2 deaths of enlisted men. Batteries B and C were mustered out at Angel Island and at Fort Canby, respectively, on Jan. 30 and Feb. 3, 1899. Batteries A and D, at the time of going to press, are still in the service, and stationed at Cavité.

First Colorado Infantry.—Official title, First Colorado Infantry Volunteers. Headquarters, Denver. Organized April 27, 1898. Mustered in for war with Spain, May 1, 1898. Strength in officers and men for war with Spain, 1,020. Commanded by Col. Irving Hale during war operations. Stationed during war: (1) Camp Adams, Denver; (2) Camp Merritt, San Francisco; (3) Camp Dewey, Manila. Sent from United States for service in the Philippines. Participated in engagements at Manila, including fights in the trenches. Casualties to April 4, 1899: 1 officer and 5 men killed, 3 officers and 21 men wounded. The regiment, at the time of going to press, is still in the service, and stationed at Manila.

First Colorado Battery.—Official title, Light Battery A, Colorado Volunteer Artillery. Headquarters, Denver. Organized about 1879. Mustered in for war with Spain, July 1, 1898. This battery has done efficient service in the State on several occasions, including the quelling of riots and strike disturbances. Strength in officers and men for war with Spain, 109. Commanded by Capt. Harry J. Parks during war operations. Stationed during war: (1) Fort Logan, Colorado; (2) Fort Hancock, New Jersey. The battery was mustered out at Fort Hancock, Nov. 7, 1898.

First Connecticut Infantry.—Official title, First Regiment, Connecticut Volunteer Infantry. Headquarters, Hartford. Mustered in for war with Spain, May 17-18, 1898. Strength in officers and men for war with Spain, 1,326. Commanded by Col. Charles L. Burdett during war operations. Stationed during war: Detachments at (1) Fort Knox and Fort Preble, Maine; (2) Fort Constitution, New Hampshire; (3) Gull Island, New York. Casualties during campaign: 17 deaths of enlisted men. The regiment was mustered out at Hartford, Oct. 31, 1898.

Third Connecticut Infantry.—Official title, Third Regiment, Connecticut Volunteer Infantry. Headquarters, New London. Mustered in for war with Spain, July 6, 1898. Strength in officers and men for war with Spain, 1,326. Commanded by (1) Col. Augustus C. Tyler; (2) Col. Alexander Rodgers, during war operations. Stationed during war: (1) Niantic; (2) Camp Meade, Pennsylvania; (3) Camp Marion, South Carolina; (4) Camp Onward, Savannah, Ga. The regiment, at time of going to press, is still in the service, and stationed at Camp Onward.

Connecticut Light Artillery (Battery A).—Official title, Battery A, Light Connecticut Volunteer Artillery. Headquarters, Branford. Organized May 4, 1898. Mustered in for war with Spain, May 19, 1898. Strength in officers and men for war with Spain, 173. Commanded by Capt. Barlow S. Honce during war operations. Stationed during war at Niantic, Conn. Casualty during campaign: 1 death. The battery was mustered out at New Haven, Oct. 25, 1898.

Connecticut Heavy Artillery (Battery B).—Official title, Battery B, Connecticut Volunteer Artillery (formerly Company K, Infantry). Headquarters, Bridgeport. Mustered in for war with Spain, May 19, 1898. Strength in officers and men for war with Spain, 200. Commanded by Capt. Fred J. Breckbill during war operations. Stationed during war at Fort Griswold, Groton, Conn. The battery was mustered out at Bridgeport, Dec. 20, 1898.

Connecticut Heavy Artillery (Battery C).—Official title, Battery C, Connecticut Volunteer Artillery. Headquarters, New Haven. Mustered in for war with Spain, May 19, 1898. Strength in officers and men for war with Spain, 200. Commanded by Capt. Francis G. Beach during war

operations. Stationed during war at Niantic. Total casualties to officers and men: death of 1 officer and 4 men. The battery was mustered out at New Haven, Oct. 31, 1898.

First District of Columbia Infantry.—Official title, First District of Columbia Volunteer Infantry. Headquarters, Washington, D. C. Organized May 10, 1898. Mustered in for war with Spain, May 17, 1898. Strength in officers and men for war with Spain, 979. Commanded by Col. George H. Harries during war operations. Stationed during war: (1) Camp Alger, Virginia; (2) Camp Thomas, Georgia; (3) Tampa, Fla.; (4) Santiago, Cuba; (5) Montauk Point, Long Island. Sent from United States for service in Cuba (Company H sent as engineers to Puerto Rico). Participated in operations around Santiago, Cuba. Casualties during campaign: 17 deaths. The regiment was mustered out at Washington, D. C., Nov. 20, 1898.

First Delaware Infantry.—Official title, First Delaware Regiment, Infantry. Headquarters, Wilmington. Organized September, 1877. Mustered in for war with Spain, May 19, 1898. Strength in officers and men for war with Spain, 1,026. Commanded by Col. J. P. Wickersham during war operations. Stationed during war: (1) Camp Ebe W. Tunnell, Middletown; (2) Camp Meade, Pennsylvania. The First and Second Battalions were mustered out Nov. 16, 1898; Third Battalion, Dec. 19, 1898, at Wilmington. The First Delaware Infantry formed the escort of honor on the occasion of the President's visit to Camp Meade.

First Florida Infantry.—Official title, First Florida Regiment, Volunteer Infantry. Organized from the 5 battalions of 4 companies each, comprising the State permanent military organization. Mustered in for war with Spain, May 17, 1898. Strength not specified. Commanded by (1) Col. W. F. Williams, (2) Col. C. P. Lovell, during war operations. Stationed during war: (1) Tampa, Fla.; (2) Fernandina, Fla.; (3) Huntsville, Ala. Eight companies were mustered out at Tallahassee, Dec. 4, 1898; the remaining four companies at Huntsville, Ala., Jan. 28, 1899.

First Georgia Infantry.—Official title, First Georgia Volunteer Infantry. Organized and mustered in for war with Spain, April 29, 1898. Strength in officers and men for war with Spain, (about) 1,250. Commanded by Col. H. R. Lawton during war operations. Stationed during war: (1) Griffin, Ga.; (2) Tampa, Fla.; (3) Knoxville, Tenn. Casualties during campaign not reported. The regiment was mustered out Nov. 18, 1898.

Second Georgia Infantry.—Official title, Second Georgia Volunteer Infantry. Organized and mustered in for war with Spain, May 1, 1898. Strength in officers and men for war with Spain, (about) 1,250. Commanded by Col. Oscar J. Brown during war operations. Stationed during war: (1) Griffin, Ga.; (2) Tampa, Fla.; (3) Huntsville, Ala.; (4) Atlanta, Ga. Casualties during campaign not reported. The regiment was mustered out Nov. 30, 1898.

Third Georgia Infantry.—Official title, Third Georgia Volunteer Infantry. Organized and mustered in for war with Spain, August, 1898. Strength in officers and men for war with Spain, 1,300. Commanded by (1) Col. John S. Candler, (2) Col. Robert L. Burner. Stationed during war: (1) Griffin, Ga.; (2) Savannah, Ga.; (3) Cuba. Sent from United States for service in Cuba. Casualties during campaign not reported. The regiment, at time of going to press, is still in the service, and stationed at Augusta, to be mustered out there.

Georgia Light Artillery (Battery A).—Official title, Light Battery A, Georgia Volunteers. Organized May 8, 1898. Mustered in for war with

Spain, May 13, 1898. Strength in officers and men for war with Spain, (about) 175. Commanded by Capt. C. G. Bradley during war operations. Stationed during war: (1) Griffin, Ga.; (2) Tampa, Fla.; (3) Chickamauga, Ga. The battery was mustered out at Griffin, Nov. 21, 1898.

Georgia Light Artillery (Battery B).—Official title, Light Battery B, Georgia Volunteers. Organized May 10, 1898. Mustered in for war with Spain, May 15, 1898. Strength in officers and men for war with Spain, (about) 175. Commanded by Capt. George P. Walker during war operations. Stationed during war: (1) Griffin, Ga.; (2) Knoxville, Tenn. The battery was mustered out at Griffin, Oct. 17, 1898.

First Illinois Infantry.—Official title, First Illinois Infantry. Headquarters, Chicago. Mustered in for war with Spain, May 13, 1898. Strength for war with Spain: 50 officers, 1,220 enlisted men. Commanded by Col. Henry L. Turner during war operations. Stationed during war: (1) Camp Thomas, Georgia; (2) Cuba. Sent from United States for service in Cuba. Participated in the operations before Santiago. Casualties not reported. The regiment was mustered out at Chicago, Nov. 17, 1898, but is again in the State military service as the First Infantry, Illinois National Guard. One provisional company was formed from the regiment and sent to Puerto Rico with the first expedition to that island.

Second Illinois Infantry.—Official title, Second Illinois Infantry. Headquarters, Chicago. Mustered in for war with Spain, May 16, 1898. Strength for war with Spain: 50 officers, 1,220 enlisted men. Commanded by Col. George M. Moulton during war operations. Stationed during war: (1) Jacksonville, Fla.; (2) Havana, Cuba. Sent from United States for service in Cuba. Casualties not reported. The regiment, at time of going to press, is still in the service, and stationed at Havana.

Third Illinois Infantry.—Official title, Third Illinois Infantry. Headquarters, Joliet. Mustered in for war with Spain, May 8, 1898. Strength for war with Spain: 50 officers, 1,220 enlisted men. Commanded by Col. Fred Bennett during war operations. Stationed during war: (1) Chickamauga, Ga.; (2) Puerto Rico. Sent from United States for service in Puerto Rico. Participated in skirmishes. Casualties during campaign: 1 private killed. The regiment was mustered out in January, 1899, at home stations.

Fourth Illinois Infantry.—Official title, Fourth Illinois Infantry. Headquarters, Vandalia. Mustered in for war with Spain, May, 1898. Commanded by (1) Col. Casimir Andel; (2) Col. Eben Swift. Stationed during war: (1) Jacksonville, Fla.; (2) Cuba. Sent from United States for service in Cuba. Casualties not reported. The regiment, at time of going to press, is still in the service, and stationed at Havana.

Fifth Illinois Infantry.—Official title, Fifth Illinois Infantry. Headquarters, Springfield. Mustered in for war with Spain, May 7, 1898. Strength for war with Spain: 50 officers, 1,220 enlisted men. Commanded by Col. James S. Culver during war operations. Stationed during war: (1) Chickamauga, Ga.; (2) Newport News, Va.; (3) Lexington, Ky. Casualties not known. The regiment was mustered out at Springfield, Oct. 16, 1898. The Fifth Illinois Infantry embarked for Puerto Rico, but was recalled.

Sixth Illinois Infantry.—Official title, Sixth Illinois Infantry. Headquarters, Chicago. Mustered in for war with Spain, May 11, 1898. Strength for war with Spain: 50 officers, 1,220 enlisted men. Commanded by Col. D. J. Foster during war operations. Stationed during war: (1) Camp Alger, Virginia; (2) Puerto Rico. Sent from United States

for service in Puerto Rico. Participated in skirmishes including Guanica Road. Casualties not known. The regiment was mustered out at Springfield, Nov. 25, 1898.

Seventh Illinois Infantry.—Official title, Seventh Illinois Infantry. Headquarters, Chicago. Organized June 21, 1898. Mustered in for war with Spain, May 18, 1898. Strength for war with Spain 50 officers, 1,220 enlisted men. Commanded by Col. Marcus Kavanagh during war operations. Stationed during war at Camp Alger, Virginia. Casualties not known. The regiment was mustered out at Chicago, Oct. 20, 1898.

Eighth Illinois (Colored) Infantry.—Official title, Eighth Illinois Infantry. Headquarters, Chicago. Organized June 27, 1898. Mustered in for war with Spain, July 21, 1898. Strength for war with Spain: 47 officers, 1,217 enlisted men. Commanded by Col. John R. Marshall. Sent from United States for service in Cuba. Casualties not known. The regiment, at time of going to press, is still in the service *en route* to the United States for mustering out. All of the officers are colored, including the colonel.

Ninth Illinois Infantry.—Official title, Ninth Illinois Volunteer Infantry. Organized June 27, 1898. Mustered in for war with Spain, July 21, 1898. Strength for war with Spain: 47 officers, 1,217 enlisted men. Commanded by Col. James R. Campbell during war operations. Stationed during war: (1) Jacksonville, Fla.; (2) Cuba. Sent from United States for service in Cuba. Casualties not known. The regiment, at time of going to press, is still in the service, and stationed at Havana, Cuba.

First Illinois Cavalry.—Official title, First Illinois Cavalry. Headquarters, Chicago. Organized April 26, 1898. Mustered in for war with Spain, May 21, 1898. Strength for war with Spain: 50 officers, 1,224 enlisted men. Commanded by Col. Edward C. Young during war operations. Stationed during war at Chickamauga, Ga. Casualties not known. The regiment was mustered out at Fort Sheridan, Ill., Oct. 11, 1898.

Illinois Light Artillery (Battery A).—Official title, Battery A, Illinois Volunteer Artillery. Headquarters, Danville. Mustered in for war with Spain, May 12, 1898. Strength for war with Spain not reported. Commanded by Capt. Philip Yeager during war operations. Stationed during war: (1) Chickamauga, Ga.; (2) Puerto Rico. Sent from United States for service in Puerto Rico. Casualties during campaign not known. The battery was mustered out at Danville, Nov. 25, 1898.

One Hundred and Fifty-seventh Indiana Infantry.—Official title, One Hundred and Fifty-seventh Indiana Volunteer Infantry (Third Regiment, Indiana National Guard). Headquarters, South Bend, Ind. Organized June 30, 1898. Mustered in for war with Spain, May 10, 1898. Strength for war with Spain: 50 officers, 1,257 enlisted men. Commanded by Col. George M. Studebaker during war operations. Stationed during war: (1) Camp Mount, Indiana; (2) Camp Thomas, Georgia; (3) Fort Tampa, Florida; (4) Ferdinand, Fla. Casualties during campaign: death of 2 officers and 17 men. The regiment was mustered out at Indianapolis, Nov. 1, 1898. The One Hundred and Fifty-seventh was twice ordered aboard transports at Tampa for service in Cuba, but orders were countermanded.

One Hundred and Fifty-eighth Indiana Infantry.—Official title, One Hundred and Fifty-eighth Regiment, Indiana Volunteer Infantry (Second Regiment, Indiana National Guard). Headquarters, Indianapolis. Organized May 27, 1898. Mustered in for war with Spain, May 10, 1898. Strength for war with Spain: 50 officers, 1,292 men. Commanded by Col. Harry B. Smith during war operations.

Stationed during war: (1) Camp Mount, Indiana; (2) Camp Thomas, Georgia; (3) Camp Poland, Tennessee. Casualties during campaign: death of 10 men. The regiment was mustered out at Indianapolis, Nov. 4, 1898.

One Hundred and Fifty-ninth Indiana Infantry.—Official title, One Hundred and Fifty-ninth Regiment, Indiana Volunteer Infantry (First Regiment, Indiana National Guard). Headquarters, New Albany. Organized May 4, 1881. Mustered in for war with Spain, May 12, 1898. Strength for war with Spain: 51 officers, 1,318 enlisted men. Commanded by Col. John T. Barnett during war operations. Casualties during campaign: death of 1 officer and 10 men. The regiment was mustered out Nov. 23, 1898.

One Hundred and Sixtieth Indiana Infantry.—Official title, One Hundred and Sixtieth Regiment, Indiana Volunteer Infantry (Fourth Regiment, Indiana National Guard). Headquarters, Marion. Organized July 5, 1890. Mustered in for war with Spain, May 12, 1898. Strength for war with Spain: 50 officers, 1,264 enlisted men. Commanded by George W. Gunder during war operations. Sent from United States for service in Cuba. The regiment, at time of going to press, is still in the service, and stationed in Cuba.

One Hundred and Sixty-first Indiana Infantry.—Official title, One Hundred and Sixty-first Indiana Volunteer Infantry. Organized as volunteers June 24, 1898. Mustered in for war with Spain, July 15, 1898. Strength for war with Spain: 46 officers, 1,228 men. Commanded by Col. Winfield T. Durbin during war operations. Sent from United States for service in Cuba. The regiment, at time of going to press, is still in the service, and stationed in Cuba.

First Indiana (Colored) Infantry.—Official title, Indiana Colored Infantry. Two companies only. Headquarters, Indianapolis. Organized and mustered in for war with Spain, July 15, 1898. Strength in officers and men for war with Spain: Company A, 104; Company B, 108. Commanded by: Company A, Capt. J. M. Porter; Company B, Capt. John J. Buckner. Stationed during war: (1) Fort Thomas, Kentucky; (2) Chickamauga, Ga. These companies were mustered out at Chickamauga, Jan. 20, 1899.

Twenty-seventh Indiana Battery.—Official title, Twenty-seventh Light Battery, Indiana Volunteers (Battery A, First Artillery, Indiana National Guard). Headquarters, Indianapolis. Organized Aug. 8, 1892. Mustered in for war with Spain May 10, 1898. Strength for war with Spain: 4 officers, 173 enlisted men. Commanded by Capt. James B. Curtis. Sent from United States for service in Puerto Rico. The regiment was mustered out at Indianapolis, Nov. 25, 1898.

Twenty-eighth Indiana Battery.—Official title, Twenty-eighth Battery, Light Artillery, Indiana Volunteers. Headquarters, Fort Wayne, Ind. Organized Nov. 21, 1888. Mustered in for war with Spain, May 12, 1898. Strength in officers and men for war with Spain, 175. Commanded by Capt. W. F. Ranke during war operations. Stationed at Camp G. H. Thomas, Georgia. Casualties during campaign: 1 death. The regiment was mustered out at Indianapolis, Ind., Oct. 31, 1898.

Forty-ninth Iowa Infantry.—Official title, Forty-ninth Regiment, Infantry, Iowa Volunteers. Headquarters, Cedar Rapids. Organized April 30, 1892. Mustered in for war with Spain, June 2, 1898. Strength for war with Spain: 50 officers, 1,285 enlisted men. Commanded by Col. William G. Dows during war operations. Stationed during war: (1) Camp McKinley, Des Moines; (2) Jacksonville, Fla.; (3) Savannah, Ga.; (4) Havana, Cuba. Sent from

United States for service in Cuba. Casualties during campaign: death of 2 officers. Reports of casualties to enlisted men not received. The regiment, at time of going to press, is still in the service, and stationed at Havana, Cuba.

Fiftieth Iowa Infantry.—Official title, Fiftieth Regiment, Infantry, Iowa Volunteers. Headquarters, Muscatine. Organized April 30, 1892. Mustered in for war with Spain, May 17, 1898. Strength for war with Spain: 50 officers, 1,298 enlisted men. Commanded by (1) Col. D. V. Jackson; (2) Col. E. E. Lambert, during war operations. Stationed during war: (1) Camp McKinley, Des Moines; (2) Jacksonville, Fla. Casualties during campaign: death of 32 enlisted men. The regiment was mustered out at Des Moines, Nov. 30, 1898.

Fifty-first Iowa Infantry.—Official title, Fifty-first Regiment, Infantry, Iowa Volunteers. Headquarters, Des Moines. Organized April 30, 1892. Mustered in for war with Spain, May 30, 1898. Strength for war with Spain: 50 officers, 1,307 enlisted men. Commanded by Col. John C. Loper during war operations. Stationed during war: (1) Camp McKinley, Des Moines; (2) San Francisco, Cal.; (3) Manila and vicinity. Sent from United States for service in the Philippines. Casualties during campaign: death of 26 enlisted men. The regiment, at time of going to press, is still in the service, and stationed at Cavité, Philippines.

Fifty-second Iowa Infantry.—Official title, Fifty-second Regiment, Infantry, Iowa Volunteers. Headquarters, Sioux City. Organized April 30, 1892. Mustered in for war with Spain, May 25, 1898. Strength for war with Spain: 50 officers, 1,306 enlisted men. Commanded by Col. William B. Humphrey during war operations. Stationed during war: (1) Camp McKinley, Des Moines; (2) Chickamauga Park, Georgia. Casualties during campaign: death of 36 enlisted men. The regiment was mustered out at Des Moines, Oct. 30, 1898.

Fifth Iowa Battery.—Official title, Fifth Battery, Iowa Volunteers. Headquarters, Cedar Rapids. Organized June 28, 1898. Mustered in for war with Spain, July 8, 1898. Strength for war with Spain: 3 officers, 106 enlisted men. Commanded by Capt. George W. Bever during war operations. Stationed during war at Camp McKinley, Des Moines. The regiment was mustered out at Des Moines, Sept. 5, 1898.

Sixth Iowa Battery.—Official title, Sixth Battery, Iowa Volunteers. Headquarters, Burlington. Organized June 24, 1898. Mustered in for war with Spain, July 8, 1898. Strength for war with Spain: 3 officers, 106 enlisted men. Commanded by Capt. Frank S. Long during war operations. Stationed during war at Camp McKinley, Des Moines. The battery was mustered out at Des Moines, Sept. 5, 1898.

Twentieth Kansas Infantry.—Official title, Twentieth Regiment, Kansas Infantry Volunteers. Organized and mustered in for war with Spain, May 13, 1898. Strength for war with Spain: officers 46, enlisted men 1,260. Commanded by Col. Frederick F. Unston during war operations. Stationed during war: (1) Presidio, San Francisco; (2) Manila. Sent from United States for service in the Philippines. Participated in engagements at Manila, Calocan, etc. Casualties up to April 4, 1899: 7 officers and 24 enlisted men killed, 6 officers and 114 men wounded. The regiment, at time of going to press, is still in the service, and stationed at Manila.

Twenty-first Kansas Infantry.—Official title, Twenty-first Kansas Infantry Volunteers. Organized and mustered in for war with Spain, May 14, 1898. Strength for war with Spain: 46 officers, 1,184 enlisted men. Commanded by Col. Thomas G. Fitch during war operations. Stationed during

war: (1) Camp George H. Thomas, Georgia; (2) Camp Hamilton, Kentucky. Casualties during campaign: deaths, 1 officer and 19 men. The regiment was mustered out at Fort Leavenworth, Dec. 10, 1898.

Twenty-second Kansas Infantry.—Official title, Twenty-second Kansas Infantry Volunteers. Organized and mustered in for war with Spain, May 17, 1898. Strength for war with Spain: 45 officers, 1,132 enlisted men. Commanded by Col. Henry C. Lindsey during war operations. Stationed during war: (1) Camp Alger, Virginia; (2) Camp Meade, Pennsylvania. Casualties during campaign: deaths, 1 officer and 13 men. The regiment was mustered out at Fort Leavenworth, Nov. 3, 1898.

Twenty-third Kansas (Colored) Infantry.—Official title, Twenty-third Kansas Infantry Volunteers (Colored). Organized and mustered in for war with Spain, July 15, 1898. Strength for war with Spain: 29 officers, 847 enlisted men. Commanded by Lieut.-Col. James Beck during war operations. Sent from United States for service in Cuba. The regiment, at time of going to press, is *en route* to Fort Leavenworth, for mustering out. Its war strength consisted of two battalions only.

First Louisiana Infantry.—Official title, First Regiment Infantry, Louisiana Volunteers. Headquarters, Baton Rouge. Organized March, 1896. Mustered in for war with Spain, May 18, 1898. Strength in rank and file for war with Spain, 1,023. Commanded by Col. W. L. Stevens during war operations. Stationed during war: (1) New Orleans; (2) Miami, Fla.; (3) Mobile, Ala.; (4) Jacksonville, Fla. The regiment was mustered out at Jacksonville, Fla., Oct. 3, 1898.

Second Louisiana Infantry.—Official title, Second Regiment Infantry, Louisiana Volunteers. Headquarters, New Orleans. Mustered in for war with Spain, May 26, 1898. Strength in rank and file for war with Spain, 1,006. Commanded by Col. Elmer E. Wood during war operations. Stationed during war: (1) New Orleans; (2) Mobile, Ala.; (3) Jacksonville, Fla.; (4) Miami, Fla.; (5) Camp Columbia, Cuba. Sent from United States for service in Cuba. The regiment, at time of going to press, is still in service, and stationed at Camp Columbia.

Louisiana Light Battery (A).—Official title, Battery A, Louisiana Field Artillery. Headquarters, New Orleans. The Battalion of Louisiana Field Artillery was organized in 1896. Mustered in for war with Spain, June 21, 1898. Strength in rank and file for war with Spain, 109. Commanded by Capt. John P. Sullivan during war operations. Stationed during war at Jackson Barracks, New Orleans. The battery was mustered out at New Orleans, Nov. 12, 1898.

Louisiana Light Battery (B).—Official title, Battery B, Washington Artillery. Headquarters, New Orleans. The Battalion of Washington Artillery was organized in 1838. Mustered in for war with Spain, June 21, 1898. Strength in rank and file for war with Spain, 109. Commanded by Capt. W. Kornbeck during war operations. Stationed during war at Jackson Barracks, New Orleans. The battery was mustered out at New Orleans, Nov. 12, 1898. This battery was formed from the Battalion of Washington Artillery, one of the oldest military organizations in the State, and took part in the war with Mexico and the war between the States.

Louisiana Light Battery (C).—Official title, Battery C, Donaldsonville Cannoneers. Headquarters, Donaldsonville. Organized about 1836. Mustered in for war with Spain, June 21, 1898. Served in the war with Mexico and the war between the States. Strength in rank and file for war with

Spain, 109. Commanded by Capt. Richard M. McCulloch during war operations. Stationed during war at Jackson Barracks, New Orleans. The battery was mustered out at New Orleans, Nov. 12, 1898.

First Maine Infantry.—Official title, First Regiment of Infantry, National Guard, State of Maine, when in State service. First Maine Volunteer Infantry when in United States service. Headquarters, Biddeford. Organized April 5, 1873. Mustered in for war with Spain, May 5-14, 1898. Strength for war with Spain, 1,352. Commanded by Col. Lucius H. Kendall during war operations. Stationed during the war: (1) Augusta; (2) Chickamauga, Ga. The regiment was ordered to proceed to Puerto Rico, but the order was revoked when the protocol was signed. Casualties during campaign: death of 2 officers and 41 men. The regiment was mustered out at Portland and home stations of companies, Oct. 30, 1898.

Maine Heavy Artillery (Battery A).—Official title, First Battalion, Maine Volunteer Heavy Artillery (Battery A). Headquarters, Lewiston. Formed from Companies B and D, Second Regiment, Infantry, National Guard, May 2, 1898. Mustered in for war with Spain, May 17, 1898. Strength for war with Spain, 350. Commanded by Capt. Henry G. Crockett during war operations. Stationed during war: (1) Augusta, Me.; (2) Fort Popham, Maine; (3) Savannah, Ga.; (4) Camp Columbia, Cuba. Sent from United States for service in Cuba. Casualties during campaign: death of one man. The regiment, at the time of going to press, is still in the service, and believed to be *en route* from Cuba to Savannah.

Maine Heavy Artillery (Battery B).—Official title, First Battalion, Maine Volunteer Artillery (Battery B). Headquarters, Houlton. Formed from the Third Battalion, Second Regiment, Infantry, National Guard, June 29, 1898. Mustered in for war with Spain, July 16, 1898. Strength for war with Spain, 109. Commanded by Capt. Frank N. Hume during war operations. Stationed during war: (1) Augusta, Me.; (2) Savannah, Ga.; (3) Camp Columbia, Cuba. Sent from United States for service in Cuba. Casualties during campaign: death of 2 men. The regiment at time of going to press, is still in the service, and believed to be *en route* from Cuba to Savannah.

Maine Heavy Artillery (Battery C).—Official title, First Battalion, Maine Volunteer Infantry (Battery C). Headquarters, Gardiner. Formed from the First and Second Battalions, Second Regiment, Infantry, National Guard, June 29, 1898. Mustered in for war with Spain, July 18, 1898. Strength for war with Spain, 109. Commanded by Capt. Thomas Jewett during war operations. Stationed during war: (1) Augusta, Me.; (2) Savannah, Ga.; (3) Camp Columbia, Cuba. Sent from United States for service in Cuba. Casualties during campaign: death of 3 men. The regiment at time of going to press is still in the service, and believed to be *en route* from Cuba to Savannah.

Maine Heavy Artillery (Battery D).—Official title, First Battalion, Maine Volunteer Infantry (Battery D). Headquarters, Bath. Formed from the First and Second Battalions, Second Regiment, Infantry, National Guard, June 29, 1898. Mustered in for war with Spain, July 20, 1898. Strength for war with Spain, 109. Commanded by Capt. William R. Kimball during war operations. Stationed during war: (1) Augusta, Me.; (2) Savannah, Ga.; (3) Camp Columbia, Cuba. Sent from United States for service in Cuba. Casualties during campaign: death of 5 men. The battery, at time of going to press, is still in the service, and believed to be *en route* from Cuba to Savannah.

First Maryland Infantry.—Official title, First Regiment, Infantry, Maryland National Guard. Headquarters, Hagerstown. Organized in 1881 as a battalion; as a regiment, 1887. Mustered in for war with Spain, May 17, 1898. Strength for war with Spain, 1,333. Commanded by Col. William P. Lane during war operations. Stationed during war: (1) Fort Monroe, Virginia; (2) Camp Meade, Pennsylvania; (3) Augusta, Ga. Casualties during campaign: death of 12 men. The regiment was mustered out at Augusta, Ga., Feb. 28, 1899.

Fifth Maryland Infantry.—Official title, Fifth Regiment, Infantry, Maryland National Guard. Headquarters, Baltimore. Mustered in for war with Spain, May 14, 1898. Strength for war with Spain, 1,333. Commanded by Col. R. Dorsey Coale during war operations. Stationed during war: (1) Chickamauga, Ga.; (2) Tampa, Fla.; (3) Huntsville, Ala. Casualties during campaign: death of 1 officer and 20 men. The regiment was mustered out at Baltimore, Oct. 22, 1898.

Second Massachusetts Infantry.—Official title, Second Regiment, Infantry, Massachusetts Volunteer Militia. Headquarters, Springfield. Organized, 1878. Mustered in for war with Spain, May 10, 1898. Strength in officers and men for war with Spain, 907. Commanded by Col. Embury P. Clark during war operations. Stationed during war: (1) State camp ground, South Framingham; (2) Lakeland, Fla.; (3) Tampa, Fla.; (4) Cuba. Sent from United States for service in Cuba. Participated in engagements at San Juan and El Caney, and siege of Santiago. Casualties during campaign: 4 men wounded at San Juan; 1 officer and 7 men killed, and 3 officers and 34 men wounded at El Caney. The regiment was mustered out at home stations of companies on Nov. 3, 1898.

Fifth Massachusetts Infantry.—Official title, Fifth Regiment, Massachusetts Infantry, Volunteers. Headquarters, Boston. Organized Sept. 24, 1834; reorganized 1862. This regiment did creditable service during the Civil War. Mustered in for war with Spain, July 2, 1898. Strength in officers and men for war with Spain, 1,315. Commanded by Col. Jophanus H. Whitney during war operations. Stationed during war: (1) Camp Dalton, Massachusetts; (2) Camp Meade, Pennsylvania; (3) Camp Wetherill, South Carolina. Casualties during campaign: 12 deaths. The regiment was mustered out at Greenville, S. C., March 31, 1899.

Sixth Massachusetts Infantry.—Official title, Sixth Regiment, Infantry, Massachusetts Volunteer Militia. Headquarters, Boston. Reorganized July 14, 1876. This regiment did creditable service during the Civil War. The Sixth Massachusetts Infantry was the first regiment to report at the outbreak of the Civil War, and was the first effective regiment to report for duty in Washington, fighting its way through Baltimore. Mustered in for war with Spain, May 13, 1898. Strength in officers and men for war with Spain, 1,327. Commanded by Col. Edmund Rice (captain United States army) during war operations. Stationed during war: (1) State camp ground, South Framingham; (2) Falls Church, Va.; (3) Puerto Rico. Sent from United States for service in Puerto Rico. Participated in engagement at Yanco, and in general skirmish work, including Guanica Road. Casualties during campaign: 26 deaths. The regiment was mustered out at Boston on Jan. 21, 1899.

Eighth Massachusetts Infantry.—Official title, Eighth Regiment, Infantry, Massachusetts Volunteer Militia. Headquarters, Salem. Organized May 1, 1866; reorganized July 14, 1876. This regiment did creditable service during the Civil War. Mustered in for war with Spain, May 11, 1898. Strength in officers and men for war with Spain, 1,327. Com-

manded by Col. William A. Pew, Jr., during war operations. Stationed during war: (1) State camp ground, South Framingham; (2) Chickamauga, Ga.; (3) Lexington, Ky.; (4) Americus, Ga.; (5) Cuba. Sent from United States for service in Cuba. Casualties during campaign: 29 deaths. The regiment, at time of going to press, is still in the service, and stationed in Cuba.

Ninth Massachusetts Infantry.—Official title, Ninth Regiment, Infantry, Massachusetts Volunteer Militia. Headquarters, Boston. Reorganized 1878. This regiment did creditable service during the Civil War. Mustered in for war with Spain, May 11, 1898. Strength in officers and men for war with Spain, 1,327. Commanded by (1) Col. F. B. Bogan, who died during service; (2) Col. L. J. Logan. Stationed during war: (1) State camp ground, South Framingham; (2) Falls Church, Va.; (3) Cuba. Participated in engagements before Santiago. Casualties during campaign: 3 men wounded at San Juan and 1 wounded during fights around Santiago. The regiment was mustered out at Boston, Nov. 26, 1898.

First Massachusetts Artillery.—Official title, First Regiment, Heavy Artillery, Massachusetts Volunteer Militia. Headquarters, Boston. Organized as First Regiment of Infantry, Massachusetts Volunteer Militia, 1878; changed to heavy artillery June 1, 1897. Mustered in for war with Spain May 9, 1898. This regiment as a regiment had no service in previous wars, but is composed of old companies that rendered service in War of 1812 and Civil War. Some of these companies date back over one hundred years. Strength in officers and men for war with Spain, 749. Commanded by Col. Charles Pfaff during war operations. Stationed during war as coast guard along the shores of Massachusetts. One death occurred during the campaign. The regiment was mustered out at Boston on Nov. 14, 1898.

Thirty-first Michigan Infantry.—Official title, Thirty-first Michigan Volunteer Infantry. Headquarters, Island Lake. Organized as First Infantry, Michigan National Guard; mobilized April 26, 1898. Mustered in for war with Spain, May 8-11, 1898. Strength for war with Spain, 1,326. Commanded by Col. Cornelius Gardener during war operations. Stationed during war: (1) Chickamauga Park, Georgia; (2) Knoxville, Tenn.; (3) Savannah, Ga.; (4) Cuba. Sent from United States for service in Cuba. Casualties during campaign: death of 2 officers and 17 men. The regiment, at time of going to press, is still in the service, and stationed in Cuba.

Thirty-second Michigan Infantry.—Official title, Thirty-second Michigan Volunteer Infantry. Headquarters, Island Lake. Organized as Second Infantry, Michigan National Guard; mobilized April 26, 1898. Mustered in for war with Spain, May 11-14, 1898. Strength for war with Spain, 1,326. Commanded by Col. William T. McGurrian during war operations. Stationed during war: (1) Tampa, Fla.; (2) Fernandina, Fla.; (3) Huntsville, Ala. Casualties during campaign: death of 20 men. The regiment was mustered out at home stations, Oct. 25 to Nov. 9, 1898.

Thirty-third Michigan Infantry.—Official title, Thirty-third Michigan Volunteer Infantry. Headquarters, Island Lake. Organized as Third Infantry, Michigan National Guard; mobilized April 26, 1898. Mustered in for war with Spain, May 13-20, 1898. Strength for war with Spain, 1,001. Commanded by Col. Charles L. Boynton during war operations. Stationed during war: (1) Dunn Loring, Va.; (2) Cuba; (3) Montauk Point, N. Y. Sent from United States for service in Cuba. Participated in engagements at Aguadores, Cuba. Cas-

ualties during campaign: 2 men killed and 10 wounded. The regiment was mustered out at home stations, Jan. 8, 1899.

Thirty-fourth Michigan Infantry.—Official title, Thirty-fourth Michigan Volunteer Infantry. Headquarters, Island Lake. Organized as Fifth Infantry, Michigan National Guard; mobilized April 26, 1898. Mustered in for war with Spain, May 17-25, 1898. Strength for war with Spain, 1,326. Commanded by Col. John P. Petermann during war operations. Stationed during war: (1) Dunn Loring, Va.; (2) Cuba. Sent from United States for service in Cuba. Participated in engagements before Santiago. Casualties during campaign: death of 1 officer and 87 men. The regiment was mustered out at home stations, Jan. 2, 1899.

Thirty-fifth Michigan Infantry.—Official title, Thirty-fifth Michigan Volunteer Infantry. Headquarters, Island Lake. Organized June 30, 1898. Mustered in for war with Spain, July 9-25, 1898. Strength for war with Spain, 1,326. Commanded by Col. Edwin M. Irish during war operations. Stationed during war: (1) Camp Meade, Pennsylvania; (2) Camp Mackenzie, Augusta, Ga. Casualties during campaign: death of 1 officer and 23 men. The regiment was mustered out March 31, 1899.

Twelfth Minnesota Infantry.—Official title, Twelfth Regiment, Minnesota Volunteers. Headquarters (as Second Regiment, National Guard), New Ulm. Organized Feb. 27, 1883. Mustered in for war with Spain, May 7, 1898. Strength for war with Spain, 1,332. Commanded by Col. Joseph Bobleter during war operations. Stationed during war: (1) Camp Ramsey, St. Paul; (2) Camp Thomas, Chickamauga, Ga.; (3) Camp Hamilton, Lexington, Ky.; (4) Camp Mueller, New Ulm. Casualties during campaign: death of 1 officer and 19 men. The regiment was mustered out at New Ulm, Nov. 5, 1898.

Thirteenth Minnesota Infantry.—Official title, Thirteenth Regiment, Minnesota Volunteers. Headquarters (First Regiment, National Guard), Minneapolis. Organized April 1, 1880. Mustered in for war with Spain, May 7, 1898. Strength for war with Spain, 1,350. Commanded by (1) Col. Charles McC. Reeve; (2) Col. Frederick W. Ames during war operations. Stationed during war: (1) Camp Merritt, San Francisco; (2) Camp Dewey, near Manila. Sent from United States for service in the Philippines. Participated in the assault on Manila and subsequent operations. Casualties up to April 4, 1899: 1 killed and 1 died of wounds; wounded, 3 officers and 48 men. Up to time of going to press the regiment is still in service at Manila.

Fourteenth Minnesota Infantry.—Official title, Fourteenth Regiment, Minnesota Volunteers. Headquarters (as Third Regiment National Guard), St. Paul. Mustered in for war with Spain, May 8, 1898. Strength for war with Spain, 1,334. Commanded by Col. Charles A. Van Duzee during war operations. Stationed during war: (1) Camp Ramsey, St. Paul; (2) Camp Thomas, Chickamauga, Ga.; (3) Camp Poland, Knoxville, Tenn.; (4) Camp Van Duzee, St. Paul. Casualties during campaign: 9 deaths. The regiment was mustered out at St. Paul, Nov. 8, 1898.

Fifteenth Minnesota Infantry.—Official title, Fifteenth Minnesota Volunteer Infantry. Headquarters, Camp Ramsey. Organized July 2, 1898. Mustered in for war with Spain, July 18, 1898. Strength in officers and men for war with Spain, 1,326. Commanded by (1) Col. J. C. Shandrew; (2) Col. H. A. Leonhauser during war operations. Stationed during war: (1) Camp Ramsey, Minnesota; (2) Camp Snelling, Minnesota; (3) Camp Meade, Pennsylvania; (4) Camp Mackenzie, Georgia. Casualties during campaign: 20 deaths. The regi-

ment was mustered out at Camp Mackenzie March 27, 1899.

First Mississippi Infantry.—Official title, First Mississippi Volunteer Infantry. Organized May 10, 1898. Mustered in for war with Spain, May 26, 1898. Strength for war with Spain, 1,296. Commanded by Col. George M. Govan during war operations. Stationed during war at Chickamauga, Ga. The regiment was mustered out at Columbia, Tenn., Dec. 20, 1898.

Second Mississippi Infantry.—Official title, Second Mississippi Volunteer Infantry. Organized, June 9, 1898. Mustered in for war with Spain, July 15, 1898. Strength for war with Spain, 1,200. Commanded by Col. William A. Montgomery during war operations. Stationed during war: (1) Tampa, Fla.; (2) Jacksonville, Fla. The regiment was mustered out at Columbia, Tenn., Dec. 21, 1898.

Third Mississippi Infantry.—Official title, Third Mississippi Volunteer Infantry. Organized July 15, 1898. Mustered in for war with Spain, Aug. 4, 1898. Strength for war with Spain, 600. Commanded by Lieut.-Col. Robert W. Banks during war operations. The regiment was mustered out at Albany, Ga., March, 1899.

First Missouri Infantry.—Official title, First Regiment, Missouri Volunteer Infantry. Headquarters, Jefferson Barracks, Missouri. Organized (from the First Regiment, Infantry, National Guard of Missouri) and mustered in for war with Spain, May 13, 1898. Strength in officers and men for war with Spain not reported. Name of officer commanding during war operations not reported. Stationed during war: (1) Camp George H. Thomas, Georgia; (2) Jefferson Barracks, Missouri; (3) Armory, St. Louis. Casualties during campaign not reported. The regiment was mustered out at Jefferson Barracks, Oct. 31, 1898.

Second Missouri Infantry.—Official title, Second Regiment, Volunteer Infantry. Headquarters, Carthage. Organized (from the Second Regiment, Infantry, National Guard of Missouri) and mustered in for war with Spain, May 12, 1898. Strength in officers and men for war with Spain, 1,326. Commanded by Col. William K. Caffee during war operations. Stationed during war: (1) Camp Thomas, Georgia; (2) Camp Hamilton, Kentucky; (3) Camp Churchman, Georgia; (4) Jefferson Barracks. Casualties during campaign not reported. The regiment was mustered out at Albany, Ga., March 3, 1899.

Third Missouri Infantry.—Official title, Third Regiment, Missouri Volunteer Infantry. Headquarters, Kansas City. Organized (from the Third Regiment, Infantry, National Guard of Missouri) and mustered in for war with Spain, May 14, 1898. Strength in officers and men for war with Spain, 1,190. Commanded by Col. George P. Gross during war operations. Stationed during war: (1) Jefferson Barracks; (2) Camp Alger, Virginia; (3) Camp Meade, Pennsylvania; (4) Fairmount Park, Kansas City; (5) Graham Barracks, Kansas City. Casualties during campaign not reported. The regiment was mustered out at Kansas City, Nov. 7, 1898.

Fourth Missouri Infantry.—Official title, Fourth Regiment, Missouri Volunteer Infantry. Headquarters, St. Joseph. Organized (from the Fourth Regiment Infantry, National Guard of Missouri) and mustered in for war with Spain, May 16, 1898. The companies from A to M were enrolled at various points throughout the State. Strength in officers and men for war with Spain, 1,326. Commanded by Col. Joseph A. Corby during war operations. Stationed during war: (1) Camp Alger, Virginia; (2) Camp Meade, Pennsylvania. Casualties during campaign, 18 deaths. The regiment was mustered out at Greenville, S. C., Feb. 10, 1899.

Fifth Missouri Infantry.—Official title, Fifth Regiment, Missouri Volunteer Infantry. Headquarters, Kansas City. Organized April 27, 1898. Mustered in for war with Spain, May 18, 1898. Strength of officers and men for war with Spain not reported. Commanded by (1) Col. Milton Moore, (2) Lieut.-Col. Charles H. Morgan, during war operations. Casualties during campaign not reported. The regiment was mustered out at Kansas City, Nov. 9, 1898.

Sixth Missouri Infantry.—Official title, Sixth Regiment, Missouri Volunteer Infantry. Headquarters, Jefferson Barracks. Organized June 27, 1898. Mustered in for war with Spain, July 20-23, 1898. The companies were enrolled at various points throughout the State. Strength in officers and men for war with Spain, 1,323. Commanded by Col. L. Hardeman during war operations. Sent from United States for service in Cuba. Casualties to officers and men during campaign not reported. The regiment, at time of going to press, was still in the service, and stationed in Cuba.

Missouri Light Battery (A).—Official title, Light Battery A, Missouri Volunteers. Headquarters, Jefferson Barracks. Organized (from Light Battery A, National Guard of Missouri) and mustered in for war with Spain, May 9, 1898. Strength in officers and men for war with Spain, 178. Commanded by Capt. Frank M. Rumbold during war operations. Stationed during war: (1) Jefferson Barracks; (2) Camp George H. Thomas, Georgia; (3) Puerto Rico. Sent from United States for service in Puerto Rico. Casualties during campaign: 3 deaths. The battery was mustered out at Jefferson, Nov. 30, 1898.

First Montana Infantry.—Official title, First Montana Infantry, Montana State Volunteers. Headquarters, Helena. Mustered in for war with Spain, May 9, 1898. Strength in officers and men for war with Spain, 1,030. Commanded by Col. H. C. Kessler during war operations. Stationed during war: (1) Camp Robert B. Smith, Helena; (2) Camp Merritt, San Francisco, Cal. Sent from United States for service in the Philippines. Participated in engagements around Manila. Casualties up to April 4, 1899: 1 officer and 21 men killed and 5 officers and 132 men wounded during engagements. The regiment, at time of going to press, is still in the service, and stationed in the Philippines. Lieut.-Col. R. B. Wallace was wounded in leading a charge of the regiment on the enemy's entrenchments at Calocan, Feb. 15, 1899. The regiment carried the enemy's works at the point of the bayonet.

First Nebraska Infantry.—Official title, First Nebraska Infantry (before enlistment, First Regiment, Nebraska National Guard). Headquarters, Bennet. Organized July 12, 1881. This regiment was organized in the early days of the State, coming from the Territorial militia. Many of the officers and men were members of the First Nebraska Volunteers during the Civil War. Mustered in for war with Spain, May 9 and 10, 1898. Served in Indian campaign, Pine Ridge Agency, January, 1891. Strength for war with Spain, 1,328. Commanded by (1) Col. John P. Bratt; (2) Col. John M. Stotsenburg. Stationed during war: (1) Camp Alvin Saunders, Lincoln; (2) Camp Merritt, San Francisco, Cal.; (3) Camp Dewey, Manila. Sent from United States for service in the Philippines. Participated in battles at Manila. Casualties up to April 4, 1899: 4 officers and 25 men killed; 4 men died from wounds, 8 officers and 102 men wounded. The regiment, at the time of going to press, is still in the service, and stationed at Manila.

Second Nebraska Infantry.—Official title, Second Nebraska Infantry (before enlistment, Second Regiment, Nebraska National Guard). Headquarters, Nebraska City. Organized Aug. 9, 1887. Mus-

tered in for war with Spain, May 10, 1898. Served in Indian campaign, Pine Ridge Agency, January, 1891. Strength for war with Spain, 1,328. Commanded by Col. Charles J. Bills during war operations. Stationed during war: (1) Camp Alvin Saunders, Lincoln; (2) Camp George H. Thomas, Chickamauga. Casualties during campaign: 32 deaths. The regiment was mustered out at Fort Omaha, Oct. 24, 1898.

Third Nebraska Infantry.—Official title, Third Nebraska Volunteer Infantry. Organized and mustered in for war with Spain, July 13, 1898. Strength for war with Spain, 1,328. Commanded by (1) Col. William Jennings Bryan; (2) Col. Victor Vifquain. Stationed during war: (1) Fort Omaha; (2) Camp Cuba Libre, Fla.; (3) Camp Columbia, Havana, Cuba. Sent from United States for services in Cuba. Casualties during campaign: 35 deaths. The regiment, at time of going to press, is still in the service, and stationed in Cuba.

First New Hampshire Infantry.—Official title, First New Hampshire Volunteers. Headquarters, Concord. Organized May 7, 1898. Mustered in for war with Spain, May 7-12, 1898. Strength in officers and men for war with Spain, 1,009. Commanded by Col. Robert H. Rolfe during war operations. Stationed during war at Camp Thomas, Chickamauga, Ga. Casualties during campaign: 32 deaths. The regiment was mustered out at Concord, Oct. 31, 1898. The First New Hampshire Infantry, embracing the full quota of the State, consisted of the Third Regiment, New Hampshire National Guard, with two companies of the First and Second Regiments added.

First New Jersey Infantry.—Official title, First Regiment, New Jersey National Guard Volunteer Infantry. Headquarters, Newark. Organized April 14, 1869. Mustered in for war with Spain, May 5-12, 1898. Strength in officers and men for war with Spain, 1,311. Commanded by Col. Edward Campbell during war operations. Stationed during war: (1) Camp Voorhees, Sea Girt, N. J.; (2) Camp Alger, Virginia; (3) Camp Dunn-Loring, Virginia. The regiment was mustered out at Newark, Nov. 4, 1898.

Second New Jersey Infantry.—Official title, Second Regiment, New Jersey National Guard Volunteer Infantry. Headquarters, Paterson. Organized May 31, 1892. Mustered in for war with Spain, May 13-15, 1898. Strength in officers and men for war with Spain, 1,358. Commanded by Col. Edwin W. Hine during war operations. Stationed during war: (1) Camp Voorhees, Sea Girt, N. J.; (2) Camp Cuba Libre, Jacksonville, Fla.; (3) Pablo Beach, Fla. The regiment was mustered out at Paterson, Nov. 17, 1898.

Third New Jersey Infantry.—Official title, Third Regiment, New Jersey National Guard Volunteer Infantry. Headquarters, Elizabeth. Organized April 14, 1869. Mustered in for war with Spain, May 11-13, 1898. Strength in officers and men for war with Spain, 1,315. Commanded by Col. Benjamin A. Lee during war operations. Stationed during war: (1) Camp Voorhees, Sea Girt, N. J.; (2) Fort Hancock, Sandy Hook; (3) Pompton Lakes, New Jersey; (4) Camp Haskell, Athens, Ga. The regiment was mustered out at Athens, Ga., Feb. 11, 1899.

Fourth New Jersey Infantry.—Official title, Fourth Regiment, New Jersey National Guard Volunteer Infantry. Headquarters, Jersey City. Organized April 14, 1869. Mustered in for war with Spain, July 7-24, 1898. Strength in officers and men for war with Spain, 1,356. Commanded by (1) Col. Robert G. Smith; (2) Col. Quincy O'M. Gillmore. Stationed during war: (1) Camp Voorhees, Sea Girt, N. J.; (2) Camp George G. Meade, Middle-

town, Pa.; (8) Camp Wetherill, Greenville, S. C. The regiment, at time of going to press, is still in the service, and waiting at Camp Wetherill to be mustered out.

First New York Infantry.—Official title, First Regiment Infantry, New York Volunteers. Organized April 27, 1898. Mustered in for war with Spain, May 20, 1898. Strength in officers and men for war with Spain, 1,027. Commanded by Col. Thomas H. Barber during war operations. Stationed during war: (1) Camp Black, Hempstead, Long Island; (2) Fort Columbus and Fort Hamilton; (3) Camp Merritt, Presidio, San Francisco; (4) Camp McKinley, Honolulu. This regiment was composed of the Tenth Battalion and volunteers from separate companies (Third, Fifth, Fourteenth, Fifteenth, Twentieth, Twenty-fourth, Thirty-third, and Forty-fourth). The regiment was mustered out at Albany, N. Y., March 1, 1899.

The Tenth Battalion carries, by authority, silver rings on the lances of its colors, inscribed as follows: On the national color—McGill's Ferry, La., Jan. 6, 1863; Ponchatoula, La., March 24, 1863; McGill's Ferry, La., March 24, 1863; Civique's Ferry, La., March 25, 1863; Amite River, La., May 10 and 11, 1863; Port Hudson, La., May 23 to July 8, 1863. On the State color—Helderbergs, 1865; West Albany, 1877; Buffalo, 1892.

Second New York Infantry.—Official title, Second Regiment, Infantry, New York Volunteers. Headquarters, Troy, N. Y. Organized April 27, 1898. Mustered in for war with Spain, May 16-17, 1898. Strength in officers and men for war with Spain, 1,019. Commanded by Col. Edward E. Hardin during war operations. Stationed during war: (1) Camp Black, Hempstead, Long Island; (2) Chickamauga, Ga.; (3) Tampa, Fla.; (4) Fernandina, Fla.; (5) Sand Lake, N. Y. This regiment was composed of volunteers from separate companies (Sixth, Seventh, Ninth, Twelfth, Eighteenth, Twenty-first, Twenty-second, Thirty-first, Thirty-second, Thirty-sixth, Thirty-seventh, and Forty-sixth). The regiment was mustered out at home stations of companies, Nov. 2, 1898.

Third New York Infantry.—Official title, Third Regiment, Infantry, New York Volunteers. Organized April 27, 1898. Mustered in for war with Spain, May 17, 1898. Strength in officers and men for war with Spain, 1,019. Commanded by Col. Edward M. Hoffman during war operations. Stationed during war: (1) Camp Black, Hempstead, Long Island; (2) Camp Alger, Dunn Loring, Va.; (3) Camp Meade, Pennsylvania. The regiment was composed of volunteers from separate companies (First, Second, Eighth, Twenty-fifth, Twenty-ninth, Thirtieth, Thirty-fourth, Forty-first, Forty-second, Forty-third, Forty-seventh, and Forty-eighth). The regiment was mustered out at home stations of companies, Dec. 10, 1898.

Eighth New York Infantry.—Official title, Eighth Regiment, Infantry, New York Volunteers. Headquarters, New York city. Organized July 27, 1847. Mustered in for war with Spain, May 19, 1898. Strength in officers and men for war with Spain, 1,024. Commanded by Col. Henry Chauncey, Jr., during war operations. Stationed during war: (1) Camp Townsend, New York; (2) Camp Thomas, Chickamauga, Ga. The regiment was mustered out at New York city, Nov. 3, 1898.

The regiment (then the Third New York Regiment) performed service for the State at the flour riots in 1826, at the stonecutters' riot in 1835, and at the great fire in New York city, July 19, 1845. Since assuming its present title it has seen service as follows: At the Astor Place riots, May 10, 1849; at the police riots, June 16, 1857; at the dead-rabbit riots, July 5, 1857; at the quarantine war or Sepoy

riots, Sept. 11 to 29, 1858; at the camp of the Corcoran Legion, preserving order, Oct. 18 to 23, 1862; at the draft riots, July, 1863; at the Orange riots, July 12, 1871; at the railroad riots, July 25-29, 1877; and at Brooklyn during the motormen's strike, January, 1895. It was in the service of the United States from Sept. 15 to Dec. 15, 1812; from April 23 to Aug. 2, 1861; from May 29 to Sept. 9, 1862; and from June 17 to July 23, 1863. It was mustered in the United States service as the Eighth Regiment, Infantry, New York Volunteers, May 14, 17, and 19, 1898, and out of such service, Nov. 3, 1898. It has authority to place silver rings on the lances of the colors of the regiment, engraved as follows: On the national color—Fort Gansevoort, 1812; Fort Greene, 1812; Washington, April, 1861; Bull Run, July 21, 1861; Yorktown, 1862; Gettysburg campaign, 1863. On the State color—Flour riot, 1826; stonecutters' riot, 1835; great fire, New York city, 1845; Astor Place riot, 1849; police riot, 1857; dead-rabbit riot, 1857; Sepoy riot, 1858; Camp Corcoran Legion, 1862; draft riots, 1863; Orange riots, 1871; Syracuse, 1877; Brooklyn, 1895.

Ninth New York Infantry.—Official title, Ninth Regiment, Infantry, New York Volunteers. Headquarters, New York city. Organized June, 1859. Mustered in for war with Spain, May 17-25, 1898. Strength in officers and men for war with Spain, 1,026. Commanded by Col. S. James Greene during war operations. Stationed during war: (1) Camp Townsend, New York; (2) Camp Thomas, Chickamauga, Ga. The regiment was mustered out at New York city, Nov. 15, 1898.

The Ninth entered the United States service in 1861 for three years, being known in such service as the Ninth New York State Militia, and also as the Eighty-third New York Volunteers. It rendered the State service in the Orange riot, July 12, 1871; in the railroad riots in July, 1877; at the switchmen's strike at Buffalo in August, 1892; and during the Brooklyn motormen's strike in January, 1895. It has authority to place silver rings on the lances of the colors of the regiment, engraved as follows: On the national color—Harper's Ferry, Va., July 4, 1861; Warrenton Junction, Va., April 6, 1862; Warrenton Junction, Va., April 16, 1862; North Fork River, Va., April 18, 1862; Rappahannock River, Va., May 5, 1862; Cedar Mountain, Va., Aug. 9, 1862; Rappahannock River, Va., Aug. 22, 1862; Rappahannock Station, Va., Aug. 23, 1862; Thoroughfare Gap, Va., Aug. 28, 1862; Bull Run, Va., Aug. 30, 1862; Chantilly, Va., Sept. 1, 1862; South Mountain, Md., Sept. 14, 1862; Antietam, Md., Sept. 17, 1862; Fredericksburg, Va., Dec. 13, 1862; Pollock's Mill Creek, Va., April 29, 1863; Chancellorsville, Va., May 2 and 3, 1863; Gettysburg, Pa., July 1 to 4, 1863; Hagerstown, Md., July 12 and 13, 1863; Liberty, Va., Nov. 21, 1863; Mine Run, Va., Nov. 26 to Dec. 2, 1863; Wilderness, Va., May 5 to 7, 1864; Spottsylvania Courthouse, Va., May 8, 1864; Piney Branch Church, Va., May 8, 1864; Laurel Hill, Va., May 10, 1864; Spottsylvania, Va., May 12, 1864; North Anna, Va., May 22, 1864; Totopotomoy, Va., May 27 to 31, 1864; Cold Harbor, Va., June 1 to 7, 1864. On the State color—Abolition riot, Jan. 11 and 12, 1835; great fire, Dec. 17, 1835; Orange riot, July 12, 1871; West Albany, July, 1877; Buffalo, August, 1892; Brooklyn, Jan., 1895.

Twelfth New York Infantry.—Official title, Twelfth Regiment, Infantry, New York Volunteers. Headquarters, New York city. Organized as the Eleventh Regiment June 21, 1847. Mustered in for war with Spain, May 13, 1898. Strength in officers and men for war with Spain, 1,021. Commanded by Col. Robert H. Leonard during war operations. Stationed during war: (1) Camp Townsend, New

York; (2) Camp Thomas, Chickamauga, Ga.; (3) Camp Hamilton, Lexington, Ky.; (4) Americus, Ga.; (5) Cuba. The regiment, at time of going to press, is still in service, and stationed in Cuba.

The regiment performed duty during the Astor Place riots in 1849. April 21, 1861, the regiment entered the United States service for three months; July 13 took part in a skirmish near Martinsburg, and July 15 near Bunker Hill, W. Va.: Aug. 5, 1861, it was mustered out of service at New York city. May 27, 1862, the regiment again entered the United States service for three months, during which they were engaged in the defense of Harper's Ferry and were present at the surrender, although their services expired Aug. 27, 1862, having volunteered to remain in service until Oct. 15, 1862; Sept. 16, the regiment was paroled; Oct. 8, it was mustered out; and Jan. 11, 1863, declared exchanged. June 20, 1863, the regiment re-entered the service of the United States for thirty days, serving in Pennsylvania and Maryland and in suppressing the draft riots at New York city; it was mustered out by companies between July 20 and 25; but remained in the service of the State until September, 1863. The regiment was on duty during the Orange riots in July, 1871; during the railroad riots in July, 1877; during the switchmen's strike at Buffalo in August, 1892, and at Brooklyn during the motormen's strike in January, 1895.

Fourteenth New York Infantry.—Official title, Fourteenth Regiment, Infantry, New York Volunteers. Headquarters, Brooklyn, N. Y. Organized 1847. Mustered in for war with Spain, May 13-16, 1898. Strength in officers and men for war with Spain, 1,027. Commanded by (1) Col. Frederick D. Grant; (2) Col. Weber E. Wilder during war operations. Stationed during war: (1) Camp Black, Hempstead, Long Island; (2) Camp Thomas, Chickamauga, Ga.; (3) Camp Shipp, Anniston, Ala. The regiment was mustered out at Brooklyn, N. Y., Oct. 27, 1898.

The Fourteenth entered the service of the United States for three years in May, June, and July, 1861; June 1, 1864, those entitled to discharges were mustered out and the re-enlisted men and recruits transferred to the Fifth New York Volunteers. During this service the regiment was also known as the Eighty-fourth New York Volunteers and participated in the following engagements: First Bull Run, Binn's Hill, Falmouth, Cedar Mountain, Rappahannock Station, Beverly Ford, Sulphur Springs, Gainesville, Groveton, Manassas Plains, Fredericksburg, South Mountain, Antietam, Port Royal, Fitzhugh Crossing, Chancellorsville, Seminary Hill, Gettysburg, Mine Run, Wilderness, Laurel Hill, Spottsylvania Courthouse. The regiment was in service during the quarantine disturbances at Fire Island, September, 1892, and the Brooklyn motormen's strike, January, 1895.

Twenty-second New York Infantry.—Official title, Twenty-second Regiment, Infantry, New York Volunteers. Headquarters, New York city. Organized April, 1861. Mustered in for war with Spain, May 24, 1898. Strength in officers and men for war with Spain, 1,023. Commanded by Col. Franklin Bartlett during war operations. Stationed during war: (1) Camp Black, Hempstead, Long Island; (2) Willett's Point; (3) Fort Schuyler and Fort Slocum. The regiment was mustered out at New York city, Nov. 23, 1898.

The Twenty-second entered the United States service May 28, 1862, for three months, and was mustered out Sept. 5, 1862, having been stationed at Washington, D. C., and later forming part of the garrison at Harper's Ferry, Va. June 18, 1863, it was again mustered in the service of the United States for thirty days, and was mustered out July

24, 1863, having during the service taken part in the engagements at Sporting Hill and Carlisle, Pa., June 30 and July 1, 1863. The regiment has performed duty for the State at the draft riots in July, 1863; the Orange riots in July, 1871; the switchmen's strike at Buffalo, August, 1892; and the motormen's strike at Brooklyn, January, 1895. The regiment has been authorized to place rings on its colors, engraved as follows: On the national color—Harper's Ferry, 1862; Gettysburg campaign, 1863; Sporting Hill, Pa., June 30, 1863; Carlisle, Pa., July 1, 1863. On the State color—Draft riots, 1863; Orange riots, 1871; Buffalo, 1892; Brooklyn, 1895.

Forty-seventh New York Infantry.—Official title, Forty-seventh Regiment, Infantry, New York Volunteers. Headquarters, Brooklyn, N. Y. Organized 1862. Mustered in for war with Spain, May 24, 1898. Strength for war with Spain 1,024. Commanded by (1) Col. John G. Eddy; (2) Col. William H. Hubbell. Stationed during war: (1) Camp Black, Hempstead, Long Island; (2) Quonset, R. I.; (3) Fort Adams, Dutch Island, R. I.; (4) Puerto Rico. Sent from United States for service in Puerto Rico. Served at Caguas, Guayama, Viesquez, Carolina, Arbonito, Caye, Fayardo, Humacao. The regiment, at time of going to press, is stationed at Brooklyn, N. Y., and about to be mustered out.

The regiment entered the United States service for three months, May 27, 1862, and was mustered out Sept. 1, 1862; it was remustered into service June 17, 1863, and mustered out July 23, 1863, by reason of expiration of term of service. It served the State during the draft riots, July, 1863; railroad riots, July, 1877; the quarantine disturbances at Fire Island, September, 1892; and the motormen's strike, January, 1895. The regiment received authority to place silver rings on the lances of its colors, engraved as follows: On the national color—Fort McHenry, Md., 1862; Washington, D. C., 1863. On the State color—Railroad strike, 1877; Fire Island, 1892; Brooklyn, 1895.

Sixty-fifth New York Infantry.—Official title, Sixty-fifth Regiment, Infantry, New York Volunteers. Headquarters, Buffalo, N. Y. Organized 1848. Mustered in for war with Spain, May 17, 1898. Strength in officers and men for war with Spain, 1,030. Commanded by Col. Samuel M. Welch, Jr., during war operations. Stationed during war: (1) Camp Black, Hempstead, Long Island; (2) Camp Alger, Dunn Loring, Va. The regiment was mustered out at Buffalo, N. Y., Nov. 19, 1898.

It performed duty for the State in 1849 in quelling a riot; in 1863 during the draft riots; in 1877 during the railroad riots; in 1892 during the switchmen's strike at Buffalo; and at Tonawanda in 1893. It entered the service of the United States June 19, 1863, and was mustered out July 30, 1863. In October, 1864, practically the whole of this regiment, as part of the One Hundred and Eighty-seventh Regiment New York Volunteers, was again mustered in the United States service for one year and mustered out July 1, 1865. It received authority to place silver rings on the lances of its colors inscribed as follows: On the national color—Gettysburg campaign, 1863; before Petersburg, Va., Oct. 20, 1864, to April 2, 1865; Hatcher's Run, Va., Oct. 27-28, 1864; Hicksford Raid, Va., Dec. 6-11, 1864; Hatcher's Run, Va., Feb. 5-7, 1865; Appomattox campaign, Va., March 28 to April 9, 1864; White Oak Ridge, March 29-31, 1865; Five Forks, April 1, 1865; fall of Petersburg, April 2, 1865; Appomattox Courthouse, April 9, 1865. On the State color—Canal riot, Buffalo, 1849; draft riots, New York, 1863; railroad strike, Buffalo, 1877; railroad strike, Buffalo, 1892; lumbermen's strike, Tonawanda, 1893.

Sixty-ninth New York Infantry.—Official title, Sixty-ninth Regiment, Infantry, New York Volunteers. Headquarters, New York city. Organized Oct. 12, 1851. Mustered in for war with Spain, May 19, 1898. Strength in officers and men for war with Spain, 1,026. Commanded by Col. Edward Duffy during war operations. Stationed during war: (1) Camp Black, Hempstead, Long Island; (2) Camp Thomas, Chickamauga, Ga.; (3) Tampa, Fla.; (4) Fernandina, Fla.; (5) Huntsville, Ala. The regiment was mustered out at New York city, Jan. 8, 1899.

The Sixty-ninth was mustered in the United States service May 9, 1861, at Washington, D. C., to serve three months, and mustered out Aug. 3, 1861, during which service it took part in the actions at Blackburn's Ford and Bull Run. In August, 1861, about 800 men of this regiment joined the Sixty-ninth New York Volunteers, to serve three years. The regiment was again recruited and re-entered the service of the United States May 26, 1862, to serve three months; it was mustered out of service Sept. 3, 1862. On the return from this service again the major part of the regiment entered the service of the United States for three years as the Sixty-ninth National Guard Artillery or One Hundred and Eighty-second New York Volunteers. The regiment, having been reorganized, was mustered in the service of the United States for thirty days from June 25 to July 25, 1863. July 6, 1864, it was again mustered in the United States service for three months, and mustered out Oct. 6, 1864. The regiment has rendered the State service during the quarantine riots in 1858; the draft riots, 1863; and the quarantine disturbances in 1892. It was reduced, Dec. 6, 1893, to a battalion of 5 companies. The battalion was on duty at Brooklyn during the motormen's strike in January, 1895. New companies were organized for the battalion in 1895. The battalion was reconstituted a regiment Sept. 4, 1895.

Seventy-first New York Infantry.—Official title, Seventy-first Regiment, Infantry, New York Volunteers. Headquarters, New York city. Organized August, 1852. Mustered in for war with Spain, May 10, 1898. Strength in officers and men for war with Spain, 1,024. Commanded by (1) Col. Francis V. Greene; (2) Col. Wallace A. Downs. Stationed during war: (1) Camp Black, Hempstead, Long Island; (2) Ybor City, Fla.; (3) Tampa, Fla.; (4) Cuba; (5) Montauk Point, Long Island. Participated in engagements at San Juan Hill, Cuba. Casualties during campaign: 12 men killed, and 1 officer and 67 men wounded. The regiment was mustered out at New York city, Nov. 15, 1898.

The American Rifles, a battalion of 4 companies, formed the nucleus of the regiment. Sept. 21, 1870, the Thirty-Seventh Regiment was consolidated with the Seventy-first Regiment. In 1861 it entered the United States service for three months, from April 21 to July 30; in 1862 it re-entered the same service May 29 for three months, at the expiration of which it volunteered to remain, and remained until Sept. 1; in 1863 it was mustered in the United States service for thirty days, and served from June 17 to July 22. It participated in engagements at Aquia Creek, June 20, 1861; Bull Run, Va., July 21, 1861; Kingston, Pa., June 26, 1863; Fort Washington, Pa., June 29, 1863; draft riots in New York city, July, 1863; Orange riots in 1871; railroad riots in 1877; switchmen's strike at Buffalo, August, 1892; and motormen's strike at Brooklyn, January, 1895. It received authority to place silver rings on the lances of its colors, inscribed as follows: On the national color—Alexandria, Va., May 24, 1861; Aquia Creek, Va., May 31, 1861; Matthias Point, Va., June 27, 1861; Bull Run, Va., July 21, 1861; Tenallytown, D. C., 1862;

Washington, D. C., 1862; Gettysburg campaign, 1863; Kingston, Pa., June 26, 1863; near Harrisburg, Pa., June 29, 1863. On the State color—dead-rabbit riot, 1857; quarantine riots, 1858; draft riots, 1863; Orange riots, 1871; railroad riots, 1877; Buffalo, 1892; Brooklyn, 1895.

Two Hundred and First New York Infantry.—Official title, Two Hundred and First Regiment, Infantry, New York Volunteers. Organized July 10, 1898. Mustered in for war with Spain, July 16-26, 1898. Strength for war with Spain, 1,275. Commanded by Col. Henry W. Hubbell during war operations. Stationed during war: (1) Camp Black, Hempstead, Long Island; (2) Camp Meade, Pennsylvania; (3) Athens, Ga.; (4) Greenville, S. C. The regiment, at time of going to press, is still in the service, stationed at Greenville, S. C.

Two Hundred and Second New York Infantry.—Official title, Two Hundred and Second Regiment, Infantry, New York Volunteers. Organized July 10, 1898. Mustered in for war with Spain, Aug. 8, 1898. Strength in officers and men for war with Spain, 1,300. Commanded by Col. Stephen Y. Seyburn during war operations. Stationed during war: (1) Camp Black, Hempstead, Long Island; (2) Camp Meade, Pennsylvania; (3) Camp Haswell, Athens, Ga.; (4) Cuba. The regiment, at time of going to press, is still in the service and stationed in Cuba.

Two Hundred and Third New York Infantry.—Official title, Two Hundred and Third Regiment, Infantry, New York Volunteers. Organized July 10, 1898. Mustered in for war with Spain, July 15-24, 1898. Strength in officers and men for war with Spain, 1,286. Commanded by Col. Walter L. Schuyler during war operations. Stationed during war: (1) Camp Black, Hempstead, Long Island; (2) Camp Meade, Pennsylvania; (3) Greenville, S. C. The regiment, at time of going to press, is still in the service, and stationed at Camp Wetherill, Greenville, S. C.

New York Cavalry (Squadron A).—Official title, Troop A, New York Volunteer Cavalry. Headquarters, New York city. Organized April 3, 1889. Mustered in for war with Spain, May 20, 1898. Strength in officers and men for war with Spain, 84. Commanded by Capt. Howard G. Badgley during war operations. Stationed during war: (1) Camp Black, Hempstead, Long Island; (2) Camp Alger, Dunn Loring, Va.; (3) Puerto Rico. Sent from United States for service in Puerto Rico. Served at Ponce, Coamo, Santa Isabel, Ceuta. The troop was mustered out at New York city, Nov. 28, 1898.

Troop A performed duty at Buffalo during the switchmen's strike in August, 1892, and at Brooklyn during the motormen's strike in January, 1895.

New York Cavalry (Squadron C).—Official title, Troop C, New York Volunteer Cavalry. Headquarters, Brooklyn, N. Y. Organized Dec. 16, 1895. Mustered in for war with Spain, May 20, 1898. Strength in officers and men for war with Spain, 84. Commanded by Capt. Bertram T. Clayton during war operations. Stationed during war: (1) Camp Black, Hempstead, Long Island; (2) Camp Alger, Dunn Loring, Va.; (3) Puerto Rico. Sent from United States for service in Puerto Rico. Served at Ponce, Coamo, Juana Diaz, Ceuta. Participated in engagements at Arbonito Road, Puerto Rico. The troop was mustered out at Brooklyn, N. Y., Nov. 25, 1898.

New York Light Battery (Fourth).—Official title, Fourth Battery, Light Artillery, New York Volunteers. Organized July 18, 1898. Mustered in for war with Spain, July 27, 1898. Strength in officers and men for war with Spain, 109. Commanded by Capt. W. L. Flanagan during war operations. Stationed during war at Camp Black, Hempstead.

Long Island. The battery was mustered out at New York city, Oct. 21, 1898.

New York Light Battery (Fifth).—Official title, Fifth Battery, Light Artillery, New York Volunteers. Organized July 18, 1898. Mustered in for war with Spain, July 27, 1898. Strength in officers and men for war with Spain, 108. Commanded by Capt. Theodore F. Schmidt during war operations. Stationed during war at Camp Black, Hempstead, Long Island. The battery was mustered out at New York city, Oct. 24, 1898.

New York Light Battery (Seventh).—Official title, Seventh Battery, Light Artillery, New York Volunteers. Organized July 18, 1898. Mustered in for war with Spain, July 27, 1898. Strength in officers and men for war with Spain, 108. Commanded by Capt. Lansford F. Sherry during war operations. Stationed during war at Camp Black, Hempstead, Long Island. The battery was mustered out, Nov. 30, 1898.

First North Carolina Infantry.—Official title, First North Carolina Volunteer Infantry. Headquarters, Statesville, N. C. Organized Oct. 19, 1882, as Fourth Regiment of the North Carolina State Guard. Mustered in for war with Spain, May 12, 1898. Strength in officers and men for war with Spain: 50 officers, 1,277 enlisted men. Commanded by Col. J. F. Armfield during war operations. Stationed during war: (1) Raleigh, N. C.; (2) Jacksonville, Fla.; (3) Cuba. Sent from United States for service in Cuba. The regiment, at time of going to press, is still in the service, and stationed in Cuba.

Second North Carolina Infantry.—Official title, Second North Carolina Volunteer Infantry. This regiment was made up from 4 companies of the State Guard and by enlistment of other companies. Mustered in for war with Spain, May 27, 1898. Strength in officers and men for war with Spain, 50 officers, 1,277 enlisted men. Commanded by Col. W. H. S. Burgwyn during war operations. Stationed during war: By detachments (1) Fort McPherson, Georgia; (2) Lands End, South Carolina; (3) St. Simon's Island, Georgia; (4) Tybee Island, Georgia. The regiment was mustered out by companies at home stations, Nov. 5, 1898.

Third North Carolina (Colored) Infantry.—Official title, Third North Carolina Volunteer Infantry. This regiment was composed and officered by colored men. Three companies were originally mustered in as Russell Black Battalion, which was subsequently expanded to a regiment of 10 companies. Its foundation was the Charlotte Light Infantry of the North Carolina State Guard. Mustered in for war with Spain, July 19, 1898. Strength in officers and men for war with Spain: 40 officers, 1,065 enlisted men. Commanded by Col. James R. Young during war operations. Stationed during war: (1) Raleigh, N. C.; (2) Knoxville, Tenn.; (3) Macon, Ga. The regiment was mustered out at Macon, Ga., Feb. 8, 1899.

First North Dakota Infantry.—Official title, First Infantry, North Dakota Volunteers (formerly First Infantry, North Dakota National Guard). Headquarters, Valley City. Organized for National Guard, April 1, 1885. Mustered in for war with Spain, May 2, 1898. Strength in officers and men for war with Spain, 685. Commanded by Lieut.-Col. William C. Trueman during war operations. Stationed during war: (1) Fargo; (2) San Francisco, Cal.; (3) Philippines. Sent from United States for service in the Philippines. Participated in the battle at Manila and subsequent engagements. Casualties up to April 4, 1899: 1 man killed, and 3 officers and 5 men wounded. The regiment, at time of going to press, is still in the service, and stationed in the Philippines.

First Ohio Infantry.—Official title, First Ohio Volunteer Infantry. Headquarters, Cincinnati. Organized as First Regiment, Ohio National Guard, June 21, 1875; as First Regiment, Ohio Volunteer Infantry, April 25, 1898. Mustered in for war with Spain, May 6, 1898. Strength for war with Spain: 50 officers, 1,302 enlisted men. Commanded by Col. Charles B. Hunt during war operations. Stationed during war: (1) Chickamauga, Ga.; (2) Tampa, Fla.; (3) Fernandina, Fla.; (4) Jacksonville, Fla. Casualties during campaign: death of 10 men. The regiment was mustered out at Cincinnati, Oct. 25, 1898.

Second Ohio Infantry.—Official title, Second Ohio Volunteer Infantry. Headquarters, Cincinnati. Organized as Second Regiment, Ohio National Guard, July 1, 1879; as Second Regiment, Ohio Volunteer Infantry, April 25, 1898. Mustered in for war with Spain, May 10, 1898. Strength for war with Spain: 50 officers, 1,284 enlisted men. Commanded by Col. Julius A. Kuert during war operations. Stationed during war: (1) Chickamauga, Ga.; (2) Knoxville, Tenn.; (3) Macon, Ga. Casualties during campaign: death of 14 men. The regiment was mustered out at Macon, Ga., Feb. 10, 1899.

Third Ohio Infantry.—Official title, Third Ohio Volunteer Infantry. Headquarters, Springfield. Organized as Third Regiment, Ohio National Guard, July 21, 1875; as Third Regiment, Ohio Volunteer Infantry, April 25, 1898. Mustered in for war with Spain, May 10, 1898. Strength for war with Spain: 42 officers, 1,313 enlisted men. Commanded by Col. Charles Anthony during war operations. Stationed during war: (1) Tampa, Fla.; (2) Fernandina, Fla.; (3) Huntsville, Ala. Casualties during campaign: death of 2 officers and 8 men. The regiment was mustered out at Columbus, Ohio, Oct. 26, 1899.

Fourth Ohio Infantry.—Official title, Fourth Ohio Volunteer Infantry. Headquarters, Columbus. Organized as Fourteenth Regiment, Ohio National Guard, Oct. 20, 1877; as Fourth Ohio Volunteer Infantry April 25, 1898. Mustered in for war with Spain, May 9, 1898. Strength for war with Spain: 49 officers, 1,319 enlisted men. Commanded by Col. Alonzo B. Coit during war operations. Stationed during war: (1) Chickamauga, Ga.; (2) Puerto Rico. Took part in invasion of Puerto Rico and skirmish when advancing from Guayama. Casualties during campaign: death of 28 men. The regiment was mustered out at Columbus, Jan. 20, 1899.

Fifth Ohio Infantry.—Official title, Fifth Ohio Volunteer Infantry. Headquarters, Cleveland. Organized as Fifth Regiment, Ohio National Guard, June 16, 1884; as Fifth Regiment, Ohio Volunteer Infantry, April 25, 1898. Mustered in for war with Spain May 11, 1898. Strength for war with Spain: 48 officers, 1,302 enlisted men. Commanded by Col. Cortland L. Kennan during war operations. Stationed during war: (1) Tampa, Fla.; (2) Fernandina, Fla. Casualties during campaign: death of 20 men. The regiment was mustered out at Cleveland, Nov. 5, 1898.

Sixth Ohio Infantry.—Official title, Sixth Ohio Volunteer Infantry. Headquarters, Toledo. Organized as Sixteenth Regiment, Ohio National Guard, Sept. 14, 1877; as Sixth Ohio Volunteer Infantry April 25, 1898. Mustered in for war with Spain, May 12, 1898. Strength for war with Spain: 49 officers, 1,299 enlisted men. Commanded by Col. William V. McMaken during war operations. Stationed during war: (1) Chickamauga, Ga.; (2) Knoxville, Tenn.; (3) Charleston, S. C.; (4) Cuba. Casualties during campaign: death of 21 men. The regiment, at time of going to press, is still in the service, and stationed in Cuba.

Seventh Ohio Infantry.—Official title, Seventh Ohio Volunteer Infantry. Headquarters, Chillicothe. Organized as Seventeenth Regiment, Ohio National Guard, Sept. 14, 1877; as Seventh Ohio Volunteer Infantry, April 25, 1898. Mustered in for war with Spain, May 13, 1898. Strength for war with Spain: 49 officers, 1,304 enlisted men. Commanded by Col. Arthur L. Hamilton during war operations. Stationed during war: (1) Camp Alger, Virginia; (2) Camp Meade, Pennsylvania; (3) Camp Bushnell, Ohio. Casualties during campaign: 8 deaths, including 1 officer. The regiment was mustered out at Columbus, Nov. 6, 1898.

Eighth Ohio Infantry.—Official title, Eighth Ohio Volunteer Infantry. Headquarters, Wooster. Organized as Eighth Regiment, Ohio National Guard, Feb. 21, 1877; as Eighth Regiment, Ohio Volunteer Infantry, April 25, 1898. Mustered in for war with Spain, May 13, 1898. Strength for war with Spain: 49 officers, 1,288 enlisted men. Commanded by Col. Curtis V. Hard during war operations. Stationed during war: (1) Camp Alger, Virginia; (2) Cuba; (3) Montauk Point, N. Y. Casualties during campaign: 72 deaths, including 4 officers. The regiment was mustered out at Wooster, Nov. 21, 1898.

Ninth Ohio Infantry (Colored Battalion).—Official title, Ninth Battalion, Ohio Volunteer Infantry. Headquarters, Columbus. Organized as Ninth Battalion, Ohio National Guard, July 18, 1881; as Ninth Battalion, Ohio Volunteer Infantry, April 25, 1898. Mustered in for war with Spain, May 14, 1898. Strength for war with Spain: 16 officers, 431 enlisted men. Commanded by Major Charles Young during war operations. Stationed during war: (1) Camp Alger, Virginia; (2) Camp Meade, Pennsylvania; (3) Camp Marion, South Carolina. Casualties during campaign: death of 5 men. The regiment was mustered out at Camp Marion, Jan. 28, 1899.

Tenth Ohio Infantry.—Official title, Tenth Ohio Volunteer Infantry. Organized July 1, 1898. Strength for war with Spain: 46 officers, 1,280 enlisted men. Commanded by Col. Henry A. Axline during war operations. Stationed during war: (1) Camp Meade, Pennsylvania; (2) Camp Mackenzie, Georgia. The regiment, at time of going to press, is still in the service, and stationed at Camp Mackenzie, Georgia.

First Ohio Cavalry.—Official title, First Ohio Volunteer Cavalry. Headquarters of Troop A, Cleveland; Battery B, First Light Artillery (forming part of this organization), Cincinnati. Organized April 25, 1898. Mustered in for war with Spain, May 9, 1898. Strength for war with Spain: 33 officers, 316 enlisted men. Commanded by Lieut.-Col. Matthias W. Day during war operations. Stationed during war: (1) Chickamauga, Ga.; (2) Lakeland, Fla.; (3) Huntsville, Ala. Casualties during campaign: death of 8 men. Mustered out at Cleveland, Cincinnati, and Columbus, October, 1898.

Ohio Light Artillery (First Battalion).—Official title, First Ohio Volunteer Light Artillery. Headquarters, Zanesville. Organized as First Light Artillery, Ohio National Guard, May 6, 1886; as First Light Artillery, Ohio Volunteers, April 25, 1898. Mustered in for war with Spain, May 11, 1898. Strength for war with Spain: 20 officers, 707 enlisted men. Commanded by Major Charles T. Atwell during war operations. Stationed during war: (1) Chickamauga, Ga.; (2) Camp Bushnell, Ohio. Casualties during campaign: death of 13 men. The battalion was mustered out at Columbus, Oct. 21, 1898.

Second Oregon Infantry.—Official title, Second Regiment, Oregon Volunteers. Headquarters, Portland. Organized June 1, 1887. Mustered in for

war with Spain, May 15, 1898. Strength for war with Spain: 50 officers, 1,272 men. Commanded by Col. Owen Summers during war operations. Sent from United States for service in the Philippines. Participated in engagements with the insurgents. Casualties up to April 4, 1899: 2 officers and 10 men killed, 2 officers and 60 men wounded. The regiment, at time of going to press, is still in the service, and stationed at Manila.

Oregon Light Battery (A).—Official title, Light Battery A, Oregon Volunteers. Headquarters, Portland. Organized June 8, 1887. Mustered in for war with Spain, July 1, 1898. Strength for war with Spain: 3 officers, 106 enlisted men. Commanded by Capt. R. S. Greenleaf during war operations. Stationed during war at Vancouver Barracks. The battery was mustered out at Vancouver Barracks, Oct. 15, 1898.

Oregon Light Battery (B).—Official title, Light Battery B, Oregon Volunteers. Headquarters, Portland. Mustered in for war with Spain, July 26, 1898. Strength for war with Spain: 3 officers, 106 enlisted men. Commanded by Capt. William J. Riley during war operations. Stationed during war at Multnomah County Armory, Portland. The battery was mustered out at Portland, Oct. 20, 1898.

First Pennsylvania Infantry.—Official title, First Regiment, Infantry, Pennsylvania Volunteers. Headquarters, Philadelphia. Organized and mustered in for war with Spain, May 11, 1898. Strength in officers and men for war with Spain, 1,155. Commanded by (1) Col. Wendell P. Bowman; (2) Col. J. Lewis Good, during war operations. Stationed during war: (1) Mount Gretna, Pa.; (2) Chickamauga, Ga.; (3) Knoxville, Tenn. Casualties during campaign: 13 deaths. The regiment was mustered out at Philadelphia, Oct. 26, 1898.

Second Pennsylvania Infantry.—Official title, Second Regiment, Infantry, Pennsylvania Volunteers. Headquarters, Philadelphia. Organized and mustered in for war with Spain, May 13, 1898. Strength in officers and men for war with Spain, 1,115. Commanded by Col. John Biddle Porter during war operations. Stationed during war: (1) Mount Gretna, Pa.; (2) Pompton Lakes, N. J.; (3) Penn's Grove, N. J.; (4) Montchanin, Del. Casualties during campaign: 2 deaths. The regiment was mustered out at Philadelphia, Nov. 15, 1898.

Third Pennsylvania Infantry.—Official title, Third Regiment, Infantry, Pennsylvania Volunteers. Headquarters, Philadelphia. Organized and mustered in for war with Spain, May 11, 1898. Strength in officers and men for war with Spain, 1,037. Commanded by Col. Robert Ralston during war operations. Stationed during war: (1) Mount Gretna, Pa.; (2) Chickamauga, Ga.; (3) Port Tampa, Fla.; (4) Fernandina, Fla.; (5) Huntsville, Ala. Casualties during campaign: 13 deaths. The regiment was mustered out at Philadelphia, Oct. 22, 1898.

Fourth Pennsylvania Infantry.—Official title, Fourth Regiment, Infantry, Pennsylvania Volunteers. Headquarters, Columbia. Organized and mustered in for war with Spain, May 10, 1898. Strength in officers and men for war with Spain, 1,314. Commanded by Col. D. Brainard Case during war operations. Stationed during war: (1) Mount Gretna, Pa.; (2) Chickamauga, Ga.; (3) Newport News, Va.; (4) Puerto Rico. Sent from United States for service in Puerto Rico. Casualties during campaign: 35 deaths. The regiment was mustered out at home stations of companies, Nov. 16, 1898.

Fifth Pennsylvania Infantry.—Official title, Fifth Regiment, Infantry, Pennsylvania Volunteers. Headquarters, Altoona. Organized and mustered in for war with Spain, May 11, 1898. Strength in

officers and men for war with Spain, 1,818. Commanded by Col. Theodore Burchfield during war operations. Stationed during war: (1) Mount Gretna, Pa.; (2) Chickamauga, Ga.; (3) Lexington, Ky. Casualties during campaign: 18 deaths. The regiment was mustered out at home stations of companies, Nov. 7, 1898.

Sixth Pennsylvania Infantry.—Official title, Sixth Regiment, Infantry, Pennsylvania Volunteers. Headquarters, Norristown. Organized and mustered in for war with Spain, May 13, 1898. Strength in officers and men for war with Spain, 1,364. Commanded by Col. John W. Schall during war operations. Stationed during war: (1) Mount Gretna, Pa.; (2) Camp Alger, Virginia; (3) Thoroughfare, Va.; (4) Camp Meade, Pennsylvania. Casualties to officers and men during campaign: 8 deaths. The regiment was mustered out at home stations of companies, Oct. 17, 1898.

Eighth Pennsylvania Infantry.—Official title, Eighth Regiment, Infantry, Pennsylvania Volunteers. Headquarters, Shamokin. Organized and mustered in for war with Spain, May 12, 1898. Strength in officers and men for war with Spain, 1,124. Commanded by Col. Theodore F. Hoffman during war operations. Stationed during war: (1) Mount Gretna, Pa.; (2) Camp Alger, Virginia; (3) Camp Meade, Pennsylvania; (4) Augusta, Ga. Casualties during campaign: 9 deaths. The regiment was mustered out at Augusta Ga., March 7, 1899.

Ninth Pennsylvania Infantry.—Official title, Ninth Regiment, Infantry, Pennsylvania Volunteers. Headquarters, Wilkesbarre, Pa. Organized and mustered in for war with Spain, May 11, 1898. Strength in officers and men for war with Spain, 1,324. Commanded by Col. C. B. Dougherty during war operations. Stationed during war: (1) Mount Gretna, Pa.; (2) Chickamauga, Ga.; (3) Rossville, Ga.; (4) Lexington, Ky. Casualties during campaign: 27 deaths. The regiment was mustered out at home stations of companies, Oct. 29, 1898.

Tenth Pennsylvania Infantry.—Official title, Tenth Regiment, Infantry, Pennsylvania Volunteers. Headquarters, Washington, Pa. Organized and mustered in for war with Spain, May 12, 1898. Strength in officers and men for war with Spain, 908. Commanded by Col. Alexander L. Hawkins during war operations. Stationed during war: (1) Mount Gretna, Pa.; (2) San Francisco, Cal.; (3) Manila. Sent from United States for service in the Philippines. Participated in engagements at Manila, including fights in the trenches. Casualties up to April 4, 1899: 14 men killed, 3 officers and 38 men wounded. The regiment, at time of going to press, is still in the service, and stationed at Manila.

Twelfth Pennsylvania Infantry.—Official title, Twelfth Regiment, Infantry, Pennsylvania Volunteers. Headquarters, Williamsport. Organized and mustered in for war with Spain, May 13, 1898. Strength in officers and men for war with Spain, 908. Commanded by Col. James B. Coryell during war operations. Stationed during war: (1) Mount Gretna, Pa.; (2) Camp Alger, Virginia; (3) Camp Meade, Pennsylvania. Casualties during campaign: 24 deaths. The regiment was mustered out at home stations of companies, Oct. 29, 1898.

Thirteenth Pennsylvania Infantry.—Official title, Thirteenth Regiment, Infantry, Pennsylvania Volunteers. Headquarters, Williamsport. Organized and mustered in for war with Spain, May 13, 1898. Strength in officers and men for war with Spain, 905. Commanded by Col. Henry A. Coursen during war operations. Stationed during war: (1) Mount Gretna, Pa.; (2) Camp Alger, Virginia; (3) Camp Meade, Pennsylvania; (4) Augusta, Ga. Casualties during campaign: 21 deaths. The regiment was mustered out at Augusta, Ga., March 11, 1899.

Fourteenth Pennsylvania Infantry.—Official title, Fourteenth Regiment, Infantry, Pennsylvania Volunteers. Headquarters, Pittsburg. Organized and mustered in for war with Spain, May 12, 1898. Strength in officers and men for war with Spain, 891. Commanded by Col. William J. Glenn during war operations. Stationed during war: (1) Mount Gretna, Pa.; (2) Fort Mott, New Jersey, and Fort Delaware, Delaware; (3) Camp Meade, Pennsylvania; (4) Summerville, S. C. Casualties during campaign: 13 deaths. The regiment was mustered out at Summerville, S. C., Feb. 28, 1899.

Fifteenth Pennsylvania Infantry.—Official title, Fifteenth Regiment, Infantry, Pennsylvania Volunteers. Headquarters, Greenville. Organized and mustered in for war with Spain, May 11, 1898. Strength in officers and men for war with Spain, 891. Commanded by Col. William A. Kreps during war operations. Stationed during war: (1) Mount Gretna, Pa.; (2) Sheridan's Point, Va., and Fort Washington, Maryland; (3) Camp Meade, Pennsylvania; (4) Athens, Ga. Casualties during campaign: 7 deaths. The regiment was mustered out at Athens, Ga., Jan. 31, 1899.

Sixteenth Pennsylvania Infantry.—Official title, Sixteenth Regiment, Infantry, Pennsylvania Volunteers. Headquarters, Oil City. Organized and mustered in for war with Spain, May 10, 1898. Strength in officers and men for war with Spain, 1,344. Commanded by (1) Col. Willis J. Hulings; (2) Col. George C. Rickards, during war operations. Stationed during war: (1) Mount Gretna, Pa.; (2) Chickamauga, Ga.; (3) Puerto Rico. Sent from United States for service in Puerto Rico. Participated in engagement at San Juan Road and in skirmishes near Coamo, Puerto Rico. Casualties during campaign: 39 deaths. The regiment was mustered out at home stations of companies, Dec. 28, 1898.

Eighteenth Pennsylvania Infantry.—Official title, Eighteenth Regiment, Infantry, Pennsylvania Volunteers. Headquarters, Pittsburg. Organized and mustered in for war with Spain, May 13, 1898. Strength in officers and men for war with Spain, 889. Commanded by Col. Norman M. Smith during war operations. Stationed during war: (1) Mount Gretna, Pa.; (2) Alliance, Ohio, and Delaware City, Del.; (3) Camp Meade, Pennsylvania. Casualties during campaign: 1 death. The regiment was mustered out at Pittsburg, Oct. 22, 1898.

Pennsylvania Cavalry (Philadelphia City Troop).—Official title, First Troop, Philadelphia City Cavalry, Pennsylvania Volunteers. Headquarters, Philadelphia. Organized and mustered in for war with Spain, May 7, 1898. Strength in officers and men for war with Spain, 108. Commanded by Capt. John C. Groome during war operations. Stationed during war: (1) Mount Gretna, Pa.; (2) Camp Alger, Virginia; (3) Newport News, Va.; (4) Puerto Rico. Sent from United States for service in Puerto Rico. Casualties during campaign: 1 death. The troop was mustered out at Philadelphia, Nov. 21, 1898.

Pennsylvania Cavalry (Governor's Troop).—Official title, Governor's Troop, Cavalry, Pennsylvania Volunteers. Headquarters, Harrisburg. Organized and mustered in for war with Spain, May 13, 1898. Strength in officers and men for war with Spain, 100. Commanded by Capt. Frederick M. Ott during war operations. Stationed during war: (1) Mount Gretna, Pa.; (2) Camp Alger, Virginia; (3) Newport News, Va.; (4) Puerto Rico. Sent from United States for service in Puerto Rico. The troop was mustered out at Harrisburg, Nov. 21, 1898.

Pennsylvania Cavalry (Sheridan Troop).—Official title, Sheridan Troop, Cavalry, Pennsylvania Volunteers. Headquarters, Tyrone. Organized and mustered in for war with Spain, May 11, 1898.

Strength in officers and men for war with Spain, 103. Commanded by Capt. and Major Charles S. W. Jones during war operations. Stationed during war: (1) Mount Gretna, Pa.; (2) Camp Alger, Virginia; (3) Newport News, Va.; (4) Puerto Rico. Sent from United States for service to Puerto Rico. The troop was mustered out at Tyrone, Nov. 16, 1898.

Pennsylvania Light Battery (A).—Official title, Light Battery A, Pennsylvania Volunteers. Headquarters, Philadelphia. Organized and mustered in for war with Spain, May 6, 1898. Strength in officers and men for war with Spain, 183. Commanded by Capt. Barclay H. Warburton during war operations. Stationed during war: (1) Mount Gretna, Pa.; (2) Newport News, Va.; (3) Puerto Rico. Sent from United States for service in Puerto Rico. Casualties during campaign, 4 deaths. The battery was mustered out at Philadelphia, Nov. 19, 1898.

Pennsylvania Light Battery (B).—Official title, Light Battery B, Pennsylvania Volunteers. Headquarters, Pittsburg. Organized and mustered in for war with Spain, May 8, 1898. Strength in officers and men for war with Spain, 177. Commanded by Capt. Alfred E. Hunt during war operations. Stationed during war: (1) Mount Gretna, Pa.; (2) Chickamauga, Ga.; (3) Newport News, Va.; (4) Puerto Rico. Sent from United States for service in Puerto Rico. Casualties during campaign: 1 death. The battery was mustered out at Pittsburg, Nov. 27, 1898.

Pennsylvania Light Battery (C).—Official title, Pennsylvania Volunteers. Headquarters, Phoenixville. Organized and mustered in for war with Spain, May 6, 1898. Strength in officers and men for war with Spain, 177. Commanded by (1) Capt. George Waters; (2) Capt. Francis M. Beane, during war operations. Stationed during war: (1) Mount Gretna, Pa.; (2) Newport News, Va.; (3) Puerto Rico. Sent from United States for service in Puerto Rico. Casualties during campaign: 4 deaths. The battery was mustered out at Phoenixville, Nov. 28, 1898.

First Rhode Island Infantry.—Official title, First Regiment, Rhode Island Volunteer Infantry. Organized April 23, 1898. Mustered in for war with Spain, May 18 and June 28, 1898. Strength for war with Spain, 1,326. Commanded by Col. Charles W. Abbot, Jr. (captain Twelfth United States Infantry), during war operations. Stationed during campaign: (1) Fort Dyer, Rhode Island; (2) Camp Alger, Virginia; (3) Camp Meade, Pennsylvania; (4) Columbia, S. C. Casualties during campaign, 14 deaths. The regiment, at time of going to press, is still in the service, and located at Columbia, S. C.

Rhode Island Light Battery (A).—Official title, Light Battery A, First Regiment, Artillery, Rhode Island Volunteers. Headquarters, Providence. Organized May 28, 1879. Mustered in for war with Spain, June 25, 1898. Strength for war with Spain, 110. Commanded by Capt. Edgar R. Barker during war operations. Stationed during war at Camp Dyer, Quonset Point, R. I. The battery was mustered out at Quonset Point, Oct. 26, 1898.

Rhode Island Light Battery (B).—Official title, Light Battery B, First Regiment, Artillery, Rhode Island Volunteers. Headquarters, Providence. Organized June 18, 1887. Mustered in for war with Spain, June 28, 1898. Strength for war with Spain, 110. Commanded by Capt. Henry Wolcott during war operations. Stationed during war, Camp Dyer, Quonset Point, R. I. The battery was mustered out at Quonset Point, Oct. 26, 1898.

First South Carolina Infantry.—Official title, First South Carolina Volunteer Infantry. Headquarters, Camp Ellerbe. Organized May 3, 1898.

Mustered in for war with Spain, June 2, 1898. Strength for war with Spain, 1,201. Commanded by (1) Col. Joseph K. Alston; (2) Col. James H. Tillman, during war operations. Stationed during war: (1) Camp Ellerbe; (2) Camp Thomas; (3) Camp Cuba Libre. The regiment was mustered out at Columbia, Nov. 10, 1898. Col. Alston died Oct. 21, 1898.

Second South Carolina Infantry.—Official title, Second South Carolina Volunteer Infantry. Headquarters, Camp Lee. Organized June 27, 1898. Mustered in for war with Spain, Aug. 30, 1898. Strength for war with Spain, 960. Commanded by Col. Willie Jones during war operations. Stationed during war: (1) Camp Lee; (2) Camp Cuba Libre; (3) Camp Columbia. Sent from United States for service in Cuba. The regiment, at time of going to press, was stationed in Cuba.

South Carolina Artillery (Heavy Battery).—Official title, Heavy Battery, South Carolina Volunteer Artillery. Headquarters, Sullivan's Island. Organized May 3, 1898. Mustered in for war with Spain, May 21, 1898. Strength for war with Spain, 166. Commanded by Capt. Edward Anderson during war operations. Stationed during war: (1) Camp Fuller; (2) Sullivan's Island. The battery was mustered out at Sullivan's Island, Feb. 4, 1899.

First South Dakota Infantry.—Official title, First Infantry Regiment, South Dakota Volunteers. Organized May 4, 1898. Mustered in for war with Spain, May 19, 1898. Strength in officers and men for war with Spain, 1,030. Commanded by Col. A. S. Frost during war operations. Stationed during war: (1) Camp Dewey; (2) San Francisco; (3) Manila. Sent from United States for service in the Philippines. Participated in engagements with the insurgents at and about Manila. Casualties up to April 4, 1899: 4 officers and 13 men killed and 1 officer and 54 men wounded. The regiment, at time of going to press, is still in the service and stationed at Manila.

First Tennessee Infantry.—Official title, First Tennessee Infantry Volunteers. Headquarters, Nashville. Organized August, 1887. Mustered in for war with Spain, May 19, 1898. Strength for war with Spain, 1,320. Commanded by Col. William C. Smith during war operations. Stationed during war: (1) Camp Merriam, Presidio, Cal.; (2) Manila. Sent from United States for service in the Philippines. Participated in fighting at Manila in February. Were in the charge and helped to capture the waterworks. Casualties during campaign: Col. Smith dropped dead of apoplexy while at the head of command on the firing line at Manila. No record of other casualties available. The regiment, at time of going to press, is still in the service and stationed at Manila.

Second Tennessee Infantry.—Official title, Second Tennessee Infantry Volunteers. Headquarters, Memphis. Organized April 18, 1898. Mustered in for war with Spain, May, 1898. Strength for war with Spain, 1,300. Commanded by Col. Kellar Anderson during war operations. Stationed during war: (1) Camp Meade, Pennsylvania; (2) Camp Alger, Virginia; (3) Camp Farnace, Georgia. The regiment was mustered out at Columbia, S. C., Feb. 8, 1899.

Third Tennessee Infantry.—Official title, Third Tennessee Infantry Volunteers. Headquarters, Chattanooga. Organized April, 1898. Mustered in for war with Spain, May, 1898. Strength for war with Spain, 1,320. Commanded by Col. J. P. Fyffe during war operations. Stationed during war: (1) Chickamauga, Ga.; (2) Anniston, Ala. The regiment was mustered out Jan. 31, 1899.

Fourth Tennessee Infantry.—Official title, Fourth Tennessee Infantry Volunteers. Organized July

1898. Mustered in for war with Spain, July, 1898. Strength for war with Spain, 1,306. Commanded by Col. George Le Roy Brown during war operations. Stationed during war: (1) Camp Poland, Knoxville; (2) Cuba. Sent from United States for service in Cuba. The regiment, at time of going to press, is still in the service, and stationed in Cuba.

First Texas Infantry.—Official title, First Regiment, Texas Volunteer Infantry. The regiment is composed of separate companies from various parts of the State. Organized April 28, 1898. Mustered in for war with Spain, May 15, 1898. Strength in officers and men for war with Spain, 1,282. Commanded by (1) Col. W. H. Mabry; (2) Col. Charles G. Dwyer, during war operations. Stationed during war: (1) Mobile, Ala.; (2) Miami, Fla.; (3) Jacksonville, Fla.; (4) Savannah, Ga.; (5) Cuba. Sent from United States for service in Cuba. The regiment, at time of going to press, is still in the service and stationed in Cuba. Col. Mabry died Jan. 4, 1899.

Second Texas Infantry.—Official title, Second Regiment, Texas Volunteer Infantry. The regiment was composed of 12 separate companies from various parts of the State. Organized April 28, 1898. Mustered in for war with Spain, May 15, 1898. Strength in officers and men for war with Spain, 1,282. Commanded by Col. L. M. Oppeheimer during war operations. Stationed during war: (1) Mobile, Ala.; (2) Miami, Fla.; (3) Jacksonville, Fla.; (4) Savannah, Ga. The regiment was mustered out at Dallas, Nov. 9, 1898.

Third Texas Infantry.—Official title, Third Regiment, Texas Volunteer Infantry. The regiment was composed of 12 separate companies from various parts of the State. Organized April 28, 1898. Mustered in for war with Spain, May 15, 1898. Strength in officers and men for war with Spain, 1,282. Commanded by Col. R. P. Smyth during war operations. Stationed during war: headquarters, Fort Clark, Texas; companies at military posts in Texas. The regiment was mustered out at Fort Clark, Feb. 25, 1899.

Fourth Texas Infantry.—Official title, Fourth Regiment, Texas Volunteer Infantry. Only one company (the Tom Hamilton Guards, of Huntsville) belonged to the Texas Volunteer Guard. The other companies were selected from different points in the State. Mustered in for war with Spain at Houston, July 30, 1898. Strength in officers and men for war with Spain, 1,282. Commanded by Col. John C. Edmonds during war operations. Stationed during war at Houston and San Antonio, Texas. The regiment was mustered out at San Antonio, March, 1899.

First Texas Cavalry.—Official title, First Regiment, Texas Volunteer Cavalry. The regiment was composed of 12 separate troops from various parts of the State. Organized April 28, 1898. Mustered in for war with Spain, May 15, 1898. Strength in officers and men for war with Spain, 1,282. Commanded by (1) Col. J. R. Waties; (2) Col. Luther R. Hare, during war operations. Stationed during war at Fort Sam Houston, San Antonio, Texas. The regiment was mustered out Nov. 15, 1898.

Utah Light Artillery (Battery A).—Official title, Light Battery A, Utah United States Volunteers. Headquarters, Camp Kent, Fort Douglas. Organized and mustered in for war with Spain, May 5, 1898. Total strength for war with Spain: 4 officers, 173 enlisted men. Commanded by (1) Capt. R. W. Young; (2) Capt. E. A. Wedgwood, during war operations. Stationed during war at Camp Dewey, Manila. Sent from United States for service in the Philippines. Participated in all engagements leading up to the capture of Manila. Subsequently

engaged in operations against insurgents. Casualties so far known: 3 enlisted men killed. The battery, at time of going to press, is still in the service, and at the front, near the Manila waterworks. Capt. Young now commands the Utah Battalion (Batteries A and B), with the rank of major.

Utah Light Artillery (Battery B).—Official title, Light Battery B, Utah United States Volunteers. Headquarters, date of organization, and mustering, also strength for war with Spain, same as Battery A. Commanded by Capt. F. A. Grant. Stations and service same as Battery A. Casualties of Utah Light Artillery up to April 4, 1899: 3 men killed, 2 officers and 8 men wounded.

Utah Light Artillery (Battery C).—Official title, Light Battery C, Utah United States Volunteers. Headquarters, Fort Douglas. Organized and mustered in for war with Spain, July 14, 1898. Strength for war with Spain, 109. Commanded by Capt. F. W. Jennings. Stationed during war at Camp Merritt, Presidio, Cal. The battery was mustered out at San Francisco, Dec. 21, 1898.

Utah Cavalry (First Troop).—Official title, First Troop, Utah United States Volunteer Cavalry. Headquarters, Fort Douglas. Organized and mustered in for war with Spain, May 5, 1898. Strength for war with Spain, 84. Commanded by Capt. Joseph E. Caine during war operations. Stationed during war at Camp Merritt. About one third of the command was stationed at Sequoia, National Park, Cal. The troop was mustered out Dec. 23, 1898.

First Vermont Infantry.—Official title, First Regiment, Infantry, Vermont Volunteers. Headquarters, Camp Olympia, Colchester, Vt. Organized April 18, 1873. Mustered in for war with Spain, May 16, 1898. Strength for war with Spain, 1,088. Commanded by (1) Col. Osman D. Clark (afterward brigade commander); (2) Lieut.-Col. John H. Mimms. Stationed during war at Camp Thomas, Chickamauga, Ga. Casualties during campaign: death of 1 officer and 27 men. The regiment was mustered out at Camp Olympia, Sept. 20, 1898.

Second Virginia Infantry.—Official title, Second Regiment, Virginia Volunteer Infantry. Headquarters, Woodstock. Organized April 20, 1889. Mustered in for war with Spain, May 21, 1898. Strength in officers and men for war with Spain, 1,021. Commanded by Col. James C. Baker during war operations. Stationed during war: (1) Camp Lee, Richmond, Va.; (2) Camp Cuba Libre, Jacksonville, Fla. The regiment was mustered out at Richmond, Va., Dec. 11, 1898.

Third Virginia Infantry.—Official title, Third Regiment, Virginia Volunteer Infantry. Headquarters, Culpeper. Organized June 13, 1881. Mustered in for war with Spain, May 26, 1898. Strength in officers and men for war with Spain, 999. Commanded by Col. William Nalle during war operations. Stationed during war: (1) Camp Lee, Richmond, Va.; (2) Camp Alger, Dunn Loring, Va. The regiment was mustered out at Richmond, Va., Nov. 6, 1898.

Fourth Virginia Infantry.—Official title, Fourth Regiment, Virginia Volunteer Infantry. Headquarters, Norfolk. Organized Aug. 29, 1882. Mustered in for war with Spain, May 20, 1898. Strength in officers and men for war with Spain, 997. Commanded by Col. George W. Taylor during war operations. Stationed during war: (1) Camp Lee, Richmond, Va.; (2) Camp Cuba Libre, Florida; (3) Camp Onward, Georgia; (4) Cuba. Sent from United States for service in Cuba. The regiment, at time of going to press, is still in the service, and stationed in Cuba.

Sixth Virginia (Colored) Infantry.—Official title, Sixth Regiment, Virginia Volunteer Infantry. Or-

ganized May 26, 1898. Mustered in for war with Spain, July 30, 1898. Strength in officers and men for war with Spain, 853. Commanded by Lieut.-Col. Richard C. Croxton (first lieutenant, First United States Infantry) during war operations. Stationed during war: (1) Camp Corbin, Virginia; (2) Camp Poland, Tennessee; (3) Camp Haskell, Georgia. The regiment was mustered out at Macon, Jan. 26, 1899.

First Washington Infantry.—Official title, First Washington Volunteers. Headquarters, Camp John R. Rogers, Tacoma. Organized May 1, 1898. Strength in officers and men for war with Spain, 1,326. Commanded by Col. John H. Wholley (first lieutenant, Twenty-fourth United States Infantry). Stationed during war: (1) Vancouver Barracks, Washington; (2) Presidio, San Francisco, Cal.; (3) Angel Island, San Francisco Bay. Sent from United States for service in the Philippines. Participated in engagements in and around Manila. Casualties up to April 4, 1899: 29 killed, and 4 officers and 136 men wounded. This organization lost more men in killed and wounded in the first conflicts near Manila than any other. The regiment, at time of going to press, is still in the service, and stationed near Manila.

Washington Infantry Battalion.—Official title, Independent Battalion, Washington Volunteer Infantry. Headquarters, Tacoma. Organized June 21, 1898. Mustered in for war with Spain, July 2, 1898. Strength for war with Spain: 14 officers, 412 enlisted men. Commanded by Major E. H. Fox during war operations. Stationed during war at Vancouver Barracks. The battalion was mustered out at Vancouver Barracks, Oct. 28, 1898.

First West Virginia Infantry.—Official title, First West Virginia Volunteer Infantry. The regiment was composed of 6 companies of the First and 6 companies of the Second Infantry, West Virginia National Guard, with headquarters at Fairmont and Huntington, respectively. Organized May 2, 1898. Mustered in for war with Spain, May 7 to 14, 1898. Strength for war with Spain: 51 officers, 1,307 enlisted men. Commanded by Col. B. D. Spilman during war operations. Stationed during war: (1) Camp Lee, Charleston; (2) Camp George H. Thomas, Chickamauga, Ga.; (3) Camp Poland, Tennessee; (4) Camp Conrad, Georgia. Casualties during campaign: death of 15 men. The regiment was mustered out at Camp Conrad, Columbus, Ga., Feb. 4, 1899.

Second West Virginia Infantry.—Official title, Second West Virginia Volunteer Infantry. Not a National Guard organization. Mustered in for war with Spain, June 25 to July 9, 1898. Strength for war with Spain, 1,321. Commanded by Col. D. T. E. Casteel during war operations. Stationed during war: (1) Camp Atkinson, Charleston; (2) Camp Meade, Pennsylvania; (3) Camp Wetherill, South Carolina. Casualties during war: death of 18 enlisted men. The regiment, at time of going to press, is still in the service, and stationed at Camp Wetherill. One battalion of the Second West Virginia Infantry attended the Peace Jubilee in Philadelphia and made a creditable record on that occasion.

First Wisconsin Infantry.—Official title, First Regiment, Infantry, Wisconsin Volunteers. Headquarters, Monroe. Organized as National Guard, April 26, 1882; as Volunteers, April 28, 1898. Mustered in for war with Spain, May 14, 1898. Strength for war with Spain, 1,357. Commanded by Col. Samuel P. Schadel during war operations. Stationed during war: (1) Camp Harvey, Wisconsin; (2) Camp Cuba Libre, Florida. Casualties during campaign: death of 45 men. The regiment was mustered out at home stations, Oct. 19, 1898.

Second Wisconsin Infantry.—Official title, Second Regiment Infantry, Wisconsin Volunteers. Headquarters, Sheboygan. Organized as National Guard, April 26, 1882; as Volunteers, April 28, 1898. Mustered in for war with Spain, May 12, 1898. Strength for war with Spain, 1,349. Commanded by Col. Charles A. Born during war operations. Stationed during war: (1) Camp Harvey, Wisconsin; (2) Camp Thomas, Chickamauga, Ga.; (3) Puerto Rico. Sent from United States for service in Puerto Rico. Participated in engagements near Arbonito pass. Casualties during campaign: death of 38 enlisted men. The regiment was mustered out by companies at home stations Nov. 21, 1898.

Third Wisconsin Infantry.—Official title, Third Regiment, Infantry, Wisconsin Volunteers. Headquarters, La Crosse. Organized as National Guard, April 30, 1883; as Volunteers, April 28, 1898. Mustered in for war with Spain, May 11, 1898. Strength for war with Spain, 1,353. Commanded by Col. Martin T. Moore during war operations. Stationed during war: (1) Camp Harvey, Wisconsin; (2) Camp Thomas, Chickamauga, Ga.; (3) Puerto Rico. Sent from the United States for service in Puerto Rico. Participated in engagements near Arbonito pass. Casualties during campaign: 2 killed and died of wounds. The regiment was mustered out by companies at home stations from Jan. 8 to Jan. 15, 1899.

Fourth Wisconsin Infantry.—Official title, Fourth Regiment, Infantry, Wisconsin Volunteers. Headquarters, Milwaukee. Organized as National Guard, April 25, 1884; as Volunteers, June 27, 1898. Mustered in for war with Spain, July 11, 1898. Strength for war with Spain, 1,301. Commanded by Col. Horace M. Seaman during war operations. Stationed during war: (1) Camp Douglas, Wisconsin; (2) Camp Shipp, Anniston, Ala. Casualties during campaign: 1 officer and 16 men. The regiment was mustered out at Anniston, Ala., Feb. 28, 1899.

Wisconsin Light Battery.—Official title, Battery A, Light Artillery, Wisconsin Volunteers. Headquarters, Milwaukee. Organized as National Guard, May 11, 1885; as Volunteers, July 7, 1898. Mustered in for war with Spain, July 9, 1898. Strength for war with Spain, 109. Commanded by Capt. Benjamin H. Dally during war operations. Stationed during war at Camp Douglas, Wis. The battery was mustered out at Camp Douglas, Oct. 8, 1898.

First Wyoming Infantry.—Official title, First Battalion, Wyoming Volunteers (before enlistment First Regiment, Wyoming National Guard). Headquarters, Evanston. Organized Feb. 26, 1891. Mustered in for war with Spain, May 10, 1898. Strength for war with Spain: 14 officers, 324 enlisted men. Commanded by Major Frank M. Foote during war operations. Stationed during war: (1) Camp Merritt, California; (2) Manila. Sent from United States for service in the Philippines. Participated in engagements at Manila, including waterworks. Casualties up to April 4, 1899: 2 killed and 5 wounded. The battalion, at time of going to press, is still in service at Manila.

Wyoming Light Battery.—Official title, Alger Light Battery (Battery A), Wyoming Volunteers. Headquarters, Cheyenne. Organized Feb. 19, 1896. Mustered in for war with Spain, June 16, 1898. Strength for war with Spain: 3 officers, 122 enlisted men. Commanded by First-Lieut. H. A. Clarke during war operations. Stationed during war: (1) Camp Merritt; (2) Manila. Sent from United States for service in the Philippines. The battery, at time of going to press, is still in service at Manila.

United States Volunteer Organizations.—In addition to the volunteer organizations fur-

nished by the States and given in detail above, a number of regiments and companies were mustered in under the general title of United States Volunteers, by authority of acts of Congress dated April 22 and May 11, 1898. These acts, specially drawn for war purposes, gave to the President authority to bring about the enrollment (1) of 3,000 men from the nation at large possessing special qualifications; (2) of 3,500 men qualified for engineering work; and (3) 10,000 men possessing immunity from disease incident to tropical climates. The muster in of 8 regiments of cavalry ("Rough Riders") was completed by May 30; that of the 10 regiments of infantry (immune) by July 30; that of the 3 regiments of engineers by Aug. 20, the last volunteer organization being mustered in Aug. 24, 1898. According to the official roster, these organizations included 3 regiments of engineers, 3 regiments of cavalry, 11 regiments of infantry, and 12 companies forming a signal corps. Official data concerning these organizations is not yet sufficiently complete to admit of a detailed statement concerning the record of each during war operations. In addition to the engineers, cavalry, infantry, and the signal corps, a battery of artillery was organized through the instrumentality of a private citizen of New York (John Jacob Astor).

Engineers.—The United States Volunteer Engineers, according to the official data available, did excellent service during the campaign. In the official roster showing the principal camps and stations the following statement is given: First Regiment, mustered out at New York city, Jan. 25, 1898; Second Regiment, 8 companies at Havana and 4 companies at Honolulu; Third Regiment, 4 companies at Cienfuegos with headquarters, 4 companies at Matanzas, and 4 companies at Havana.

Cavalry.—The following statement is made concerning the United States Volunteer Cavalry: First Regiment, mustered out at Montauk, N. Y., Sept. 15, 1898; Second Regiment, mustered out at Jacksonville, Fla., Oct. 24, 1898; Third Regiment, mustered out at Chickamauga, Ga., Sept. 8, 1898. The official record of the First United States Volunteer Cavalry shows that Troops A, B, D, E, F, G, K, L, consisting of 31 officers and 567 men, took part in the engagement at La Quasima, Cuba, on June 24, 1898. The casualties recorded for the regiment at that fight were: 1 officer and 15 men killed, 6 officers and 44 men wounded. In subsequent operations against Santiago (San Juan, July 1-3) the 8 troops before mentioned have the following casualty record: 1 officer and 14 men killed, 5 officers and 69 men wounded. This regiment was commanded by (1) Col. Leonard Wood; (2) Lieut.-Col. Theodore Roosevelt.

Astor Battery.—Equipped and organized at New York city at the expense of John Jacob Astor, May, 1898. Mustered in for war with Spain, June, 1898. Strength: 3 officers, 101 men. Commanded by Lieut. March during war operations. Stationed during war: (1) Pelham Bay Park, N. Y.; (2) Presidio, Cal.; (3) Manila. This battery took part in the action of Aug. 13, 1898, at Manila. Casualties during campaign: 3 men killed. The battery was mustered out in New York city, Feb. 2, 1899. During the fighting at Manila on Aug. 13 the Astor Battery was on the right of the line. It shelled the blockhouse with its Hotchkiss mountain guns, the men, under Capt. March, subsequently charging the position with revolvers.

Infantry.—The following statement is made concerning the United States Volunteer Infantry: First Regiment, mustered out at Galveston, Texas, Oct. 28, 1898; Second Regiment, stationed at Santiago; Third Regiment, stationed at Macon, Ga.; Fourth Regiment, stationed at Manzanillo; Fifth

Regiment, stationed at Santiago; Sixth Regiment, stationed at Savannah, Ga.; Seventh Regiment (colored), mustered out at Macon, Ga., Feb. 28, 1899; Eighth Regiment (colored), stationed at Chickamauga, Ga.; Ninth Regiment (colored), stationed at Santiago; Tenth Regiment (colored), stationed at Macon, Ga.; Territorial Regiment, mustered out at Albany, Ga., Feb. 15, 1899. The roster on which these regiments are named is dated March 9, 1899, and shows that the Third, Sixth, Eighth, and Tenth Regiments were at that time under orders to be mustered out.

Signal Corps.—The roster above referred to shows that on the date given the Second, Third, Sixth, Eleventh, Twelfth, Thirteenth, Fifteenth, Sixteenth, and Seventeenth Companies were stationed in Cuba. The Fourth Company was stationed at Puerto Rico, and the First and Eighteenth Companies at Manila. These companies included experts from State organizations.

The North Atlantic Fleet.—The following statement shows the dates on which the vessels named joined the North Atlantic fleet, the length of their service, and such other details as have been made available concerning the nature of their service during the war. It is not possible to say what vessels were under the direct command of the several squadron commanders, as the disposition of the vessels depended upon their location. Vessels within signal distance of Key West were under the command of the commandant of the naval base at that place; those on the western coast of Cuba were under the orders of the commanding officer of the blockading division or of the commander of the first North Atlantic squadron; others on the east coast of Cuba, by reason of their presence there, received their orders from Commodore Schley or Admiral Sampson.

Northern Patrol Squadron.—On April 20, 1898, Commodore John A. Howell assumed command of the Northern patrol squadron. This squadron, consisting at first of the "San Francisco" (flagship), "Prairie," "Dixie," "Yankee," and "Yosemite," was organized for the protection of the coast and coastwise trade between the Capes of the Delaware and Bar Harbor, Me.

On May 20 the "Yankee" was detached from the squadron, and the services of the "Yosemite" and "Dixie" being required in Southern waters, the former was detached on May 30, and the latter on June 18. During May the squadron was strengthened by the addition of the "Columbia," "Badger," and "Southery." On June 9 the "Minneapolis" was ordered to duty in the squadron, and was stationed at Newport News, Va., to guard the new battle ships being constructed there.

The Navy Department, considering it advisable to increase the efficiency of the blockade of Cuba, Commodore Howell, on June 25, was ordered to assemble the vessels of his command, with the exception of the "Minneapolis," at Key West. Upon his arrival there, June 1, with the "San Francisco," "Columbia," "Prairie," "Badger," and "Southery," he was assigned by Rear-Admiral Sampson to the command of the first division of the North Atlantic fleet.

Flying Squadron.—The flying squadron was under the command of Commodore W. S. Schley, U. S. N., who, from the beginning of the war to May 24, 1898, acted independently, and from May 24 until June 21, 1898, when the flying squadron ceased to exist, under the directions of Admiral Sampson.

Eastern Squadron (Commodore J. C. Watson, commanding).—During June and July the department issued orders for the formation of the Eastern squadron, to which the following vessels were as-

signed: "Oregon," on July 7, 1898; "Newark," on July 7, 1898 (detached Aug. 3); "Yankee," on July 7, 1898; "Yosemite," on July 7, 1898; "Dixie," on July 7, 1898; "Massachusetts," on July 9, 1898; "Badger," on July 12, 1898; "New Orleans," on July 17, 1898. The colliers "Abarenda," "Alexander," "Cassius," "Casar," "Scindia," and "Justin" and the supply ship "Glacier" were attached to this squadron on Aug. 3, with orders to hold themselves in readiness at Hampton Roads to join the squadron. At the time of formation of the Eastern squadron the Navy Department especially directed that the vessels assigned to it were to remain under the orders of the commander in chief of the North Atlantic station until the departure of the Eastern squadron for Europe, but as this squadron was never sent abroad the vessels composing it always remained under the orders of Admiral Sampson.

Abarenda.—Steamer converted into a collier. Commissioned in United States navy May 20, 1898. Lieut.-Commander W. H. Buford. Took part in the attack on Guantanamo, June 12, 1898. Assigned to Eastern squadron, under Commodore Watson.

Alexander.—Steamer converted into a collier. Commissioned in United States navy June 1, 1898. Commander W. T. Burwell. Assigned to Eastern squadron, under Commodore Watson. Served chiefly at Santiago and Guantanamo.

Amphitrite.—Double-turreted monitor. Twenty-six officers, 156 men. Launched June 7, 1883. First commission, April 23, 1895. Capt. C. J. Barclay. Ordered to Key West early in March, 1898. Off Matanzas early in April. Ordered to San Juan, Puerto Rico, May 4. Supported naval force in holding lighthouse at Cape San Juan, Aug. 9.

Annapolis.—Gunboat. 11 officers, 124 men. Cost, \$227,700. Launched Dec. 23, 1896. First commission, July 20, 1897. Commander J. J. Hunker. With expedition of Gen. Miles to Puerto Rico. Proceeded on July 27, 1898, with "Dixie," "Wasp," and "Gloucester," from Guanica to blockade Ponce and to capture lighters for the use of the army.

Apache.—Converted tug. 4 officers, 44 men. First commission in United States navy, June 11, 1898. Lieut. G. C. Hanus. Served chiefly in Hampton Roads and at Key West.

Armeria.—Lighthouse tender. Commander L. C. Logan. Served chiefly at Key West, Santiago, Guantanamo.

Accomac.—Converted tug. 1 officer, 11 men. First commission, April 2, 1898. Ensign W. S. Crosby commanded to May 6, 1898; Boatswain J. W. Angus held command from May 6 to close of war.

Badger.—Auxiliary cruiser. 19 officers, 216 men. First commission in United States navy, April 22, 1898. Commander A. S. Snow. Officers and crew made up almost entirely from the Battalion of the East, New Jersey Naval Reserves. Served on the northern patrol, having a patrol line of 120 miles, from Quoddy Head to the westward. Assisted in the destruction of the "Alfonso XII" on July 6. Carried supplies and mail to Guantanamo Bay, in August, for fleet and army. Brought home three companies of the Thirty-fourth Michigan Volunteers from Cuba. When on blockade duty at Nuevitas on July 26, captured a Spanish tug, barge, and brigantine. These vessels were subsequently released.

Bancroft.—Gunboat. 10 officers, 113 men. Cost, \$250,000. Launched April 30, 1892. First commission, March 3, 1893. Commander Richardson Clover. The Bancroft served before Havana, Santiago, Guantanamo, and about the Isle of Pines, where she was engaged in several sharp fights. The only persons killed the first day that Gen. Shafter's army

landed at Daiquiri were Major Luis Belini, commandant at Siboney, and two Spanish soldiers, by a shell from the "Bancroft." The last man killed in the navy during the war, Emanouil Koulouris, was from the "Bancroft," in a sharp boat attack at Bailen in the Bay of Cortes. Now out of commission.

Brooklyn.—Armored cruiser. 46 officers, 470 men. Cost, \$2,988,000. Launched Oct. 2, 1895. First commission, Dec. 1, 1896. Capt. F. A. Cook in flying squadron from beginning of war to May 24, 1898. Sailed in search of Cervera's squadron on May 13. Assisted in destruction of same on July 3, chasing the "Cristobal Colon," which surrendered to her commander. During this engagement Chief Yeoman G. H. Ellis was killed and one man wounded. The "Brooklyn" also took part in the bombardment of Santiago, Cuba, on Sunday, July 10, 1898. Now serving in the North Atlantic fleet.

Capt. Cook, in his official report of the "Brooklyn's" action during the pursuit and destruction of Cervera's ships said, after noting the time and method of exit of the Spanish ships from Santiago harbor: "We opened fire on the leading ship in five minutes from the discovery. The port battery was first engaged as we stood with port helm to head off the leading ship, and giving them a raking fire at about 1,500 yards range. The enemy turned to the westward to close into the land. We then wore around to starboard, bringing the starboard battery into action. The enemy hugged the shore to the westward.

"The 'Brooklyn' leading, was followed by the 'Texas,' 'Iowa,' 'Oregon,' 'Indiana,' and 'Gloucester.' The 'Vixen,' which had been to the westward of us on the blockade, ran to the southward and eastward of us, and kept for some time off our port side distant about 1,000 yards, evidently intending to guard against torpedo attack upon this ship. The shell passing over us fell very thick about her, some passing over her. At this time the firing was very fast and the whistling of shell incessant. . . . The 'Maria Teresa,' which had dropped astern while we were wearing, under the heavy fire of our fleet ran ashore, the 'Vizcaya,' 'Oquendo,' and 'Colon' continuing on and gaining in distance.

"The 'Brooklyn' was engaged with the three leading ships of the enemy, which were forging ahead, the 'Texas,' 'Iowa,' and 'Indiana' keeping up a heavy fire, but steadily dropping astern. The 'Oregon' was keeping up a steady fire and was coming up in the most glorious and gallant style, outstripping all others. . . . We were making 14 knots at the time, and the 'Oregon' came up off our starboard quarter at about 600 yards and maintained her position, though we soon after increased our speed to 15 knots, and just before the 'Colon' surrendered were making nearly 16.

"The 'Oquendo' . . . dropped astern, and, on fire, ran ashore. The 'Vizcaya' and 'Colon' continued on, under fire from the 'Brooklyn' and 'Oregon.' The other vessels of our fleet were well astern and out of range. The 'Texas' was evidently coming up fast. At about 10.53 A. M. the 'Vizcaya' was seen to be on fire, and the 'Colon' passed inside of her with increased speed, took the lead, and gradually forged ahead. The 'Vizcaya' soon after ran on the beach, ablaze with fire. We signaled the 'Oregon' to cease firing on the 'Vizcaya,' as her flag was down. Firing immediately ceased, and we both continued the chase of the 'Colon,' now about 12,000 yards away. The ranges ran from 1,500 to 3,000 yards with the 'Vizcaya' as she kept in and out from the coast.

"We steered straight for a distant point near Cape Cruz, while the 'Colon' kept close to the

land, running into all the bights. She could not have come out without crossing our bows, and we were steadily gaining on her. . . . After running for about 50 miles west from the entrance, the 'Colon' ran into a bight of land, beached, fired a gun to leeward, and hauled down her flag. The 'Oregon' and 'Brooklyn' had just previously begun to fire upon the 'Colon' and were landing shell close to her."

Cæsar.—Steamer converted into collier. Commissioned in United States navy, May 13, 1898.

Calumet.—Revenue cutter. First-Lieut. W. H. Cushing, R. C. S. Served between Key West, Port Tampa, and Havana.

Castine.—Gunboat. 11 officers, 140 men. Cost, \$318,500. Launched May 11, 1892. First commission, Oct. 22, 1894. Commander S. W. Berry. Served chiefly at Key West and in Cuban waters.

Celtic.—Special class. Supply ship. Commissioned in United States navy May 27, 1898. Lieut. Commander N. J. K. Patch. Served chiefly between Santiago and Guantanamo.

Cincinnati.—Protected cruiser. 20 officers, 294 men. Cost, \$1,100,000. Launched Nov. 10, 1892. First commission, June 16, 1894. Capt. C. M. Chester. Took part in the Havana blockade, afterward aiding the blockade of Matanzas; then participated in bombardment. Scouted in the Yucatan channel for Cervera's fleet. Sent on duty with Puerto Rican expedition. Took part in San Juan blockade. Aided the Cincinnati in defending the lighthouse at San Juan.

Columbia.—Protected cruiser. 30 officers, 447 men. Cost, \$2,725,000. Launched July 26, 1892. First commission, April 23, 1894. In flying squadron. Commanded by (1) Capt. J. H. Sands; (2) Capt. T. F. Jewell. On North Atlantic station from July 1, 1898, to close of war. The "Columbia" accompanied Gen. Miles from United States to Santiago, starting July 9, 1898; having on board the First Battalion of the Sixth Illinois Infantry. Afterward proceeded with Puerto Rican expedition from Guantanamo Bay.

Cushing.—Torpedo boat. 8 officers, 20 men. Cost, \$82,750. Launched Jan. 23, 1890. First commission, April 22, 1890. Lieut. Albert Gleaves. Served on dispatch duty at beginning of war. Took part in the capture of two Spanish schooners off Havana on April 23, 1898. With the "McKee," while under fire from three Spanish gunboats, captured and destroyed 5 sloops in the harbor of Sagua la Grande, which was mined, on Aug. 7, 1898. Three days later, at Cardenas, in company with the "Gwin," entered the bay through a mined channel and destroyed a schooner. Now out of commission.

Detroit.—Unprotected cruiser. 20 officers, 236 men. Cost, \$612,500. Launched Oct. 28, 1891. First commission, July 20, 1893. Commander J. H. Dayton. On the morning of April 24 captured the steamer "Catalina." On Havana blockade until May 4. Was with Admiral Sampson's squadron in first trip to Puerto Rico in search of Cervera. Headed the column in engagement with fortifications at San Juan, Puerto Rico, on May 12. After return, in the patrolling squadron on north coast of Cuba until whereabouts of Cervera was discovered with certainty. Scout duty in Santander passage and St. Nicholas channel. One of the convoy for Gen. Shafter's expedition. Assisted with boats in the landing at Daiquiri and in shelling the beach preparatory to landing. For the remainder of the war, blockade duty off Cienfuegos and the Isle of Pines.

Dixie.—Auxiliary cruiser. 14 officers, 167 men. First commission in United States navy, April 19, 1898. Commander C. H. Davis. North-

ern patrol squadron, May 6 to June 18, 1898. When the Eastern squadron was formed under Commodore Watson for service along the Spanish coast the "Dixie" was included among the vessels for that service. In July, accompanied the expedition to Puerto Rico from Guantanamo Bay. Assigned, on July 27, 1898, to blockade Ponce and capture lighters for the use of the army, joining with the "Annapolis," "Wasp," and "Gloucester" for that purpose.

Dolphin.—Dispatch boat. 7 officers, 110 men. Cost, \$315,000. Launched April 12, 1884. First commission, Dec. 8, 1885. Commander H. W. Lyon. From April 24 to May 6, on the blockade off Bahia Honda, north coast of Cuba. Overhauled a large number of vessels and captured the Spanish schooner "Lola." On the blockade, north coast of Cuba, and on blockade of Havana. On May 29 convoyed cable steamer "Adria" to Santiago, for use in cutting cables. Remained on the Santiago blockade, assisting in bombardment until June 12. Re-enforced the "Marblehead," at Guantanamo, in support of marine battalion who were attacked by superior force. On June 13 the "Dolphin" shelled the water-supply station from the seacoast. On June 14 supported advance of marines, shelling blockhouse, supplying ammunition and water to United States force, and caring for wounded. At various times conveying Cuban officers and others to and from engaged points of the Cuban coast.

Dorothea.—Converted yacht. 6 officers, 63 men. First commission in United States navy, June 1, 1898. Lieut.-Commander W. J. Barnette commanding until Aug. 9, 1898; Lieut.-Commander N. T. Houston from that date to close of war. Chiefly at Key West.

Du Pont.—A torpedo boat. Cost, \$144,000. Launched March 30, 1897. First commission, Sept. 23, 1897. Lieut. S. S. Wood. Accompanied blockading fleet to Cuba on April 22, 1898. Aided in blockade of Matanzas. Attacked two blockhouses at that place after being fired upon, and did effective service. Carried dispatches from Admiral Sampson to Commodore Schley (Key West to Cienfuegos), a run of 625 miles, in a heavy sea. Performed effective dispatch service. Accompanied Gen. Shafter's expedition to Santiago. Performed patrol duty off the entrance to Santiago harbor. Carried Admiral Sampson's dispatch announcing the Santiago victory to Siboney.

Eagle.—Converted yacht. 4 officers, 60 men. First commission in United States navy, March 26, 1898. Lieut. W. H. H. Southerland. On April 29 the "Eagle" was attacked in Cienfuegos harbor by three Spanish gunboats, and repulsed them within fifteen minutes, striking one of the enemy's vessels twice and disabling her. The "Eagle's" battery consisted of 4 6-pounder rapid-fire guns and 2 Colt automatic guns. Engaged on blockade duty, dispatch service, convoy service, and at the landing of troops for Santiago. On June 29 attacked a large force of Spanish cavalry near the mouth of the Rio Hondo, inflicting much loss on the enemy and driving them away. Afterward engaged on blockade duty at the Isle of Pines. On July 12, when on this blockade duty, the "Eagle" chased, drove ashore, and seized as a prize the armed transatlantic liner "Santo Domingo," loaded with supplies and armed with 2 shielded 4.72-inch breech-loading rifle guns. During four months the "Eagle" boarded 32 vessels.

Ericsson.—Torpedo boat. 3 officers, 20 men. Cost, \$113,500. Launched May 12, 1894. First commission, Feb. 18, 1897. Lieut. N. R. Usher. Served chiefly on blockade duty off Havana. Present during engagement with Cervera's vessels at Santiago, July 3, 1898, accompanying the "New York" until end of engagement. Then rendered

very efficient service in rescuing prisoners from the "Vizcaya."

Fern.—Wooden steam vessel. Built in 1871. 5 officers, 45 men. Lieut.-Commander W. S. Cowles commanding until April 27, 1898; Lieut.-Commander Herbert Winslow from that date to close of war. Served in Cuban waters and at Key West.

Fish Hawk.—Fish Commission vessel. Lieut.-Commander F. H. Delano. Served chiefly at Key West and Havana. Now out of commission.

Footie.—Torpedo boat. 4 officers, 20 men. Cost, \$97,500. Launched Oct. 1, 1896. First commission, Aug. 7, 1897. Lieut. William L. Rodgers.

Frolic.—Converted yacht. 7 officers, 87 men. First commission in United States navy July 6, 1898. Commander E. H. Gheen. Served chiefly in Puerto Rican waters.

Glacier.—Special class. Refrigerator ship. Commissioned in United States navy July 5, 1898. Commander J. P. Merrell. Assigned to Eastern squadron. Employed chiefly as supply ship for United States vessels in eastern Cuban and Puerto Rican waters.

Gloucester.—Converted yacht. 9 officers, 85 men. First commission in United States navy, May 20, 1898. Lieut.-Commander Richard Wainwright. Joined blockading squadron off Santiago chiefly to carry dispatches. Bombarded fort at Aquadores repeatedly, and also took part in a number of the bombardments of Morro Castle. On July 3, when the Spanish fleet issued from the harbor, the "Gloucester" was lying at the extreme easterly point of the blockading line, about two miles to the south and east of Morro Castle. She fired upon all the Spanish ships in turn, but her efforts were soon confined to the two torpedo-boat destroyers "Furor" and "Pluton," which were the last to leave the harbor.

This battle, distinct from the general engagement, continued for more than an hour, when the "Pluton," the leading destroyer, ran ashore three miles west of Morro Castle and exploded, and the "Furor" sank in deep water. The few survivors, however, aboard the "Furor" were rescued before the boat sank, and also those from the "Pluton." The "Gloucester" rescued those aboard the burning, exploding cruisers "Maria Teresa" and "Oquendo." Nearly 500 men were taken ashore through the surf from these ships. Admiral Cervera and his staff were brought aboard the "Gloucester" with many other prisoners.

Joined Puerto Rican expedition. On reaching Guanica Commander Wainwright obtained permission to enter the harbor in advance. The entrance was made and the town taken after a sharp skirmish by the infantry company of the "Gloucester," under the command of Lieut. Huse, and held until other troops were landed. Was present at the surrender of Ponce. Proceeding then to Arroya, the infantry company was again landed, and held the place in the face of the enemy for two days, until United States troops arrived.

Gwin.—Torpedo boat. Cost, \$39,000. Launched Nov. 15, 1897. First commission, April 4, 1898. Lieut. C. S. Williams. Served chiefly in Southern and Cuban waters.

Hamilton.—Revenue cutter. Capt. W. D. Roath, R. C. S. Details of service not available.

Hannibal.—Steamer converted into collier. Commissioned in United States navy June 7, 1898. On North Atlantic squadron from July 1, 1898, to close of war. Commander H. G. O. Colby. Served chiefly in Puerto Rican waters.

Hawk.—Converted yacht. 4 officers, 46 men. First commission in United States navy, April 5, 1898. Lieut. J. Hood. Served chiefly between Key West and Havana and at Cuban ports. On night of July 4, 1898, chased and destroyed a large steamer

of about 6,000 tons when attempting to run the blockade off Mariel. Name of steamer not known.

Helena.—Light-draught gunboat. 10 officers, 165 men. Cost, \$280,000. Launched Jan. 30, 1896. First commission, July 8, 1897. Commander W. T. Swinburne. Captured Spanish steamer, April 23, 1898. On convoy duty in Gen. Shafter's army to Santiago. Bombarded Siboney prior to landing of army, June 22. Served on Cienfuegos-Batabano blockade from June 27 to end of war.

On July 2 engaged earth battery of 5 guns, 2 field guns, and entrenched infantry at Tunas. Enemy's fire silenced in twenty-eight minutes. Under cover of this demonstration the Cuban expedition moved to Palo Alto, 40 miles to eastward, and successfully landed men, arms, and supplies for Gen. Gomez. On July 18, with "Wilmington," "Scorpion," "Osceola," "Hornet," "Hist," and "Wompatuck," destroyed 3 transports and 5 small gunboats at Manzanillo. Bombarded Santa Cruz, raised and cut cables from Jucaro to Tunas and from Tunas to Trinidad. On July 26, with "Osceola," engaged batteries at Tunas to test enemy's strength.

Hist.—Converted yacht. 6 officers, 50 men. First commission in United States navy, May 13, 1898. Lieut. Lucien Young. On patrol duty until June 5 on Atlantic coast, then ordered to Cuba. On June 30, at Manzanillo, destroyed an armed pontoon containing soldiers, injured a torpedo boat and several other vessels of the enemy, silenced a shore battery and fort, and inflicted great loss of life. Also on the same day destroyed a gunboat in the harbor of Niguero and forced ashore a transport filled with soldiers. Took part in the chase and the destruction of Cervera's fleet at Santiago, running close under the shore batteries. Remained near the "Vizcaya" for several hours, taking from that vessel many prisoners, including wounded, in the midst of fire and explosions.

On July 11 aided in cutting the cable between Havana, Manzanillo, and Santiago. On July 18 piloted the squadron through the inland water to Manzanillo and took part in bombardment and destruction of 5 gunboats, a storeship, and 3 large transports. On July 20 took part in bombardment of Santa Cruz and in cutting cable loops. From Aug. 6 to 10 made reconnaissance of inland waters south of Cuba, running through mine fields in main channel and engaging shore batteries and troops. Did effective blockade duty in Cuban waters. Assisted in capture of several blockade runners and also captured a number of smaller vessels, afterward released. The "Hist" was schooner rigged, 174 feet long, with a breadth of 26 feet, and a tonnage of 312. She carried 1 3-pounder, 4 1-pounders, and 1 Colt.

Hornet.—Converted yacht. 4 officers, 51 men. First commission in United States navy, April 12, 1898. Lieut. J. M. Helm. Assisted in bombarding blockhouses and batteries off Matanzas, May 6, 1898. On the next day entirely destroyed these structures. Two days later shelled and broke up cavalry and infantry encampment and destroyed fort near Sabinilla Point. Proceeded with convoy of Gen. Shafter's expedition from Tampa to Santiago. On June 22 assisted in the bombardment of Siboney. On June 25 captured Spanish schooner loaded with provisions. On June 27 captured Spanish steamer coming out of Manzanillo. On June 30 captured schooner entering Manzanillo with supplies. On same date joined in reconnaissance toward Manzanillo and repelled attack by gunboat and troops, disabling the former and dispersing the latter. Bombarded forts and engaged batteries, artillery, and 9 armed batteries in the harbor (with "Hist" and "Wompatuck"). In this fight one Spanish gunboat and another armed vessel were sunk and others

more or less disabled. The "Hornet" was struck by many shells and the main steam pipe was shot away. The only casualties were 3 men scalded.

On July 11 assisted in cable cutting near Manzanillo. On July 15 captured Spanish schooner. On July 18 assisted in the second attack on Manzanillo, when 4 Spanish war vessels were burned and blown up, 2 transports burned, and 4 other war vessels beached and totally disabled. This result was achieved without loss of life or damage to United States ships. Fired 748 shells during this action. On Aug. 9 captured Spanish schooner attempting to run blockade off the Isle of Pines. The "Hornet" was schooner rigged, 180 feet long, with a breadth of 24 feet and a tonnage of 301.89. She carried 3 6-pounders, 2 1-pounders, 2 Colts, and 2 other guns.

Hudson.—Revenue cutter. First-Lieut. F. H. Newcomb. Rescued the "Winslow" when the latter vessel was disabled at Cardenas on May 11, 1898. The "Winslow" had been engaged with shore batteries.

Indiana.—First-class battle ship. 32 officers, 441 men. Cost, \$3,020,000. Launched Feb. 28, 1893. First commission, Nov. 20, 1895. Capt. H. C. Taylor. On April 22, 1898, joined Admiral Sampson's fleet on the way to blockade Havana. On April 25 aided in capture of Spanish steamer. On April 26 with cable-cutting expedition. On May 4 formed one of fleet to search for Cervera's squadron. On May 12 took part in bombardment of San Juan fortifications, Puerto Rico. On June 22 engaged with Santiago batteries. On duty at blockade of Santiago until July 1. Next day took part in bombardment of Santiago forts. On July 3 the "Indiana" was close into the Morro when the Spanish ships came out of Santiago harbor and received the fire of each ship, at the same time keeping up a hot fire on the escaping vessels. Within forty minutes the "Indiana's" guns fired nearly 1,000 shells from 13-inch to 6-pounders, with about 20 1-pounder shots. Was in action about one hour and twenty minutes, or until she had assisted in beaching or sinking the "Maria Teresa," "Oquendo," "Vizcaya," "Pluton," and "Furor," and fired a number of shells at the "Cristobal Colon." On July 10-11 engaged in long-range bombardment of Santiago city. On July 17 proceeded to Guantanamo Bay and prepared to accompany Eastern squadron.

Iowa.—First-class battle ship. 36 officers, 469 men. Cost, \$3,010,000. Launched March 28, 1896. First commission, June 16, 1897. Capt. R. D. Evans. Took part in bombardment of Morro battery, San Juan, Puerto Rico, on May 12, 1898. Three men wounded, being struck by fragments of a shell which exploded abreast of the after 8-inch turret. On May 22 joined Commodore Schley's squadron off Cienfuegos. On May 24 took part in Cienfuegos blockade. On May 29 took up position off Santiago harbor. Took part in firing at Spanish vessels in Santiago harbor on May 31, 1898. Participated in engagement with Spanish squadron on July 3, 1898, heading toward the "Infanta Maria Teresa" (Admiral Cervera's flagship), then leading the Spanish squadron, and fired first shot, at a distance of about 6,000 yards. The course of the "Iowa" was so laid that the range speedily diminished. A number of shots were fired at ranges varying between 6,000 and 4,000 yards. The range was rapidly reduced to 2,500 yards, and subsequently to 2,000 and to 1,200 yards.

"When it was certain," says Capt. Evans in his official report, "that the 'Maria Teresa' would pass ahead of us, the helm was put to starboard, and the starboard broadside delivered at a range of 2,500 yards. The helm was then put to port and the ship headed across the bow of the second ship,

and as she drew ahead the helm was again put to starboard and she received in turn the full weight of our starboard broadside at a range of about 1,800 yards. The 'Iowa' was again headed off with port helm for the third ship, and as she approached the helm was put to starboard until our course was approximately that of the Spanish ship. In this position at a range of 1,400 yards the fire of the entire battery, including rapid-fire guns, was poured into the enemy's ship.

"About ten o'clock the enemy's torpedo-boat destroyers 'Furor' and 'Pluton' were observed to have left the harbor and to be following the Spanish squadron. At the time that they were observed, and in fact most of the time that they were under fire, they were at a distance varying from 4,500 to 4,000 yards. As soon as they were discovered the secondary battery of this ship was turned upon them, while the main battery continued to engage the 'Vizcaya,' 'Oquendo,' and 'Maria Teresa.' The fire of the main battery of this ship when the range was below 2,500 yards was most effective and destructive, and after a continuance of this fire for perhaps twenty minutes it was noticed that the 'Maria Teresa' and 'Oquendo' were in flames and were being headed for the beach. Their colors were struck about 10.20, and they were beached about 8 miles west of Santiago.

"About the same time (about 10.25) the fire of this vessel, together with that of the 'Gloucester' and another smaller vessel, proved so destructive that one of the torpedo-boat destroyers ('Pluton') was sunk and the 'Furor' was so much damaged that she was run upon the rocks. After having passed, at 10.35, the 'Oquendo' and 'Maria Teresa,' on fire and ashore, this vessel continued to chase and fire upon the 'Vizcaya' until 10.36, when signal to cease firing was sounded on board, it having been discovered that the 'Vizcaya' had struck her colors. At eleven the 'Iowa' arrived in the vicinity of the 'Vizcaya,' which had been run ashore, and, as it was evident that she could not catch the 'Cristobal Colon,' and that the 'Oregon,' 'Brooklyn,' and 'New York' would, two steam cutters and three cutters were immediately hoisted out and sent to the 'Vizcaya' to rescue her crew. Our boats succeeding in bringing off a large number of officers and men of that ship's company, and in placing many of them on board the torpedo boat 'Ericsson' and the auxiliary dispatch vessel 'Hist.' About 11.30 the 'New York' passed in chase of the 'Cristobal Colon,' which was endeavoring to escape from the 'Oregon,' 'Brooklyn,' and 'Texas.'"

The "Iowa" was selected as one of the vessels of the Eastern squadron, which was organized for service along the coast of Spain.

Justin.—Steamer converted into collier. Commissioned in United States navy April 27, 1898. Commander George E. Ide. Served chiefly in Virginian waters.

Katahdin.—Armored ram. 7 officers, 90 men. Cost, \$930,000. Launched Feb. 4, 1893. First commission, Feb. 20, 1896. Commander G. F. F. Wilde. Served chiefly in Massachusetts and Virginian waters.

Lancaster.—Wooden steam vessel. Built in 1858. Commander Thomas Perry. Commissioned May 5, 1898, as a station ship to be stationed at Key West, Fla. Arrived at Key West, May 31. Became flagship of Commodore G. C. Remey, commandant of the naval base of operations. Remained there during the entire war on that service.

Lebanon.—Steamer converted into collier. Commissioned in United States navy April 16, 1898. Lieut.-Commander C. T. Force. Stationed chiefly in Cuban waters.

Leonidas.—Steamer converted into collier, Commissioned in United States navy May 21, 1898. Commander W. I. Moore. Served chiefly in Virginian waters. Visited Guantanamo and Santiago.

Leyden.—Iron steam tug. On North Atlantic station. Boatswain J. W. Angus commanding to May 6, 1898; Ensign W. S. Crosley then assumed command. Attacked by Spanish troops at Nipe Bay on July 21, 1898. Afterward, on same date, attacked by and engaged with Spanish vessel in vicinity. This vessel, the "Jorge Juan," was sunk by united efforts of the "Leyden," "Wasp," and "Annapolis." Accompanied Puerto Rican expedition. Supported naval force in holding lighthouse at Cape San Juan, Puerto Rico, on Aug. 9, 1898.

Machias.—Gunboat. 11 officers, 140 men. Cost, \$318,500. Launched Dec. 8, 1891. First commission, July 20, 1893. Commander J. F. Merry commanding to June 27, 1898; Commander W. W. Mead then assumed command. Served on the Cardenas, Matanzas, and Havana blockade. Took part in the battle at Cardenas to the extent of guarding the main channel. Was senior officer's vessel in conveying 6 troopships from Key West to Siboney. Captured or assisted in capturing 2 steamers and 3 schooners.

Mangrove.—Lighthouse tender. Commanded by Lieut.-Commander Daniel D. V. Stuart, from June 7, 1898. Served chiefly between Key West and Havana. Engaged with two Spanish gunboats, Aug. 14, 1898, off Caibarien harbor. Captured the "Panama" on April 25, 1898.

Manning.—Revenue cutter. Capt. F. M. Munger, R. C. S. Engaged Spanish forces in vicinity of Cabañas on May 12, while covering the landing of the "Gussie's" expedition. On same date engaged Spanish batteries off Moriel. Served on blockade duty off Bahia Honda. Accompanied Gen. Shafter's expedition, and was present during operations before Santiago. Served with squadron in action at Santa Cruz. On blockade duty off Cienfuegos.

Maple.—Lighthouse tender. Lieut.-Commander W. Kellogg. On blockade duty off Havana, Matanzas, Cardenas, and Gibara. Took part in firing on 4 Spanish war ships when the latter were endeavoring to leave Havana. Captured Spanish sloop on July 21, 1898. While on blockade duty at Isle of Pines engaged the enemy and sunk one vessel.

Marblehead.—Unprotected cruiser. 20 officers, 228 men. Cost, \$674,000. Launched Aug. 11, 1892. First commission, April 2, 1894. Commander B. H. McCalla (promoted to captain, Aug. 10). On blockade duty at Havana. Captured Spanish steamer, containing 11 Spanish army officers, near Cienfuegos. Served with flying squadron, and took part in blockade off Santiago and attack on batteries. With the "Yankee," reconnoitered Guantanamo Bay, engaged gunboat and fought, and severed cable. Engaged in two actions off Cienfuegos, in one of which, when cable cutting, 2 men were killed and 5 wounded. After actual hostilities with Spain had ceased an officer and 12 men from the "Marblehead" successfully raised the Spanish gunboat "Sandoval," which had been sunk in 23 feet of water. As soon as the occupation of Guantanamo Bay was assured the "Marblehead" opened communication with the Cuban army and conveyed supplies and arms to the Cuban army and people, and landed Cuban troops to aid the marines occupying the eastern side of the entrance to the bay. Now on North Atlantic station, under command of Capt. W. W. Mead.

Marietta.—Unarmored composite gunboat. Commissioned in United States navy Sept. 1, 1897. Commander F. M. Symonds. Accompanied the "Oregon"

from Punta Arenas, on April 17, to a point between Rio de Janeiro and Bahia. Reached Key West on June 4, 1898, after a long voyage from Sitka, Alaska, which latter place she started from on Dec. 9, 1897.

Mayflower.—Converted yacht. Commander M. R. S. Mackenzie. Joined Admiral Sampson's squadron on April 19, 1898. Three days later sent one mile ahead of the squadron as a scout. Served on the blockade of Havana almost continuously during the war. On May 8 captured a large fishing vessel. On May 15 engaged with two Spanish gunboats. On July 19 captured a British steamer attempting to run the blockade with foodstuffs, drugs, and chemicals. Carried the official dispatches concerning the sinking of the "Merrimac." Detailed to accompany the Eastern squadron to Spain. Did efficient service as a dispatch boat.

Massachusetts.—First-class battle ship. 32 officers, 441 men. Cost, \$3,020,000. Launched June 10, 1893. First commission, June 10, 1896. Capt. F. J. Higginson. Ordered to Hampton Roads, March 17, 1898. Left Key West, May 19, and assisted in blockade of Cienfuegos from May 22 to May 24. Took part in firing at Spanish war ships off Santiago harbor on May 29, then assisted in blockade. More firing on May 31. Engaged with shore batteries off Santiago, June 16. Participated in bombardment of Santiago, July 2. With four other vessels convoyed Puerto Rican expedition, leaving Guantanamo July 21.

McKee.—Torpedo boat. Cost \$45,000. Launched March 5, 1898. First commission, May 16, 1898. Lieut. C. M. Knepper. Served chiefly at Southern points.

McLane.—Revenue cutter. First-Lieut. W. E. Reynolds, R. C. S. Assigned by Admiral Sampson, at beginning of war, to protect the submarine cable between the naval base at Key West and the mainland. Continued in this service until Aug. 26, 1898.

Merrimac.—Commander J. W. Miller. Commissioned in United States navy April 11, 1898. Served as a collier with North Atlantic squadron. Sunk in the channel at Santiago harbor by Assistant-Naval-Constructor Hobson and a volunteer crew of six men on June 3, 1898.

Miantonomoh.—Double-turreted monitor. 13 officers, 136 men. Launched Dec. 5, 1876. First commission, Oct. 27, 1891. Capt. M. L. Johnson. Served chiefly in Southern waters and on Cuban blockade. On the fall of Santiago was ordered to Puerto Rico, accompanying other vessels of the fleet on the expedition.

Minneapolis.—Protected cruiser. 30 officers, 447 men. Cost, \$2,690,000. Launched Aug. 12, 1893. First commission, Dec. 13, 1894. Served in flying squadron. Capt. T. F. Jewell. Ordered to patrol eastern coast United States, April 23, 1898. Placed on watch to discover Cervera's fleet, May 13. Proceeded to Venezuelan coast, May 15, thence to Santiago on May 19. Afterward in Southern waters.

Montgomery.—Unprotected cruiser. 20 officers, 237 men. Cost, \$612,500. Launched Dec. 5, 1891. First commission, June 21, 1894. Commander G. A. Converse. Sent to Havana to replace the "Maine," March, 1898. Attended upon the Court of Inquiry. On April 26 convoyed the transport "Panther," having on board marines comprising the "First Battalion of Occupation" for Cuba. Served on Havana blockade from May 1 to May 3. Proceeded with fleets in search of Cervera, acting as scout and dispatch vessel. On May 12 took part in engagement with land batteries at San Juan, Puerto Rico. Served on several searching expeditions. Flagship of Commodore J. C. Watson from May 23 to June 4. Convoyed the monitors to Puerto Rico. Towed the "Amphitrite" from Cardenas to Port Nipe, and the



THE BATTLE SHIP "OREGON."

"Puritan" from Cape Haitien to San Juan. On Aug. 4, with the "Puritan," captured the lighthouse at Cape San Juan. Co-operated with the army at Ponce from Aug. 6 to Aug. 10. Recovered torpedoes from the wrecks of Cervera's fleet on Aug. 26. From Aug. 31 to Sept. 21 acted as convoy to the monitors from Puerto Rico to Hampton Roads.

Morrill.—Revenue cutter. Capt. H. D. Smith, R. C. S. Served chiefly between Key West and Havana, and between Port Tampa and St. Petersburg, Fla.

Morris.—Torpedo boat. Cost, \$85,000. First commission, May 11, 1898. Lieut. C. E. Fox. Served in Southern waters. Now out of commission.

Nashville.—Light-draught gunboat. 11 officers, 165 men. Cost, \$290,000. Launched Oct. 19, 1895. First commission, Aug. 19, 1897. Commander Washburn Maynard. On April 22, 1898, captured a Spanish steamer. Served on blockade duty off Port Mariel and Cienfuegos. On April 29 captured a Spanish steamer with 10 officers and 10 men of the Spanish army. Took part in engagements with Spanish troops at Cienfuegos while cutting cables. On this occasion 2 officers and 5 men were wounded. Afterward served on blockade duty at Havana and other points. On July 26 captured 2 Spanish schooners. Now serving on North Atlantic station.

Newark.—Protected cruiser. 34 officers, 350 men. Cost, \$1,248,000. Launched March 19, 1890. First commission Feb. 2, 1891. Capt. A. S. Barker commanding to Aug. 6, 1898; Capt. C. F. Goodrich reported from that date to close of war. Assigned to Eastern squadron June 27, 1898. One hour before the peace protocol was signed the "Newark" began a bombardment of Manzanillo. Four other vessels were engaged and much damage was done before news was received that hostilities had been suspended.

New Orleans.—Protected cruiser. 24 officers, 383 men. Launched Dec. 4, 1896. Date of purchase, March 16, 1898. First commission, March 18, 1898. Capt. W. M. Folger. In flying squadron from May 9 to May 24, 1898. Was present at landing of Gen. Shafter's troops at Daiquiri, and shelled the vicinity before the landing was made. Engaged at Santiago, May 31, in ascertaining strength and location of batteries. With Commodore Schley's squadron.

Neuport.—Gunboat. 11 officers, 124 men. Cost, \$229,400. Launched Dec. 5, 1896. First commission, Oct. 5, 1897. Commander B. F. Tilley. Served on Cuban blockades off Mariel, Cabañas, and Havana. Accompanied third expedition to the Philippines, having Gen. Merritt on board. Reached Manila July 25.

New York.—Armored cruiser. 40 officers, 516 men. Cost, \$2,985,000. Launched Dec. 2, 1891. First commissioned Aug. 1, 1893. Capt. F. E. Chadwick. On March 26, 1898, when Rear-Admiral Sampson assumed command, the "New York" was at Key West with the rest of the squadron, and remained there until April 22, when the whole force proceeded to the blockade of Cuban ports. Was engaged in action against the batteries at Matanzas and at the bombardment of San Juan, Puerto Rico. Was blockading off Santiago from June 1; in action against the batteries, June 6, June 16, and July 2; shelled Spanish position at Aguadores, July 1; present at the battle of Santiago, July 3; bombarded Santiago several times during the siege after that date, and remained in service in the vicinity after the surrender on July 16 until Aug. 12, 1898.

Niagara.—Special class. Commissioned in United States navy April 18, 1898. Commander E. S. Prime. Served as distilling ship with North Atlantic squadron.

Oneida.—Converted yacht. 2 officers, 22 men. First commission in United States navy, April 30,

1898. Lieut. W. G. Miller. Served in Southern waters, then between Key West and Havana.

Oregon.—First-class battle ship. 32 officers, 441 men. Cost, \$3,180,000. Launched Oct. 26, 1893. First commission, July 15, 1896. Capt. C. E. Clark commanding to Aug. 6, 1898; Capt. A. S. Barker from that date to close of war. Arrived at Key West, May 26, 1898, from a long cruise, which began on March 19, at San Francisco. Left Key West, May 28, for blockade duty, arriving at Santiago on June 1. On June 6 took part in general bombardment of the outer fortifications of Santiago. Performed reconnoissance duty at Guantanamo, landing marines for the purpose. On June 16 again took part in bombardment. On July 1 shelled the city of Santiago from the eastward of the harbor entrance. On July 2 took part in general bombardment. On July 3 participated in destruction of Cervera's fleet, taking part in the chase and capture of the "Cristobal Colon." Assigned for duty with the Eastern squadron, and became flagship.

Osceola.—Converted tug. Lieut. J. L. Purcell. Served with blockading squadron at Havana. Convoyed the steamer "Florida" and aided in landing expedition on Cuban coast. Served on blockade duty off Santiago. Engaged 6 shore batteries at Manzanillo, July 1, with the "Scorpion." On July 18, with 5 other vessels, engaged the enemy at Manzanillo for three and a half hours, destroying 3 transports, 1 armed pontoon, and 5 gunboats. Took part in other engagements on July 22, July 26, and Aug. 12.

Panther.—Auxiliary cruiser. 18 officers, 185 men. First commission in United States navy, April 22, 1898. Commander G. C. Reiter. On May 24 landed marines at Cuba, and towed the "Amphitrite" to join blockading squadron. Performed scout duty during May. Landed parties of marines successfully. Aided in protecting marine encampment. On Aug. 27 started from Santiago with part of the Ninth Massachusetts, Volunteer Infantry, and landed them at Montauk Point.

Peoria.—Auxiliary gunboat. Commissioned in United States navy May 15, 1898. Lieut. T. W. Ryan. Convoyed an expedition sent to Cuba on the "Florida" and "Fanita." Took part in attack on Spaniards when expedition was landed at Tunas. Expedition subsequently re-embarked, and was landed at Palo Alto.

Piscataqua.—Converted tug. Commissioned in United States navy June 18, 1898. Lieut.-Commander N. E. Niles. Served on blockade and other duty off Cuban coast, including Havana, Mariel, Cabañas, and Bahia Honda.

Pompey.—Steamer converted into collier. Commissioned in United States navy May 26, 1898. On duty in Southern waters, and off Havana, Cardenas, and Isle of Pines, Cuba. Commander J. W. Miller.

Porter.—Torpedo boat. 4 officers, 28 men. Cost, \$144,000. Launched Sept. 9, 1896. First commission, Feb. 20, 1897. Lieut. J. C. Fremont. Covered the landing of marines from the transport "Panther" at Guantanamo Bay on June 10, 1898, with six other vessels.

Prairie.—Auxiliary cruiser. 18 officers, 267 men. First commission in United States navy, April 14, 1898. Commander C. J. Train. With the "Castine," destroyed large four-masted steamer when the latter was attempting to run the blockade at Mariel on July 5, 1898. On same date, with the "Hawk" and "Castine," sunk a gunboat and shelled the shore batteries. On duty off Havana and Gibara, also at Guantanamo, San Juan, and Ponce, Puerto Rico, and Santiago, Cuba. At Ponce pulled the "Massachusetts" and "Manitoba," loaded with men and horses, off a shifting sand bar. Afterward released the steam collier "Saturn" from a similar

predicament in the same locality. Conveyed part of the Seventh Colorado Regiment to Montauk.

Princeton.—Gunboat. 11 officers, 124 men. Cost, \$230,000. Launched June 3, 1897. First commission, May 27, 1898. Commander C. H. West. On blockade duty along Cuban coast, and engaged on the coasts of British Honduras, Guatemala, and Mexico, searching for Cuban blockade runners.

Potomac.—Converted tug. Lieut. G. P. Blow. On duty principally at wrecks of "Maria Teresa" and "Cristobal Colon," also in Guantanamo Bay and at Santiago.

Puritan.—Double-turreted monitor. 22 officers, 208 men. Launched Dec. 6, 1882. First commission, Dec. 10, 1896. Capt. P. F. Harrington commanding to June 18, 1898; Capt. Fred Rodgers from that date to close of war. Took part in the first action of the war, bombarding and silencing the forts at Matanzas, in company with the "New York" and "Cincinnati." Took part in naval expedition under Admiral Sampson, on May 4, along the northern coast of Cuba. Captured a Spanish schooner and sloop at Cape San Juan, Puerto Rico, on Aug. 2.

Resolute.—Special class. Commissioned in United States navy May 11, 1898. Commander J. G. Eaton. Received prisoners from the "Cristobal Colon" at Santiago. Took part in action off Manzanillo, Aug. 12. When hostilities were suspended conveyed marine force north.

Rodgers.—Torpedo boat. 4 officers, 20 men. Cost, \$97,500. Launched Nov. 10, 1896. First commission, April 2, 1898. Lieut. J. L. Jayne. On duty principally in Guantanamo Bay and off Santiago.

San Francisco.—Protected cruiser. 33 officers, 350 men. Cost, \$1,428,000. Launched Oct. 26, 1889. First commission, Nov. 15, 1890. Capt. R. P. Leary. During May and June served on Massachusetts coast. Established blockade from Nuevitas to Nipe in rear of the Spanish forces at Santiago early in July. Fired at by the eastern forts, Havana, on Aug. 12, the same date on which the peace protocol was signed. About 20 shots were fired at her at a 2 miles' range. Was struck once by a fragment from a 10- or 12-inch shell, which burst on the water astern.

Saturn.—Steamer converted into collier. Commissioned in United States navy April 11, 1898. Commander S. W. Very commanding to June 4, 1898; Commander G. A. Bicknell from that date to close of war. Served with flying squadron and afterward under Admiral Sampson, then on duty at Puerto Rico. Did much effective service as a collier, and in emergent cases where other vessels needed assistance.

Scindia.—Steamer converted into collier. Commissioned in United States navy May 21, 1898. Commander E. W. Watson. Served at Guantanamo and in Southern waters. Assigned to Eastern squadron.

Scorpion.—Converted yacht. 8 officers, 103 men. First commission in United States navy, April 11, 1898. Lieut.-Commander Adolph Marx. Served with flying squadron. On June 9 narrowly escaped engagement with the British war ship "Talbot" near Nuevitas, mistaking the latter for a Spanish ship. With the "Osceola," entered Manzanillo harbor on July 1, and engaged 4 gunboats, another vessel, 5 shore batteries, and troops in vicinity. Aided in capturing a number of vessels during Cape Cruz blockade. Took part in engagement at Manzanillo, destroying 4 gunboats, July 18.

Sioux.—Converted tug. Commissioned in United States navy April 9, 1898. Ensign W. R. Gherardi.

Siren.—Converted yacht. 5 officers, 87 men. First commissioned in United States navy June 24,

1898. Lieut. J. M. Robinson. Served on Havana blockade. On Aug. 1 cut out the Norwegian steamer "Franklin," a blockade runner, from under the guns of a Spanish cruiser, and took her to Key West as a prize. The captured vessel was conveyed by 3 Spanish gunboats, but they left her and proceeded out of gunshot range as the "Siren" approached. On Aug. 7, with the "Viking," captured a blockade runner.

Solace.—Special class. Ambulance ship. Commissioned in United States navy April 14, 1898. Commander A. Dunlap. Served between Cuban points and United States. Carried sick and wounded from Cienfuegos, Guantanamo Bay, Santiago (including Spaniards), Puerto Rico, and Key West to United States hospitals.

Southery.—Steamer converted into collier. Commissioned in United States navy April 30, 1898. Commander Walton Goodwin. Served in Cuban waters, including Guantanamo Bay and Santiago. Also at Hayti.

Sterling.—Steamer converted into collier. Commissioned in United States navy April 16, 1898. Commander R. E. Impey. Served in Southern waters, then with flying squadron when searching for Cervera. At Santiago and Puerto Rico.

Stranger.—Converted yacht. 8 officers, 49 men. First commission in United States navy, June 30, 1898. Lieut. G. L. Dyer. Served in Cuban waters.

Supply.—Special class. Supply ship. On special service under Lieut.-Commander W. W. Kimball.

Suwanee.—Lighthouse tender. Lieut.-Commander D. Delehanty. Conveyed the "Gussie" on Cuban expedition in May. Lieut. Victor Blue, of this vessel, with an armed boat's crew, captured 2 schooner yachts at Cayo Frances on May 31. Aided in shelling a fort in Guantanamo Bay on June 15. Supported position held by marines in same locality. Aided in covering landing of Gen. Shafter's troops at Daiquiri, June 22. Participated in shelling of fortifications at Aguadores on July 2. Took part in bombardment of Manzanillo on Aug. 12.

Sylvia.—Converted yacht. 5 officers, 31 men. First commission in United States navy, June 29, 1898. Lieut. G. H. Peters. Served in southern waters and off Havana. Now out of commission.

Talbot.—Torpedo boat. Cost, \$39,000. Launched Nov. 14, 1897. First commission, April 4, 1898. On North Atlantic station. Lieut. W. R. Shoemaker commanding from July 10, 1898, to close of war. Served at Key West and Piedras Cay, Cuba.

Tecumseh.—Converted tug. Lieut. G. R. Evans. Served between Key West and Havana.

Terror.—Double-turreted monitor. 26 officers, 151 men. Launched March 24, 1883. First commission, April 15, 1896. Capt. Nicoll Ludlow. Participated in engagement off San Juan, Puerto Rico, May 12, 1898. Served at Cardenas, off Havana, and at Guanica and Ponce, Puerto Rico.

Texas.—Second-class battle ship. 30 officers, 359 men. Cost, \$2,500,000. Launched June 28, 1892. First commission, Aug. 15, 1895. Capt. J. W. Philip. Served in flying squadron. Landed 40 marines at Guantanamo with 2 Colt automatic guns to support force of marines already on shore. On June 15 aided in shelling a fort in Guantanamo Bay. Engaged a battery at Daiquiri on June 22 to cover landing of Gen. Shafter's army. Served on Santiago blockade. Took part in destruction of Cervera's fleet. In the official report of part taken by the "Texas" in chase and destruction of Cervera's fleet, Capt. Philip says: "As the leader, bearing the admiral's flag, appeared in the entrance she opened fire, which was, at 9.40, returned by the 'Texas' at a range of 4,200 yards while closing in. The ship leading was of the 'Vizcaya' class and the flag-ship. Four ships came out, evidently the 'Vizcaya,'

the 'Oquendo,' 'Maria Teresa,' and 'Colon,' followed by two torpedo-boat destroyers. Upon seeing these two we immediately opened fire upon them with our secondary battery, the main battery at the time being engaged with the second and third ships in line. Owing to our secondary battery, together with the 'Iowa' and 'Gloucester,' these two destroyers were forced to beach and sink.

"While warmly engaged with the third in line, which was abreast and engaging the 'Texas,' our fire was blanketed for a short time by the 'Oregon' forging ahead and engaging the second ship. This third ship, after a spirited fire, sheered inshore, and at 10.35 ran up a white flag. We then ceased fire on the third and opened fire with our forward guns at long range (6,600 yards) on the second ship (which was then engaged with the 'Oregon') until 11.5, when she (enemy's second ship) sheered in to the beach on fire.

"At 11.10 she struck her colors. We ceased fire and gave chase, with 'Brooklyn' and 'Oregon,' for the leading ship until 1.20, when the 'Colon' sheered in to beach and hauled down her colors, leaving them on deck at foot of her flagstaff. We shut off forced draught and proceeded at moderate speed to close up." Participated in bombardment of Santiago city, July 10.

Topeka.—Gunboat. Launched in 1881. Commander W. S. Cowles. Served off Havana and at Port Nipe, Cuba. Took part in the capture of Port Nipe and in the destruction of a Spanish gunboat.

Uncas.—Converted tug. Commissioned in United States navy April 6, 1898. Lieut. F. R. Brainard. Served between Key West, Matanzas, Havana, and Cardenas.

Vesuvius.—Dynamite gunboat. 6 officers, 63 men. Cost, \$350,000. Launched April 28, 1888. First commission, June 7, 1890. Lieut.-Commander John E. Pillsbury. Participated in bombardment of fortifications at Santiago. Ran into Santiago channel after the sinking of the "Merrimac," on a tour of investigation.

Vicksburg.—Gunboat. 11 officers, 124 men. Cost, \$329,400. Launched Dec. 5, 1896. First commission, Oct. 28, 1897. Commander A. B. H. Lillie. Served between Havana and Key West; also on duty off Havana. Now in use as a training ship.

Viking.—Converted yacht. 8 officers, 40 men. First commission in United States navy, May 11, 1898. Lieut.-Commander J. C. Wilson. Served on blockade off the coast of Cuba from Matanzas to Nuevitas. Captured a steamer off Cay Frances. Convoyed and protected the landing of a Cuban expedition at Cay Santa Maria.

Vixen.—Converted yacht. 6 officers, 76 men. First commission in United States navy, April 11, 1898. Lieut. A. Sharp. Aided in covering the landing of marines from the "Panther," at Guanatanamo Bay. Took part in the pursuit and destruction of Cervera's fleet. Commodore Schley, in his official report of the engagement on July 3, 1898, said: "Lieut. Sharp, commanding the 'Vixen,' acted with conspicuous courage; although unable to engage the heavier ships of the enemy with his light guns, nevertheless he was close in to the battle line under heavy fire, and many of the enemy's shot passed beyond his vessel." The 'Vixen,' during the naval operations at Santiago, took part in all the bombardments, had frequent communications with the insurgents, brought the Cuban generals to the commander in chief, carried flags of truce, made reconnoissances for landing places for the army, carried Cuban soldiers, was a general dispatch boat, and was the first vessel to enter Santiago harbor after the surrender of the Spanish army.

Vulcan.—Special class. Repair ship. Commissioned in United States navy May 22, 1898.

Wasp.—Converted yacht. 4 officers, 51 men. First commission in United States navy, April 11, 1898. Lieut. A. Ward. Served on Havana blockade. Participated in engagement off Cabafias on May 12, 1898. Accompanied Gen. Shafter's expedition to Santiago. Took part in bombardment of Daiquiri to cover the landing of the army. Served as convoy to the transport "Catania" to Siboney. Took part in exploration of Nipe Bay in search of torpedoes and mines. With the "Leyden" attacked Spanish cruiser "Don Jorge Juan" and brought about its destruction. Participated in attack on Ponce, Puerto Rico, July 27. On Aug. 1, with the "Gloucester," attacked Arroya. Was present when the first hostile shots were fired at the army during the "Gussie" expedition, and was also present at Nipe when the last gun of the war was fired from a Spanish war ship.

Wilmington.—Light-draught gunboat. 10 officers, 165 men. Cost, \$280,000. Launched Oct. 19, 1895. First commission, May 13, 1897. Commander C. C. Todd. Served on blockade duty around Cuba. On May 3 shelled Spanish forces erecting batteries east of Havana. On May 4 covered landing of ammunition for Cubans, bombarding a block-house and driving off a regiment of cavalry. On May 11 entered Cardenas Bay with the "Winslow" and "Hudson," destroying 2 Spanish gunboats. On July 18 entered Manzanillo harbor with other vessels, destroyed 8 transports, 1 guard ship, and 6 gunboats. On July 20 bombarded and drove the Spanish forces from Santa Cruz del Sud, and repeated this work on July 24. Cut the submarine cable south of Cuba in three places: July 16, between Santa Cruz and Jucaro; between Jucaro and Tunis on July 21; and between Tunas and Trinidad on July 22—cutting all cable connections on the south side. During hostilities the "Wilmington" was on several occasions detailed to secretly land and take from shore couriers between Gen. Maximo Gomez and the national authorities. These missions were successfully accomplished.

Windom.—Revenue cutter. Capt. S. E. Maguire, R. C. S. Convoyed the collier "Saturn" to Cienfuegos, May 8 to 10, 1898. Took part in firing on fortified lighthouses, driving back a military force from vicinity of Colorado Point, at entrance to Cienfuegos harbor. Carried sick and wounded men to Key West. Afterward served on blockade duty off Havana.

Winslow.—Torpedo boat. 4 officers, 20 men. Cost, \$97,500. Launched Jan. 6, 1897. First commission, Dec. 29, 1897. Lieut. J. B. Bernadou. On blockade duty off Havana, Matanzas, and Cardenas. On May 11, 1898, with the "Wilmington" and "Hudson," took part in engagement at Cardenas with Spanish gunboats and shore batteries. Was disabled, Ensign Worth Bagley and 4 sailors being killed, and Lieut. Bernadou and 2 others wounded.

Wompatuck.—Converted tug. Lieut. C. W. Jungen. On blockade duty off Havana. Accompanied Admiral Sampson's squadron on cruise to San Juan. Co-operated with the "St. Louis" in cutting cables on the south side of Cuba. Engaged with Spanish gunboats and shore batteries, also Spanish troops, when on this duty. Served with convoy of army transports to Santiago. On dispatch duty. Assisted in landing troops at Daiquiri. At Manzanillo, with "Hist" and "Hornet," engaged four gunboats and a cruiser, also shore batteries and other artillery. Took part in second engagement at Manzanillo, in which much damage was done to enemy's ships. Now out of commission.

Woodbury.—Revenue cutter. Capt. H. B. Rogers, R. C. S. No record available.

Yankee.—Auxiliary cruiser. 15 officers, 267 men. First commission in United States navy,

April 14, 1898. Commander W. H. Brownson. In patrol squadron from May 6 to May 29, 1898. On blockade duty off Santiago. Took part in bombardment of the batteries on June 6, 1898. Next day, at Guantanamo Bay, with the "Marblehead," engaged a gunboat and fort. On same date destroyed Spanish blockhouses in vicinity. On June 13 established the blockade of Cienfuegos. Engaged and partially destroyed a Spanish gunboat. On June 25 captured five fishing vessels off the Isle of Pines. Afterward assigned to Eastern squadron. Returned to New York Aug. 21. On Sept. 2 the Naval Militia was mustered out.

Yankton.—Converted yacht. 8 officers, 70 men. First commission in United States navy, May 16, 1898. Lieut.-Commander J. D. Adams. Engaged a shore battery to protect the "Eagle" off Point Muno and Casilda on June 29, 1898. Chased a four-masted steamer, supposed to be the "Alfonso XII," off Cienfuegos, but without making capture, having insufficient speed. Served at Santiago, Cienfuegos, and Guantanamo.

Yosemite.—Auxiliary cruiser. Commander W. H. Emory. In patrol squadron from May 6 to May 30, 1898. Aided in covering the landing of marines at Guantanamo. Assigned to Eastern squadron. Engaged with Spanish transport off San Juan, June 10, 1898. Served off Havana and Santiago, and at Puerto Rico.

Flying Squadron.—The vessels comprising the flying squadron, including the "Brooklyn," "Columbia," "Katahdin," "Massachusetts," "Merri-mac," "Minneapolis," "New Orleans," "Scorpion," "Sterling," "Texas," and "Saturn," are referred to under the preceding heading, "North Atlantic Fleet," to which they properly belonged.

On Special Service.—*Harvard*.—Auxiliary cruiser. 26 officers, 381 men. Capt. C. S. Cotton. On April 29, 1898, ordered to ascertain whether the Spanish fleet, lately at Cape de Verde Islands, intended moving upon the West Indies. Blockaded by Spanish fleet at St. Pierre, Martinique, on May 13. Ordered to Key West, May 14, but proceeded to Mona Passage, West Indies. Ordered to Santiago, May 25. Aided in rescuing Spanish prisoners after destruction of Cervera's fleet at Santiago, taking on board 35 officers and 637 men from the Spanish vessels, including 38 sick and wounded. Brought from Santiago to United States Thirty-third Michigan Volunteers, also a number of staff officers, reaching Long Island on Aug. 25.

St. Louis.—Auxiliary cruiser. Capt. C. F. Goodrich. Attempted to cut Santiago-Jamaica cables, but withdrew after discovery by Spanish patrol boat, May 18, 1898. Endeavored to cut French cable at Guantanamo, but retired when attack of Spanish gunboat proved too annoying, May 19. On May 20 severed French cable to Cuba. Grappled for cable near Ponce, Puerto Rico, on May 22. Sent in search of the Spanish fleet on April 29. Sent to notify Admiral Sampson that Spanish squadron had arrived off Martinique, May 13. Ordered to Santiago on May 20, and instructed, with the "Minneapolis," "St. Paul," and "Harvard," to keep in communication with the Spanish fleet. Assisted in landing Gen. Shafter's troops in Cuba, June 22 to 26.

St. Paul.—Auxiliary cruiser. 24 officers, 357 men. Commissioned in the United States navy April 20, 1898. Capt. C. D. Sigsbee. On duty between Morant Point, Jamaica, and west end of Hayti, watching for Spanish squadron. Ordered to Key West for dispatch service, May 14. Ordered to Cape Haytien on May 19. Chased and intercepted a British collier on May 25, near Santiago harbor. The vessel was made a prize, with 2,400 tons of coal. Sent with dispatches on May 29 from Commodore Schley to Admiral Sampson. The "St. Paul" did hard duty off

Santiago, giving chase to suspected vessels, sometimes several during a day, at a speed exceeding 19 knots. Aided in shelling the forts and town at Guantanamo on June 15. Blockaded San Juan, Puerto Rico. On June 22, while on this duty, was attacked by the Spanish torpedo-boat destroyer "Terror." The "Terror" made a dash, which was awaited by the "St. Paul," and while still at long range the destroyer was struck by three shells, which so disabled her that she dropped back under cover of the fortifications with difficulty, and was towed into the harbor in a sinking condition. Disembarked the Eighth Ohio Regiment at Siboney on July 14.

Yale.—Auxiliary cruiser. 25 officers, 381 men. Capt. W. C. Wise. Ordered to ascertain locality of Spanish fleet, proceeding to Puerto Rico and other points. On May 8 captured cargo steamer "Rita." On May 14 ordered to San Juan, Puerto Rico. Sent to inform vessels off Santiago as to locality of flying squadron, May 20. Landed troops at Guanica, Puerto Rico, as one of the vessels in Puerto Rican expedition under Gen. Miles.

Pacific Station.—*Albatross*.—Fish Commission vessel. Lieut.-Commander J. F. Moser commanding to July 14, 1898; Lieut.-Commander C. K. Curtis from that date to Aug. 1, when Lieut.-Commander J. F. Moser again assumed command. On duty principally in Californian waters. Served from Aug. 11 to Sept. 7 on cruise to Acapulco, Mexico.

Bennington.—Gunboat. 16 officers, 179 men. Cost, \$490,000. Launched June 3, 1890. First commission, June 20, 1891. Commander H. E. Nichols commanding to July 14, 1898; Lieut.-Commander J. F. Moser from that date to Aug. 1, when Commander E. D. Taussig assumed command. Served at Hawaiian Islands and on Pacific coast.

Corwin.—Revenue cutter. Capt. W. J. Herring, R. C. S. Served as an auxiliary cruiser on the Pacific coast, and assigned to duty off San Diego, Cal., for the purpose of guarding the mine fields at the entrance of the harbor.

Grant.—Revenue cutter. Capt. J. A. Slamm, R. C. S. Aided in defense of San Francisco harbor until July 15, 1898. On Aug. 3 ordered from Seattle, Wash., on a six weeks' cruise in Alaskan waters in search of a reported Spanish privateer, and to protect Klondike traffic. Visited 33 harbors and boarded and searched 12 vessels.

Mohican.—Wooden steam vessel. Built in 1872-'83. 21 officers, 186 men. Commander G. M. Book. Served on Pacific coast and at Hawaii.

Monadnock.—Double-turreted monitor. 26 officers, 157 men. Launched Sept. 19, 1883. First commission, Feb. 20, 1896. Served in the civil war, taking part in the second attack on Fort Fisher, January, 1865. Capt. W. H. Whiting. Served on Pacific coast, at Hawaiian Islands, and at the Philippines. Sailed June 25 from San Francisco for Manila, preceding Gen. Merritt's expedition. Arrived at Manila Aug. 16.

Monterey.—Double-turreted monitor. 19 officers, 176 men. Cost, \$1,628,950. Launched April 28, 1891. First commission, Feb. 13, 1893. Capt. C. E. Clark commanding to May 24, 1898; Commander E. H. C. Leutze assumed command on that date. Served on Pacific coast, Hawaiian Islands, and in the Philippines. Sailed from San Diego for Manila June 11, 1898. Arrived at Manila Aug. 4.

Perry.—Revenue cutter. Capt. W. J. Kilgore, R. C. S. Employed as a patrol vessel on Puget Sound and at the mouth of the Columbia river.

Philadelphia.—Protected cruiser. 34 officers, 350 men. Cost, \$1,350,000. Launched Sept. 7, 1889. First commission, July 28, 1890. Capt. G. H. Wadleigh. Served on Pacific coast and at Hawaii.

Rush.—Revenue cutter. Capt. W. H. Roberts, R. C. S. No record available.

Wheeling.—Unarmored gunboat. First commission, Aug. 10, 1897. Commander Uriel Seabee. Served on Pacific coast and in Alaskan waters.

Asiatic Station.—**Baltimore.**—Protected cruiser. 36 officers, 350 men. Cost, \$1,325,000. Launched Oct. 6, 1888. First commission, Jan. 7, 1890. Capt. N. M. Dyer. Participated in naval battle at Manila Bay, May, 1, 1898. Capt. Dyer, in his official report to Commodore (Admiral) Dewey of the engagement, said:

"At 10.55 you made general signal 'designated vessel will lead' with 'Baltimore's' distinguishing pennant, and in a few minutes signal to 'attack the enemy's batteries or earthworks' and for fleet to 'close up'; in obedience to which order this ship led in, with starboard helm, to a position off the Cafiaoa and Sangley Point batteries and opened fire with starboard battery at a distance of about 2,800 yards, closing in to 2,200, between which and 2,700 yards our best work was done, slowing the ship dead slow, stopping the engines as range was obtained, delivering a rapid and accurate fire upon the shore batteries and a gunboat just inside of Sangley Point, since proved to have been the 'Don Antonio de Ulloa,' practically silencing the batteries in question before the fire of another ship became effective, owing to the lead we had obtained in our start for the supposed Spanish steamer."

The "Baltimore" was struck five times with small projectiles. 2 officers and 6 men were wounded.

Boston.—Protected cruiser. 19 officers, 259 men. Cost, \$619,000. Launched Dec. 4, 1884. First commission, May 2, 1887. Capt. Frank Wildes. Participated in naval battle at Manila Bay, May 1, 1898. The Boston was struck four times without receiving material damage. Occupied sixth place in the attacking column, bringing up the rear.

Brutus.—Steamer converted into collier. Commissioned in United States navy May 27, 1898. Lieut. V. L. Cottman. Served on Asiatic station.

Charleston.—Protected cruiser. 20 officers, 286 men. Cost, \$1,017,500. Launched July 19, 1888. First commission, Dec. 26, 1889. Capt. Henry Glass. On May 10 ordered from Honolulu to Manila, in company with the "City of Pekin." Also instructed to capture Guam, in the Marianas, seizing the governor and any armed force present. Carried out instructions and raised the United States flag at Guam. Sailed from Honolulu on June 4, with "City of Pekin," "Australia," and "City of Sydney" under convoy. Seized Guam on June 21.

Concord.—Gunboat. 13 officers, 181 men. Cost, \$490,000. Launched March 8, 1890. First commission, Feb. 14, 1891. Commander Asa Walker. Participated in battle of Manila Bay, May 1, 1898. From May 2 to May 6 captured numerous Spanish tugs and destroyed batteries at entrance to bay. On July 7 to 10, with the "Raleigh," visited Subig Bay and captured Spanish force of about 600 men on Grande island. On Aug. 13 was stationed north of the Pasig river during bombardment and fall of Manila. On blockade duty after that date.

McCulloch.—Revenue cutter. Commissioned December, 1897. Capt. D. B. Hodgson. Served in the Philippines. Took part in naval battle at Manila, May 1, 1898, forming a part of the attacking squadron. On entering Manila Bay, received and returned the fire of the Spanish batteries at the entrance. During the battle was assigned to the duty of protecting the squadron supply ships from attack by Spanish gunboats, and while so employed was under fire of the batteries at Manila and Sangley Point. As dispatch boat, carried the news of Admiral Dewey's victory to Hong-Kong, May 7.

During the blockade of the port of Manila, which followed, divided with the United States steamers "Concord" and "Petrel" the guard duty of the squadron and boarded a great number of vessels, both national and merchant, entering the bay. Captured the Spanish gunboat "Leyte" off the mouth of the Pasig river, June 29. Was in the battle line at the bombardment and capture of Manila, Aug. 13. Subsequently captured, in Batangas Bay, the filibustering steamer "Abbey," engaged in bringing arms and ammunition to the insurgents. Putting a prize crew on board, the "McCulloch" slipped the "Abbey's" cables and towed her beyond the reach of the guns of the insurgents before they realized what was being done. The prize was then towed to Cavité and turned over to the commander in chief. Later, the "McCulloch" was given the duty of completing the destruction of the Spanish batteries at the entrance to Manila Bay, which she did, by throwing the guns there on El Fraile Rock into the bay, dismounting the batteries on Caballo and Corregidor islands, and destroying the carriages. She was detached from the Asiatic squadron Nov. 16, 1898, and ordered to proceed to San Francisco. Capt. Hodgson was relieved and ordered to return home, June 6, his command being turned over to Capt. Foley.

Monocacy.—Iron steam vessel. Built in 1863. 12 officers, 146 men. Commander O. W. Farenholt. Has served on the Asiatic station constantly since 1866. Was the leading vessel under Admiral John Rodgers in 1870 in the attacks of the fort at Seoul, Korea. Since that time has repeatedly visited every port, bay, island, and river from Singapore to Vladivostok, doing valuable service in the protection of life and property. Stationed at Shanghai during last war protecting American interests on the Yangtse-Kiang and in the north of China.

Nanshan.—Steamer converted into collier. Purchased by Admiral Dewey before war was declared, with 3,000 tons of coal on board. Served with Asiatic squadron.

Nero.—Steamer converted into collier. Commissioned in United States navy June 8, 1898. Commander Charles Belknap. Served with Asiatic squadron.

Olympia.—Protected cruiser. 34 officers, 416 men. Cost, \$1,796,000. Launched Nov. 5, 1892. First commission, Feb. 5, 1895. Capt. C. V. Gridley commanding to May 25, 1898; Capt. B. P. Lambertson from that date to close of war. Served in the Philippines. Participated in naval battle at Manila, May 1, 1898. On that occasion was flagship of Commodore (Admiral) Dewey. In his official report of the part taken by the "Olympia" in this engagement Capt. Gridley said:

"On April 30 we stood down for the entrance to Manila Bay. At 9.42 p. m. the crew were called to general quarters (the ship having been previously cleared for action) and remained by their guns, ready to return the fire of the batteries if called upon. At about 11.30 p. m. we passed through Boca Grande entrance of Manila Bay. The lights on Corregidor and Caballo islands and on San Nicolas Banks were extinguished. After this ship had passed in the battery on the southern shore of entrance opened fire at the ships astern, and the 'McCulloch' and the 'Boston' returned the fire."

"At 4 a. m. of May 1 coffee was served out to officers and men. At daybreak sighted shipping at Manila. Shifted course to southward and stood for Cavité. At 5.6 two submarine mines were exploded near Cavité, bearing south-southeast, distant 4 miles. At 5.15 battery on Shangle Point opened fire, but the shell fell short. Other shells passed over us, ranging 7 miles. At 5.41 a. m. we

opened fire on Spanish ships with forward 8-inch guns, which were soon followed by the 5-inch battery. A rapid fire was kept up until the close of the action. The range varied from 5,000 to 2,000 yards. A torpedo boat ran out and headed for this ship, but was finally driven back by our secondary battery. She came out a second time and was again repulsed. This time she had to be beached, as several shot had hit her. Batteries from Manila fired occasional shots at the ships during the action, but did no damage.

"At 6.20 turned to starboard and headed back in front of the Spanish line. The 'Olympia' led the column three times to the westward and twice to the eastward in front of the Spanish ships and shore batteries. On one occasion the Spanish flagship 'Reina Cristina' was hit by an 8-inch shell from our forward turret and raked fore and aft. At 7.35 ceased firing and stood out into Manila Bay. The men went to breakfast. Many of the Spanish ships were seen to be on fire, and when we returned at 11.16 to complete the destruction of the Spanish fleet only one, the 'Don Antonio de Ulloa,' and the shore batteries returned our fire. The former was sunk and the latter were silenced. At 12.40 P. M. stood back to Manila Bay and anchored."

Capt. Gridley was ordered home by a medical board about May 27, left Manila the following day, and died at Kobe, Japan, on June 3.

Petrel.—Gunboat. 10 officers, 112 men. Cost, \$247,000. Launched Oct. 13, 1888. First commission, Dec. 10, 1889. Commander E. P. Wood. Served in the Philippines. Took part in naval battle at Manila, May 1, 1898, being fourth from head of column on entering Manila Bay and during first part of engagement. In second part of engagement followed the "Olympia." In the official report of Commander E. P. Wood he said, with reference to subsequent orders at the end of the general engagement:

"In obedience to a signal from flagship to destroy all shipping in the harbor, Lieut. Hughes was sent with a whaleboat's crew of seven men, this whaleboat being the only one on the ship which would float, and set fire to the 'Don Juan de Austria,' 'Isla de Cuba,' 'Isla de Luzon,' 'General Lezo,' and 'Marques del Duero.' Afterward Ensign Fermier was sent to set fire to the 'Velasco' and 'El Correo.' The 'Isla de Cuba,' 'Isla de Luzon,' and 'Don Juan de Austria' were aground and full of water when they were fired. Their outboard valves were opened and the ships allowed to fill. The breech plugs of 4-inch guns had been taken off and could not be found. During the night the magazines of the 'Don Juan de Austria' blew up. The 'Manila' was not burned because the Spanish officers begged that she be not destroyed because she was unarmed and a coast-survey vessel. Lieut. Fiske and Passed-Assistant Engineer Hall raised steam on the ship this morning, the 4th inst., and brought her out. At the time she was aground. The 'Don Antonio de Ulloa' was sunk and the 'Reina Cristina' and 'Castilla' were burning in outer harbor. Lieut. Fiske was sent ashore and brought off two tugboats, the 'Rapido' and 'Hercules,' and three steam launches."

Raleigh.—Protected cruiser. 20 officers, 298 men. Cost, \$1,100,000. Launched March 31, 1892. First commission, April 17, 1894. Capt. J. B. Coghlan. On service in the Philippines. Took part in naval battle at Manila, May 1, 1898. In his official report of the part taken by the Raleigh in this engagement Capt. J. B. Coghlan said:

"At a few minutes after 5 A. M. this vessel, so soon as the Spanish vessels at Cavité bore on the port bow, opened fire with the 6-inch gun, and then with the 5-inch guns in succession, as fast as they would bear. The secondary-battery guns did not seem to

reach the enemy, and their fire was soon stopped and not again used until the distance was considerably lessened. At 11.20 A. M., when signal was made to re-engage, this vessel started ahead full speed (using reserve speed) to keep up with the flagship, but it was found to be impossible, and, falling behind all the time, I cut across to gain line abreast of Cavité battery just as the flagship passed the 'Baltimore' at that port, at which time we opened fire with all guns. At 12, in obedience to signal, this vessel attempted to get into the inner harbor to destroy enemy's vessels, but, getting into shoal water—20 feet—was obliged to withdraw, and so reported. While attempting to get inside the battery was used on an enemy vessel at anchor (supposed to be the 'Don Antonio de Ulloa') until she sank. Not being able to find a channel farther inside, and everything in sight having been destroyed, this vessel at 1.30 P. M. withdrew and later anchored near the flagship."

When Aguinaldo informed Admiral Dewey that his troops had taken all of Subig Bay except Isla Grande, which he was prevented from taking by the German war ship "Irene," the admiral ordered the "Raleigh" and "Concord" to that place. They took the island and about 1,300 men with arms and ammunition.

Zafiro.—Special class. Supply ship. Lieut. W. McLean. Purchased by Commodore Dewey at Hong-Kong, with 7,000 tons of coal on board. Served with Asiatic squadron. Was present during naval battle at Manila, May 1, 1898.

Other Vessels on Active Service during the War. *Alliance*.—Wooden steam vessel. Commander A. Ross. On training service, chiefly at Newport, R. I., and New London, Conn.

Buccaneer.—Converted yacht. Lieut. A. N. Mayer. At Port Tampa, Key West, Hampton Roads, Va., and New York. No duty recorded.

Cheyenne.—Converted tug. Lieut. George H. Swan. Auxiliary naval force. Stationed in South Carolina and Florida.

City of Pekin.—Special class. Transport. Commander W. C. Gibson. Served at San Francisco, Cal., Hawaii, Guam, Philippines, Japan. Carried part of first expedition to Manila, starting from San Francisco, May 25, 1898. Called at Honolulu en route. Was accompanied by the "Australia" and "City of Sydney."

Choctaw.—Converted tug. Auxiliary naval force. Lieut. W. O. Hulme. Stationed at points in Florida, Louisiana, and Texas.

Elfrida.—Converted yacht. Auxiliary naval force. Commanded by (1) Lieut. M. A. Orlopp; (2) Lieut. W. H. Stayton; (3) Lieut. M. A. Orlopp; (4) Lieut. T. C. Zerega. Served at points in New York, Connecticut, and New Jersey.

Governor Russell.—Special class. Ferryboat converted into auxiliary gunboat. Lieut. C. H. Grant. Stationed at points in North Carolina, South Carolina, and Virginia.

Hector.—Steamer converted into collier. Commander F. M. Wise. On special service, chiefly at Key West and Port Tampa, Fla.

Iris.—Special class. Distilling ship. Lieut. A. B. Connor. Served chiefly at points in Virginia and New York.

Jason.—Armored iron vessel; low freeboard, single-turret monitor. Commanded by (1) Lieut. H. F. Fickbohm; (2) Lieut. G. I. Jones. Auxiliary naval force. Served chiefly at points in New York, Connecticut, and Pennsylvania.

Kanawha.—Converted yacht. Lieut. F. F. Fletcher. Served chiefly at points in Cuba, South Carolina, and Virginia.

Lehigh.—Armored iron vessel; low freeboard, single-turret monitor. Commanded by (1) Lieut. R.

G. Peck; (2) Lieut. A. B. Denny. Auxiliary naval force. Served chiefly at points in Massachusetts.

Massasoit.—Converted tug. Ensign J. Cottrell. Served chiefly at points in South Carolina, Florida, Georgia, and Virginia.

Montauk.—Armored iron vessel; low freeboard, single-turret monitor. Commanded by (1) Lieut. L. L. Reamey; (2) Lieut. H. R. Cohen; (3) Lieut. R. J. Beach. Auxiliary naval force. Served chiefly at points in Massachusetts, Maine, Delaware, and Pennsylvania.

Nahant.—Armored iron vessel; low freeboard, single-turret monitor. Commanded by (1) Lieut. C. S. Richman; (2) Lieut. G. B. Townsend; (3) Lieut. E. M. Harmon. Auxiliary naval force. Served chiefly at points in New York and Pennsylvania.

Passaic.—Armored iron vessel; low freeboard, single-turret monitor. Commanded by (1) Lieut. F. H. Sherman; (2) Lieut. L. W. Bartlett; (3) Lieut. J. W. Bostick. Auxiliary naval force. Served chiefly at points in Florida and Louisiana.

Powhatan.—Converted tug. Lieut. F. M. Russell. Auxiliary naval force. Served chiefly at points in Alabama and Florida.

Restless.—Converted yacht. Commanded by (1) Lieut. A. W. Dodd; (2) Lieut. A. H. Day. Auxiliary naval force. Served chiefly at points in Connecticut and New York.

Seminole.—Converted tug. Lieut. James H. Dilaway. Served chiefly at points in Massachusetts.

Sylph.—Converted yacht. Lieut. W. J. Maxwell. On special service. Served chiefly between Washington, D. C., and points in Virginia.

Tacoma.—Converted tug. Lieut. J. S. Watters. Auxiliary naval force. Served chiefly at points in Florida.

Waban.—Converted tug. Lieut. J. D. Adkins. Auxiliary naval force. Served chiefly at Key West, Fla.

Wyandotte.—Armored iron vessel; low freeboard, single-turret monitor. Commanded by (1) Lieut. J. B. Milton; (2) Lieut. T. I. Madge. Auxiliary naval force. Served chiefly at Boston, Mass.

Naval Militia.—The complete organization of the auxiliary naval force, consisting of 41 vessels, was as follows: At headquarters, J. R. Bartlett, captain, U. S. N., retired, chief; Herbert L. Satterlee, lieutenant, U. S. N., chief of staff; Henry W. Fitch, chief engineer, U. S. N., retired, fleet engineer; Warren L. Sawyer, assistant paymaster, U. S. N.; 1 chief yeoman, 1 stenographer, and 1 messenger. The first district, from the most easterly point of Maine to Hampton harbor, New Hampshire, R. J. Beach, lieutenant, U. S. N., assistant to chief, with headquarters at Portland. To this district were attached the monitors "Montauk" and "Wyandotte." The latter, however, was never sent to her station at Bath, Me.

The second district, from Hampton harbor, New Hampshire, to Newport, R. I., J. W. Weeks, lieutenant, U. S. N., assistant to chief, with headquarters at Boston. Attached to this district were the United States revenue steamer "Minnesota," the monitors "Catskill" and "Lehigh," the tug "Seminole," and the yacht "Inca." The third district, from Newport, R. I., to Seabright, N. J., J. W. Miller, lieutenant commander, U. S. N., assistant to chief, with headquarters at New York city. Attached to this district were the United States revenue steamer "New Hampshire"; the monitors "Jason," "Manhattan," and "Nahant"; the yachts "Aileen," "Elfrida," "Enquirer," "Frelance," "Huntress," "Restless," and "Shearwater"; and the torpedo boat "Manly." The monitor "Manhattan," however, was never sent to her station at Newport; the "Jason" was stationed at Fisher's island, and the "Nahant" at Tompkinsville.

The fourth district, from Seabright, N. J., to Metomkin inlet, Virginia, Lieut. J. S. Mucklé, U. S. N., assistant to chief, with headquarters at Philadelphia. Attached to this district were the United States revenue steamer "St. Louis," the monitors "Canonicus" and "Mahopac," and the side-wheel steamboat "Arctic." The fifth district, from Metomkin inlet, Virginia, to New River inlet, North Carolina, Isaac E. Emerson, lieutenant, U. S. N., assistant to chief, with headquarters at Baltimore, Md. The vessels attached to this district were the United States revenue steamer "Dale," the monitor "Ajax," and the yacht "Sylph." The sixth district, from New River inlet, North Carolina, to Jupiter inlet, Florida, George L. Morton, lieutenant, U. S. N., assistant to chief, with headquarters at Port Royal, S. C. The vessels attached to this district were the monitor "Nantucket" and the tugs "Cheyenne," "Chickasaw," and "Waban."

The seventh district, from Jupiter inlet, Florida, to Perdido entrance, Florida, J. C. Sutherland, lieutenant, U. S. N., assistant to chief, with headquarters at Pensacola, Fla. Attached to this district was the tug "Tacoma" and the battalion of the auxiliary naval force at the Pensacola Navy Yard. The eighth district, from Perdido entrance, Florida, to the most westerly point of Texas, J. W. Bostick, lieutenant, U. S. N., assistant to chief, with headquarters at New Orleans, La. Attached to this district were the monitor "Passaic" and the tugs "Choctaw" and "Powhatan." The ninth district, the Pacific coast of the United States, W. E. Gunn, lieutenant, U. S. N., assistant to chief, with headquarters at San Francisco. Attached to this district were the revenue cutters "Corwin," "Grant," "Perry," and "Rush," and the tugs "Active," "Iroquois," and "Vigilant."

There were commissioned in the naval service from the Naval Militia: lieutenant commander, 1; lieutenants, 56; lieutenants (junior grade), 44; ensigns, 95; surgeons, 19; assistant paymasters, 14; engineers, 21; mates, 18; a total of 263 officers; and there were enlisted 3,832 men from the same source. The officers furnished their own uniforms and side arms, and the men came into the service armed, uniformed, and equipped.

About the middle of August the patrol boats were put out of commission as fast as their presence at the mine fields was no longer necessary, the submarine mines being removed. The monitors were ordered to proceed to League Island Navy Yard, with the exception of the "Passaic," which was ordered to Pensacola, and the "Nantucket" to Port Royal, and the revenue cutters were returned to the Treasury Department. There was some delay in getting all the monitors that were destined for that point to League island, owing to the fact that they had to be convoyed by tugs, which at that time were hard to procure. The tugs attached to the force were then, with one exception, in Gulf waters, and as soon as they were no longer needed for duty they were also laid up. The last yachts to be put out of commission were the "Aileen" and "Elfrida," which had been for some time used in the quarantine patrol at Camp Wikoff, Montauk Point, New York; however, on Sept. 26 all the vessels of the force had been placed out of commission and their crews discharged. The service of the auxiliary naval force or Naval Militia by States during the war was as follows:

California.—The Naval Militia of this State at the outbreak of hostilities consisted of 37 officers and 527 men. Of this number 13 officers and 80 men were mustered into the naval service, all of whom served on auxiliary naval force vessels.

Connecticut.—The Naval Militia of this State furnished 15 officers and 188 men to the naval

service. This force was divided during the war, most of it being on the receiving ship "Minnesota," under United States naval officers. The battalion was mustered out at Boston, in September, 1898. Some of the officers of the Connecticut naval battalion were placed on duty as commanders of small boats in the United States navy for a short period.

Florida.—The Naval Militia of this State, which at the outbreak of hostilities, numbered 24 officers and about 200 men, supplied 6 officers and 93 men to the naval service. Of this number, 2 officers and 58 men served on auxiliary naval force vessels, and 4 officers and 35 men served in the Coast Signal Service.

Illinois.—The Naval Militia of this State furnished 19 officers and 709 men to the naval service. All volunteered for the war and saw active service in every field of naval operations on the Cuban and Porto Rican coasts. The majority of this number were assigned as follows: "Accomac," 1 man; "Alexander," 1 officer; "Amphitrite," 2 men; "Annapolis," 8 men; "Bancroft," 6 men; "Cassius," 1 officer, 27 men; "Cincinnati," 60 men; "Cushing," 8 men; "Detroit," 2 men; "Dorothea," 3 men; "Fern," 1 officer, 8 men; "Foote," 2 men; "Franklin," 1 officer and 18 men; "Harvard," 57 men; "Hawk," 2 men; "Hector," 21 men; "Indiana," 17 men; "Kanawha," 1 officer; "Lancaster," 4 officers and 46 men; "Lebanon," 3 men; "Leyden," 1 officer and 4 men; "Mangrove," 1 man; "Maple," 9 men; "Marietta," 16 men; "Massachusetts," 1 man; "Montgomery," 20 men; "Nashville," 12 men; "Newark," 17 men; "New Orleans," 3 men; "Newport," 26 men; "Niagara," 4 men; "Oregon," 60 men; "Osceola," 1 man; "Peoria," 1 man; "Puritan," 6 men; "Resolute," 2 men; "Rodgers," 1 man; "San Francisco," 8 men; "Saturn," 1 man; "Scorpion," 1 officer; "Siren," 1 officer; "Solace," 1 man; "Southery," 1 officer and 9 men; "Sterling," 2 officers; "Stranger," 1 officer; "Suwanee," 4 men; "Tecumseh," 1 man; "Terror," 9 men; "Texas," 1 officer; "Vicksburg," 8 men; "Viking," 2 men; "Vulcan," 1 man; "Wasp," 8 men; "Wilmington," 13 men; "Winslow," 2 men; "Wompatuck," 5 men; "Yale," 84 men; "Yankton," 1 officer and 39 men.

Louisiana.—The Naval Militia of this State furnished a total of 19 officers and 214 enlisted men to the navy. In addition to this number about 200 men were recruited by the State authorities after the outbreak of hostilities, but were not taken into the regular service, enlistment in which had been stopped. Of the above number supplied to the service, 10 officers and 94 enlisted men were detailed to the United States steamer "Passaic," 7 officers and 97 men to the United States auxiliary naval force and at the Pensacola Navy Yard, and 2 officers and 23 men to the Coast Signal Service. Of this detail to the Pensacola Navy Yard, 35 were sent to the receiving ship "Lancaster" at Key West and afterward distributed to the ships of the North Atlantic fleet. In addition to the above naval militia-men, 6 of the Louisiana battalion served in the Revenue Marine Service, 20 served on army transports, 25 served in the various volunteer regiments recruited in the State of Louisiana, 3 enlisted in the Fifth United States Cavalry, 2 in the Eighteenth United States Infantry, and 2 in the volunteer artillery. These last were men who failed to get into the naval service, but were anxious to serve their country in any capacity.

Maryland.—The Naval Militia of this State at the outbreak of the war consisted of 20 officers and 320 men, and its commanding officer was authorized by the Governor to increase this number as occasion demanded. The total mustered into the United States naval service was 24 officers and 425 petty

officers and enlisted men, who were assigned as follows: "Ajax," 2 officers and 55 men; "Apache," 4 officers and 24 men; "Dale," 4 officers and 31 men; "Dixie," 10 officers and 267 men; "Dolphin," 1 man; "Elfrida," 5 men; Equipment Bureau, 1 officer; "Katahdin," 3 officers; "Lancaster," 25 men; "Minneapolis," 11 men; "Restless," 6 men.

Massachusetts.—The Naval Militia of this State supplied 38 officers and 384 men to the naval service. Of this number, 7 officers and 138 men served on the United States steamer "Prairie"; 20 officers served on the auxiliary naval force vessels "Minnesota," "Lehigh," "Catskill," "Governor Russell," "East Boston," "Wyandotte," "Inca," and "Seminole"; and 2 officers and 36 men served in the Coast Signal Service. After the outbreak of hostilities this organization was increased in accordance with an act of the Legislature of Massachusetts by 4 divisions, each containing 3 officers and 55 men.

Michigan.—The Naval Militia of this State, which at the beginning of the war consisted of 18 officers and 175 men, furnished 11 officers and 270 men to the naval service, all of whom served on the United States steamer "Yosemite," many of this number having joined the organization after the commencement of hostilities.

New Jersey.—The Naval Militia of this State furnished 34 officers and 373 men to the naval service. Of this number 20 officers and 261 petty officers and men served on the United States steamer "Badger" and United States steamer "Resolute"; 9 officers and 74 petty officers and men in the auxiliary naval force on the United States steamer "Montauk"; and 1 officer and 19 petty officers and men in the Coast Signal Service.

New York.—The Naval Militia of the State of New York furnished 57 officers and 800 petty officers and men to the United States naval service. The following statement will show, in detail, the disposal of this force:

	Officers.	Men.		Officers.	Men.
"Abarenda".....	—	2	"Michigan" (2 officers from "Yankee").....	—	—
"Aileen".....	2	28	"Minnesota".....	—	1
"Alexander".....	—	9	"Montauk".....	1	—
Auxiliary naval force, New York.....	1	—	"Nahant".....	7	97
Auxiliary naval force, Washington.....	2	—	"New Hampshire".....	3	63
"Buffalo" (temporary duty).....	4	—	"New York" (see "Celtic" and "Iris" and "Sterling").....	—	—
"Cassar".....	—	2	"Resolute".....	1	—
"Celtic" and "New York".....	—	1	"Restless".....	—	25
Coast Signal Service, New York.....	2	27	"Rainbow" (temporary duty).....	2	—
Coast Signal Service, Washington.....	2	—	"St. Paul".....	—	1
"Enquirer".....	1	31	"Stranger".....	2	1
"Elfrida".....	1	19	"Sylph".....	1	—
"Freelance".....	2	17	"Sylvia".....	2	30
"Franklin".....	—	11	"Saturn".....	—	3
"Glacier".....	—	9	"Sterling" and "New York".....	—	1
"Harvard".....	—	1	"Topeka".....	1	—
"Huntress".....	2	23	"Vermont".....	2	2
"Hannibal".....	—	1	"Vicksburg".....	—	1
"Iris" and "New York".....	—	1	"Vixen".....	—	1
"Jason".....	6	85	"Yankee".....	8	270
"Kanawha".....	1	25	Hospital.....	—	7
"Katahdin".....	—	1	Wounded.....	—	1
"Leonidas".....	1	—	Died.....	—	4
			Total.....	57	800

North Carolina.—The Naval Militia of this State furnished 9 officers and 189 men to the naval service.

Pennsylvania.—The Naval Militia of this State at the outbreak of the war consisted of 19 officers and 252 petty officers and men; 15 commissioned officers and 84 petty officers and men were mustered into the naval service; 2 men from the ranks passed as officers and are included in the 15, but are not included in the 19. The reason why such a small number of men entered the service was that the Government stopped enlisting after two or three

divisions only had been examined, thus reducing the total examined by 4 commissioned officers and 84 petty officers and men. Two of the Philadelphia officers were unable to answer the call. Out of the two Philadelphia divisions examined, 49 were rejected physically, 21 were rejected because of under age, and the difference of 14 men did not report for examination. Those mustered into service were as follow: 1 officer to command the auxiliary naval force, fourth district; 1 officer to command United States revenue steamer "St. Louis"; 1 officer to command the United States steamer "Aileen"; 1 officer to command the United States steamer "Minneapolis"; 2 officers to command the United States steamer "Viking"; 6 officers and 58 men to the United States steamer "Arctic"; 2 officers to the United States steamer "Huntress"; 1 officer to the United States steamer "Sylph"; 21 men to the Coast Signal Service.

Rhode Island.—The Naval Militia organization of this State consisted of 15 officers and 159 men at the outbreak of hostilities, of which number 8 officers and 147 men were mustered into the naval service, not including the commanding officer, who, being on the retired list of the navy, was ordered to duty.

South Carolina.—At the outbreak of the war the Naval Militia of this State consisted of 21 officers and 302 men, which force was increased by 102 volunteers within ten days after hostilities commenced. Of this number, 18 officers, 6 mates, and 187 enlisted men were mustered into the naval service and were distributed as follow: "Celtic," 6 commissioned officers and 80 enlisted men; naval batteries, Port Royal, 5 commissioned officers and 40 enlisted men; Coast Signal Service, fourth district, 3 commissioned officers and 20 enlisted men; "Cheyenne," 1 commissioned officer and 15 enlisted men; "Chickasaw," 1 commissioned officer and 15 enlisted men; "Waban," 1 commissioned officer and 15 enlisted men; Assistant, naval station, Port Royal, 1 commissioned officer; "Massasoit," 1 mate; "Hercules," 1 mate; navy yard, New York, 4 mates; "Morrill," 2 enlisted men. Total (in United States navy, 211), 18 commissioned officers, 6 mates, and 187 enlisted men. In addition to the above, this organization furnished 16 men to the United States volunteer army; the remaining 198 men were not called out, but stood ready to serve at any time.

Virginia.—The Naval Militia of this State furnished 2 officers and 62 men to the navy, of which number 48 men were enlisted in the regular service and 2 officers and 11 men did duty in the Coast Signal Service.

Marine Corps.—This corps did excellent service in connection with naval movements during the war. The official marine record of service is not yet available for the purposes of this article. Marines, under First-Lieut. H. C. Haines, landed from the "Dixie" at Ponce, Puerto Rico, July 27, 1898, and aided the naval force in taking formal possession of the town.

Marine Battalion.—This battalion, organized at New York, April 17-22, 1898, under instructions from the Navy Department, consisted of 23 commissioned officers of the Marine Corps, 1 surgeon of the navy, and 623 enlisted men, all under command of Lieut.-Col. R. W. Huntington, U. S. M. C. The battalion was divided into 6 companies, 1 of which was an artillery company, having 4 3-inch rapid-fire guns. On April 22 the "Panther" sailed with the battalion of 24 commissioned officers and 623 enlisted men for Cuba, and arrived at Santiago de Cuba on the morning of the 10th. On the same day, at 1 p. m., the ship arrived at Guantanamo Bay, Cuba, and at 2 p. m. of that day the battalion landed, with stores, and prepared to go into camp. On the

11th the camp was attacked by a much superior force of Spaniards, and from that time until the 14th the battalion was constantly under fire, and repulsed the enemy on every attack. The holding of the position at Guantanamo Bay was of the utmost importance to the navy, as it furnished a base for the operations against Santiago and Admiral Cervera's division. Owing to the dense undergrowth, affording safe shelter to the Spanish sharpshooters, it would have been impossible for the vessels, by shelling the shore, to keep the enemy from harassing those on board the ships with their Mauser rifles to such an extent as to make it dangerous for them to remain there. Capt. George F. Elliott, on June 14, with a detachment of two companies of the battalion and 50 Cubans, was sent to destroy a well at Cuzco, about 6 miles from the camp, which was the only water supply of the enemy within 12 miles. This force, amounting to about 275 men, attacked and defeated a body of about 500 Spaniards and accomplished the destruction of the well. About 1 a. m. on the morning of June 12, during a very severe attack on the camp, Assistant-Surgeon John Blair Gibbs, U. S. N., was killed by a Mauser bullet.

UNITED STATES, FINANCES OF THE. The net ordinary receipts of the Government for the fiscal year ending June 30, 1898, exclusive of the postal service, amounted to \$405,321,335, being greater than for any year since 1867. There was a falling off in customs revenue compared with the previous year of \$26,979,065; in profits on coinage, bullion deposits, etc., \$2,483,344; but there was a gain in internal revenue receipts of \$24,212,067, substantially offsetting the losses. In addition to the increased gains from the sources mentioned, the Government received in satisfaction of its advances to the Union Pacific Railroad, being in full for the principal and for interest advances to date of settlement, Nov. 1, 1897, the sum of \$58,448,224, and in reimbursement in full for the principal advanced to the Kansas Pacific Railroad \$6,303,000. Under this settlement the Government is reimbursed for all advances made to the roads except for the interest on the Kansas Pacific. Against these receipts no corresponding items of expenditures appear, consequently the deficit in ordinary revenue appears to be only \$38,047,247, instead of more than \$100,000,000, as would have appeared but for the receipts arising from the reimbursements in question. It should be stated that the expenditures on account of the redemption of the principal of these railroad bonds, and of the interest thereon for which these amounts were received in reimbursement, had to a large extent been made in previous years, and the items entered respectively in the accounts of redemption of principal and interest on the public debt and not as ordinary expenditures.

Negotiations which have been long pending for the sale of the Government's interests in the Central Pacific Railroad have also, it is announced, been concluded, the Government accepting twenty interest-bearing notes of like amounts, payable at intervals of six months, aggregating precisely the amount of the principal of the bonds and the interest thereon advanced by the Government.

To meet additional anticipated demands upon the Treasury, Congress passed an act which was approved June 13, 1898, imposing additional internal revenue taxes and a duty on imported tea. It also authorized the Secretary of the Treasury to issue, not to exceed \$100,000,000 of certificates of indebtedness, to bear interest at a rate not exceeding 8 per cent. per annum, payable not exceeding one year from date of issue, and also 3-per-cent. bonds not to exceed \$400,000,000, redeemable in ten years and payable in twenty years after their issue, the proceeds to be used only to meet the anticipated

war expenditures. No receipts from either taxes or bonds, however, appear to have entered into the accounts of the fiscal year in question.

The ordinary expenditures during the year in question, exclusive of the postal service, amounted to \$443,368,583, a net increase over that of the previous year of \$77,594,423. This increase was mainly due to the action of Congress in the anticipation of a war between this country and the Kingdom of Spain. Under date of March 9, 1898, an act was approved appropriating for the national defense the sum of \$50,000,000, to be expended at the discretion of the President, and a large portion of it was disbursed before the close of the fiscal year.

The monthly debt statement shows that at the close of the calendar year, Dec. 31, 1898, the public debt for which no reserve is held was \$1,323,940,981, a net increase for the year of \$189,354,645. There was a decrease of \$3,399,332 on the amount due on the national bank redemption account and some unimportant changes in other items. The increase was mainly due to the issue of the new 3-per-cent. bonds, authorized by the act above mentioned, to the amount of \$192,846,780. The act provided that the bonds, if sold, should at first be offered at par as a popular loan in such way as would give the citizens of the United States an opportunity to participate in the subscription, preference in the allotment being given to subscriptions of individuals, the lowest amounts to be first allotted. The bonds were dated Aug. 1, 1898, and subscriptions were invited June 13, 1898, to the amount of \$200,000,000. The United States bonds of other issues were at that time selling at such a rate above par as to insure the success of the new loan beyond question. Promptly upon the issue of the invitation for subscriptions there came a response from every section of the country, and upon the close of the thirty days prescribed as the period for subscriptions there had been received at the department 232,224 subscriptions for \$500 and less, and 88,002 for more than \$500.

The total of subscriptions of \$500 or less was \$100,444,560, but the aggregate subscriptions somewhat exceeded \$1,400,000,000, a sum greater than the entire public debt then outstanding. Before the bonds could in the course of business reach the subscribers they were worth a premium of 1 to 5 per cent. at least, and have not since been lower.

The following tables show the receipts and expenditures in detail for the two years, including transactions in the postal service:

RECEIPTS.

SOURCE.	YEAR ENDING JUNE 30,	
	1898.	1897.
Customs	\$149,575,062	\$176,554,127
Internal revenue	170,900,641	146,688,574
Sale of Union Pacific Railroad	58,448,224	.....
Sale of Kansas Pacific Railroad	6,303,000	.....
Profit on coinage, bullion, deposits, etc	4,756,470	7,289,814
District of Columbia	3,693,283	3,566,180
Sinking fund for Pacific railways	781,987	2,277,173
Fees, consular, letters patent, and land	2,639,751	2,881,555
Customs fees, fines, penalties, etc	576,488	586,828
Tax on national banks	1,975,849	1,972,501
Navy Pension and Navy Hospital funds	1,146,500	1,122,883
Payment of interest by Pacific railways	526,286	942,148
Sales of Indian lands	576,687	845,419
Sales of public lands	1,243,129	864,582
Immigrant fund	306,003	300,036
Miscellaneous	1,870,895	1,870,025
Postal service	89,012,619	82,665,463
Total ordinary receipts	\$394,333,954	\$430,387,168
Loans and Treasury notes	333,227,920	349,930,230
Gross receipts	\$727,561,874	\$780,317,398

EXPENDITURES.

OBJECT.	YEAR ENDING JUNE 30,	
	1898.	1897.
Civil	\$24,020,809	\$23,720,808
Foreign intercourse	2,485,581	2,076,877
Military establishment:		
National defense	7,084,112	.....
Pay department	21,008,881	13,239,761
Commissary department	6,922,441	1,406,430
Quartermaster's department	18,613,118	6,502,718
Medical department	330,671	325,656
Ordnance department	2,587,064	1,689,490
Armament of fortifications	4,421,613	3,357,899
Gun and mortar batteries	5,362,597	3,999,715
Improving rivers and harbors	30,785,050	13,682,704
Expeditionary force to Cuba	500,034	.....
Signal service of the army	35,126	22,043
Support of national homes	3,200,084	3,054,266
Other items	4,226,749	3,890,082
Naval establishment:		
National defense	20,622,415	.....
Pay, etc., of the navy	8,691,667	7,999,390
Marine corps	1,174,974	1,053,677
Ordnance	1,652,784	897,189
Equipment	1,843,122	1,455,595
Yards and docks	1,774,571	1,575,580
Medicine and surgery	300,661	811,320
Supplies and accounts	3,349,548	1,971,560
Construction and repair	3,008,230	2,292,056
Steam engineering	1,496,418	1,130,229
Increase of the navy	10,753,359	14,539,911
General account of advances	2,268,702	308,903
Vessels for auxiliary naval force	852,010	.....
Other items	1,545,508	1,085,921
Miscellaneous:		
Public printing and binding	3,823,478	3,717,945
Assessing and collecting internal revenue	3,615,686	3,517,596
Mint establishment	861,428	261,522
Bounty on sugar	1,068,739	4,992,631
Collecting customs revenue	7,235,291	7,150,193
Revenue-cutter service	1,066,478	945,181
Life-saving service	1,537,740	1,507,341
Marine Hospital establishment	709,284	690,207
Lighthouse establishment	3,331,256	3,360,090
Engraving and printing	1,129,262	1,130,562
Customhouses, post offices, etc	3,760,686	3,758,796
Pay of custodians and janitors	928,999	749,110
Fuel, light, and water—public buildings	881,381	847,469
Furniture and apparatus—public buildings	300,954	351,356
Sinking fund Union Pacific Railroad	4,549,368	.....
District of Columbia	6,319,728	6,508,539
Deficiency in postal revenues	10,504,040	11,149,306
Department of Agriculture	2,354,101	2,178,530
Weather Bureau	839,207	848,260
Indiana	10,994,667	13,016,302
Pensions	147,452,369	141,053,165
Interest on public debt	37,585,056	37,791,110
Postal service	89,012,619	82,665,463
Other items	15,137,099	10,289,343
Total ordinary expenditures	\$532,481,502	\$448,439,008
Redemption of public debt	384,219,542	353,180,877
Gross expenditures	\$916,701,044	\$801,620,480

The following table shows in detail the changes in the debt during the calendar year:

DEBT WITHOUT RESERVE.	OUTSTANDING DEC. 31,	
	1898.	1897.
Funded loan continued at 3 per cent	\$25,364,500	\$25,364,500
Funded loan of 1897, 4 per cent	559,650,300	559,641,500
Refunding certificates, 4 per cent	39,100	44,220
Loan of 1894, 5 per cent	100,000,000	100,000,000
Loan of 1895, 4 per cent	162,315,400	162,315,400
Ten-twentieths of 1898	192,846,780	.....
Old loans matured	1,237,300	1,390,270
Old demand notes	53,997	54,347
United States notes (greenbacks)	246,681,016	246,681,016
National bank redemption account	28,968,814	32,368,146
Fractional notes	6,893,974	6,896,937
Total	\$1,323,940,981	\$1,134,586,396

The changes during the year in the debt having an equivalent reserve in cash have not been important in amount, but there is still a steady reduction in the amount of Treasury notes outstanding and an increase in that of silver certificates.

The table below shows the changes in detail:

DEBT WITH EQUIVALENT RESERVE.	OUTSTANDING DEC. 31,	
	1898.	1897.
United States notes (greenbacks).....	\$100,000,000	\$100,000,000
Treasury notes (1890).....	96,523,280	106,348,280
Currency certificates (1872).....	20,685,000	44,555,000
Gold certificates.....	86,808,999	88,128,149
Silver certificates.....	899,480,504	387,925,504
Total.....	\$653,447,783	\$676,956,933

The changes in the condition of the Treasury is set forth in detail in the table below. It will be seen that during the year there has been an increase in the cash and cash items of \$69,039,981. Of these there was an increase of deposits in national banks of \$45,678,199 owing to the policy of the Treasury Department of letting subscriptions to the 8-per cent. remain in the depository banks until the amount should be needed for use; thus preventing any monetary disturbance from a temporary contraction of the money in circulation. There was also a notable increase of gold coin or bullion. The supply of gold coin during the year has been so much in excess of the demands of the Treasury that the metal has become a common medium of circulation throughout the country. There also seems to have been a great demand for the small silver coins, the amount of which on hand having largely decreased.

ITEMS.	YEAR ENDING DEC. 31,	
	1898.	1897.
Liabilities:		
Gold certificates.....	\$86,808,999	\$88,128,149
Silver certificates.....	899,480,504	387,925,504
Currency certificates (1872).....	20,685,000	44,555,000
Treasury notes (1890).....	96,523,280	106,348,280
Redemption national bank notes.....	9,451,181	8,286,084
Public disbursing officers.....	68,888,267	34,384,799
Outstanding checks and drafts.....	8,929,435	6,838,785
General Treasury balance.....	294,764,695	235,474,769
Total.....	\$680,431,351	\$661,391,370
Assets:		
Gold coin or bullion.....	\$281,729,435	\$197,469,226
Silver dollars or bullion.....	497,253,512	496,611,785
United States notes.....	84,285,278	84,200,069
Treasury notes (1890).....	1,580,539	2,904,344
National bank notes.....	5,480,140	5,186,886
Balances in national bank depositories.....	94,860,916	49,182,717
Gold certificates.....	1,608,740	1,570,460
Silver certificates.....	7,098,509	11,229,912
Bonds and interest checks paid.....	35,687	29,288
Currency certificates (1872).....	220,000	1,340,000
Minor coins and fractional notes.....	829,272	1,066,754
Subsidiary silver coins.....	5,959,343	10,679,899
Total.....	\$980,431,351	\$961,391,370

The circulation of the country has also increased during the year in nearly all of the several kinds as will be seen by the following statement:

CIRCULATION OUTSIDE OF THE TREASURY.	IN CIRCULATION DEC. 31,	
	1898.	1897.
Gold coin.....	\$667,796,579	\$547,568,360
Standard silver dollars.....	65,183,553	61,491,073
Subsidiary silver.....	70,627,818	65,720,306
Gold certificates.....	35,200,259	26,557,689
Silver certificates.....	392,331,995	876,695,592
Treasury notes (1890).....	94,942,741	103,443,936
United States notes (greenbacks).....	312,415,738	262,480,927
Currency certificates (1872).....	20,465,000	43,315,000
National bank notes.....	238,387,729	223,827,755
Total.....	\$1,897,301,412	\$1,721,100,640

Gold coin alone has increased more than \$120,000,000—an unprecedented gain for a year. In the aggregate the gain has been \$176,200,772, nearly equal to the entire amount of gold coin in circulation in the country at the opening of the civil war in 1861.

The following table shows in detail the coinage of the year as compared with that of the previous year. There seems to have been a considerable falling off in the fabrication of double eagles and standard silver dollars:

CHARACTER.	VALUE.	
	1898.	1897.
Gold—		
Double eagles.....	\$46,974,460	\$59,804,820
Eagles.....	9,231,620	8,043,010
Half eagles.....	7,680,935	3,730,010
Quarter eagles.....	48,450	59,865
Total gold.....	\$64,634,865	\$71,646,705
Silver—		
Standard dollars.....	\$10,002,790	\$21,208,701
Half dollars.....	2,393,826	1,370,887
Quarter dollars.....	2,644,900	1,228,485
Dimes.....	1,444,078	524,314
Total silver.....	\$16,485,584	\$24,327,787
Minor—		
Five-cent nickel.....	\$950,767	\$609,819
One-cent bronze.....	538,717	374,690
Total minor.....	\$1,489,484	\$984,509
Grand total.....	\$82,609,933	\$96,959,001

UNIVERSALISTS. The "Universalist Register" for 1898 gives statistics of this denomination, of which the following is a summary: Number of parishes in the United States, Canada, Scotland, and Japan (45 State and other conventions), 991; of families, 53,708; of churches, 805, with 48,438 members; of Sunday schools, 658, with 53,730 members; of young people's religious organizations, 501, with 14,315 members; of churches, 782; value of church property, \$10,259,963. The 13 educational institutions (including 3 divinity schools and 1 medical school connected with universities) return 162 professors and teachers, 1,443 students, and property the value of which is estimated at \$3,786,590. The Convention of Scotland, organized in 1875, had in 1894 churches at Larnbert and Glasgow, with 95 members. No returns have been received from it since 1894. The mission in Japan was begun by the General Convention of 1890, and the National Convention of Universalists in Japan was organized in 1895. Three American and 3 Japanese missionaries are employed, and 7 students are recorded as in the field. The schools are the Uchu-Gakuin, the Kindergarten Training School, and the Shizuoka Girls' School. The Universalist Historical Society, organized in 1834, and incorporated under the laws of Massachusetts, has a library of about 400 volumes, besides important manuscripts. The Universalist periodicals include 5 general, Sunday-school, and young people's papers, and the "Universalist Register," a statistical yearbook.

URUGUAY, a republic in South America. The Senate has 19 members, 1 from each department, elected indirectly for six years; the Chamber of Deputies has 69 members, elected by direct suffrage for three years. The President, whose term of office is four years, at the beginning of 1898 was Juan Luis Cuestas, who as Vice-President succeeded Juan Idiarte Borda, assassinated on Aug. 22, 1897, for the remainder of the term ending March 1, 1898. The Cabinet appointed on Aug. 28, and reconstituted in December, 1897, was composed as follows: Minister of War and Marine, Gen. Gregorio Castro; Minister of the Interior and Justice, Edoardo Macachen;

Minister of Foreign Affairs, Señor Salterain; Minister of Agriculture, Industry, Public Instruction, and Public Works, Jacobo Varela; Minister of Finance, José Ramon Mendoza; Minister of Foreign Affairs and of Worship, Dr. Mendilharzu.

Area and Population.—The republic has an area of about 72,000 square miles, with a population of 827,485 in 1897 according to the enumeration, probably nearer 877,000. The number of marriages in 1897 was 2,746; of births, 27,763; of deaths, 13,013; excess of births, 14,750. The immigrants in 1897 numbered 9,140, including 3,651 Italians, 2,552 Spaniards, 672 Brazilians, 483 French, 287 Germans, and 225 English.

Finances.—The budget for the year ending June 30, 1898, the same that has been published every year since 1893, made the total expenditures 13,647,924 pesos, of which 505,490 pesos were for the executive power, 62,045 pesos for the presidency, 117,407 pesos for foreign affairs and worship, 2,213,694 pesos for the interior, 832,026 pesos for finance, 953,346 pesos for public works, 1,730,507 pesos for war and marine, 5,721,735 pesos for the public debt, and 1,511,674 pesos for other expenses. The receipts from customs in 1897 were 8,547,179 pesos. The consolidated foreign debt on July 1, 1898, was 100,409,672 pesos; the total debt, including a loan of 3,875,300 pesos raised in 1897, was 120,315,676 pesos, requiring the payment of 4,861,774 pesos interest and 1,066,774 pesos for the sinking fund.

Commerce.—The value of the imports in 1897 was 19,512,000 pesos; of the exports, 29,320,000 pesos. The exportation of wool was 12,403,000 pesos; hides, skins, and leather, 6,634,000 pesos; meat, 4,313,000 pesos; tallow, 1,299,000 pesos; extract of meat, 1,183,000 pesos; cereals, 1,040,000 pesos; animals, 782,000 pesos.

The values in pesos of the commerce with different countries were as follows:

COUNTRIES.	Imports.	Exports.
Great Britain.....	4,644,000	1,755,000
France.....	1,950,000	4,971,000
Belgium.....	1,124,000	4,962,000
Brazil.....	1,621,000	5,939,000
Germany.....	1,828,000	3,065,000
United States.....	1,506,000	2,887,000
Spain.....	1,689,000	397,000
Italy.....	1,697,000	721,000
Portugal.....	18,000	162,000
Argentina Republic.....	2,951,000	4,016,000
Paraguay.....	93,000	
Chile.....	86,000	223,000
Cuba.....	93,000	108,000
Other countries.....	4,000	94,000
Total.....	19,512,000	29,320,000

Navigation.—In 1897 there were 1,126 vessels, of 1,904,626 tons, entered and 1,024, of 1,796,529 tons, cleared at Montevideo, besides 2,439 coasting vessels, of 621,406 tons, entered and 2,447, of 621,244 tons, cleared. The mercantile navy, in 1898, numbered 23 steamers, of 7,654 tons, and 56 sailing vessels, of 13,697 tons.

Communications.—The railroads in operation in 1897 had a length of 1,010 miles. The telegraph mileage was 3,400 miles, besides 994 miles of railroad telegraphs. The number of messages in 1896 was 342,800. The post office in 1896 carried 10,512,887 internal and 6,642,842 foreign letters, etc.; receipts were 1,424,004 francs, and expenses 1,604,411 francs.

The Army and Navy.—The permanent army in 1898 consisted of 4 battalions of rifles, 4 regiments of cavalry, 1 regiment of field artillery, and 1 regiment of foot artillery; numbering in all about 310 officers and 3,170 men, besides 3,200 police troops. The national guard is about 20,000 strong. The regular infantry is armed with Mauser rifles. The

naval force consists of 3 gunboats and a steamer, manned by 22 officers and 162 sailors.

Coup d'État.—In the beginning of January the Government assembled the national guard in the capital preparatory to taking decisive measures against the Opposition in the Chambers, which threatened to restore the former *régime* of the Colorados, led by ex-President Julis Herrera y Obes, who still formed a large majority of the Chambers, the members of which were practically nominated by the late President Borda in 1896. As the election of the President rests with the Chambers, Dr. Herrera or some other violent Colorado was certain to replace Señor Cuestas at the end of his term in February unless some extra constitutional course was taken to prevent it. Señor Cuestas, who was himself a member of the Colorado party, on assuming the presidency after the assassination of Borda on Aug. 25, 1897, had made peace with the Blanco insurgents and laid down a policy of retrenchment and reform that made him a formidable rival of Herrera, who therefore attacked him fiercely in the Legislature and called upon him to resign. An alleged plot for his deposition and an attempt upon his life only rendered him more popular. On Jan. 9 President Cuestas proclaimed a dictatorship after having many officers arrested on suspicion of being engaged in a military plot. Disturbances occurred, in consequence of which he declared the Chambers dissolved on Feb. 10, proclaimed a provisional Government, and nominated a Council of State of 88 members representing all parties. This Junta appointed Señor Cuestas provisional Governor and Señor Maceachen Vice-Governor until after the popular elections to be held in November. The majority in the Legislature had put forward as candidate for the presidency a very old man, Dr. Tomas Gomensoro, who was a puppet of Dr. Herrera. All three parties in the republic requested acting President Cuestas to suppress the Chambers, and thus prevent the restoration of the old system of corruption and the probable revival of the civil war. He deferred action, hoping that the majority would succumb on seeing the hopelessness of resistance, until the last moment. But on Feb. 10 it became imperative to strike, for on that day the extraordinary session of the Legislature ended. Four days later the Chambers were to reconvene for the ordinary session, the first act of which would have been to elect a new president of the Senate, superseding Señor Cuestas as Vice-President and acting President of the republic preparatory to the election of a new President on March 1. As he had secured the support of the chief officers of the garrison and the volunteers as well as that of the principal citizens, the Legislature bowed to the state stroke without even formulating a protest.

The provisional Governor announced that the public revenue, administered with economy, was sufficient for all requirements of the state, and promised to publish a genuine budget, something not known for many years. An excellent wheat crop and an abundant wool clip, both of which realized good prices, were favoring circumstances for the Provisional Government.

Military Revolt.—Although at the time of the *coup d'état* President Cuestas had removed all inimical regimental officers and departmental prefects he knew of, Dr. Julio Herrera still had a following in the army as well as in the country. Three generals named Casimiro Garcia, Ricardo Estevan, and Santos Arribio planned a revolt and placed themselves at the head of two artillery regiments which on July 4 seized the arsenal in Montevideo and began fighting in the streets with the other regiments of the garrison, all of which were loyal to President Cuestas, who was supported by the

Blancos and the people generally. A state of siege was declared and the national guard called out. After two days of fighting, in which 60 persons were killed and 150 wounded, the revolutionists capitulated on condition of an amnesty being granted. Many of the higher officers were implicated in the conspiracy. The day after the surrender the ringleaders and their active accomplices were deported to Buenos Ayres, and subsequently a large number of military officers were degraded for signing a manifesto justifying the attempted revolution and accusing the Government of suppressing the liberty of the press and committing various acts of oppression. Several persons were arrested on July 20 for plotting against the provisional President. Later the exiled generals endeavored to raise a force for the invasion of the frontier from Argentine and Brazilian territory. In August the Cabinet was reconstructed, Dr. Mendizharzu assuming the Ministry of Foreign Affairs in place of Dr. Saltraia, while Gen. Nicomedes Castro succeeded Gen. Gregorio Castro as Minister of War. The young man who shot President Idarte Borda was tried a year after the deed was committed, and though sentenced to thirteen years' imprisonment, he was applauded by the public as a hero. The case was appealed, and a second jury absolved him from guilt because he acted under the influence of political effervescence. An invasion of rebels from Brazil in November was easily defeated by troops sent to the frontier.

UTAH, a Western State, admitted to the Union Jan. 4, 1896; area, 84,970 square miles. The population in 1890 was 207,905; the estimated population in 1895 was 247,324. Capital, Salt Lake City.

Government.—The following were the State officers during the year: Governor, Heber M. Wells; Secretary of State, James T. Hammond; Treasurer, James Chipman; Auditor, Morgan Richards, Jr.; Attorney-General, A. C. Bishop; Superintendent of Public Instruction, John R. Park—all Republicans; Adjutant General, John Q. Cannon; Coal-Mine Inspector, Gomer Thomas; Surveyor General, J. B. Blair; State Engineer, Willard Young; Fish and Game Warden, John Sharp; Regents of University, Rebecca E. Little, T. R. Cutler, James Sharp; Chief Justice of the Supreme Court, George W. Barch; Clerk, L. P. Palmer; State Bank Examiner, Robert R. Anderson; State Board of Medical Examiners, E. S. Wright, John F. Critchlow.

Finances.—The State Treasurer reports that for the two years ending Dec. 31, 1898, the money received into the treasury from all sources was \$2,025,409.10; balance on hand Dec. 31, 1896, \$420,950.38; total, \$2,446,359.48. The amount received from county taxes was \$1,601,543.08; from sale of State bonds, \$150,000; from sale of State lands, \$97,252.59; from sale of State school lands, \$47,517.15. The disbursements for the same period were \$1,961,343.90, leaving a balance on Jan. 1, 1899, of \$485,015.58. The amount paid on State district school account was \$623,781.08; for the Agricultural College, \$47,000; State land account, \$143,787.06; State school lands, \$9,197; amount of State bonds redeemed, \$150,000. The report of the State Auditor shows the balance in treasury Dec. 31, 1896, \$485,031.54; due from taxes for 1896, \$135,315.09; due from taxes prior to 1896, \$18,000; total resources, \$1,342,032.53. The liabilities Jan. 1, 1898, were: Bonded indebtedness, \$900,000; outstanding warrants, \$32,085.73; balance in favor of State school fund, \$248,061.48; due various land funds, \$61,855.38; total liabilities from all sources, \$1,342,032.53.

The total bonded indebtedness of the State is given as \$900,000, of which \$300,000, issued in 1890

at 5 per cent., is payable in 1910; \$250,000, issued in 1892 at 5 per cent., payable in 1912; \$200,000, issued in 1896 at 4 per cent., payable in 1916; and \$150,000, issued in 1898 at 3½ per cent., payable in 1918.

Valuation.—The Auditor shows that the property assessed for taxation in the respective counties of Utah by the county assessors and State Board of Equalization for 1898 amounted to \$100,241,331, as against \$102,435,714 for 1897. The State general-fund tax of 4½ mills on the dollar and the State school levy of 3 mills will yield \$751,135.31. The total amount of assessment on railroads, telephone, telegraph, and car companies, as reported, was \$11,464,592, against \$12,932,547 last year. Sheep were assessed at \$1.50 a head in 1897 and at \$2 in 1898, while cattle were assessed at \$10 both years.

Banks.—The total resources of the 11 national banks of Utah on Oct. 27 were \$7,337,955; loans and discounts, \$2,734,275; reserve, \$1,886,271; gold holdings, \$658,770; deposits, \$4,068,805.

Railroads.—On Aug. 21 articles of incorporation of the Utah and Pacific Railroad Company, with a capital of \$825,000, were filed with the Secretary of State, and the railroad from the Nevada terminus to Los Angeles, about 200 miles, is being built as rapidly as possible. The Ogden Short Line Railroad, which was sold in 1897 under foreclosure, has been absorbed by the Union Pacific; though the headquarters of the Short Line will still remain in Salt Lake and the road will continue to be operated practically on an independent basis. The year has been one of unprecedented prosperity in railroad matters in Utah. Though there has been no increase of mileage in the Rio Grande Western, yet the whole system has been greatly improved. In the year a bridge was built at Lamb's Cañon on the Park City line, additional machine shops were constructed, and handsome depots erected.

Education.—The business department of the Latter-Day Saints' College has grown within three years from 36 students and 1 teacher in one room to 240 students with a faculty of 9 instructors in ample quarters in the Templeton. A new normal school building has been erected at Cedar City, and equipped with every modern sanitary device. A tract of 15 acres surrounds the structure, and both building and grounds are the gift to the State by the people of Iron County. Already 94 pupils have been enrolled. The State district school tax fund in the treasury on March 31 was \$44,962.07, which gave 54 cents *per capita* to the 81,812 children of school age in the State. The Fort Hall Indian School has had a very large attendance, there being 100 boys and 80 girls. The number of books in the State law library was 8,219.

Agricultural College.—The workshops have been moved from the main building, as it was feared that the constant jarring of the machinery might weaken the walls. The new structure cost \$7,560 and contains a chemical laboratory. A line of poultry experiments required suitable equipment at a cost of \$1,000. The running expenses, salaries, etc., necessitate an appropriation of about \$1,000 a month. An appropriation of \$42,305 is asked for the coming two years.

Industrial School.—During the biennial period the title deeds to the new site of the State Industrial School at Ogden were secured and a tract of 18½ acres was purchased for farming. The grounds have been fenced, walks and drives laid out, a sewer put in, and a complete water-pipe system constructed. The total number of inmates reported since the opening of the new school, Oct. 31 1898, was 226, of whom 196 were boys and 30 girls. The number of boys in the school on Dec. 31, was 24, with 1 girl. The requirements for the next biennial

period are summarized as follows: Maintenance, \$1,000 per month; manual training, \$6,000; new buildings, etc., \$12,000; total, \$42,000.

Deaf, Dumb, and Blind.—During the past two years there have been 108 pupils in the school, of whom 90 were deaf and dumb and 18 blind. Of this number, 17 pupils came from Idaho and 1 from Wyoming, and for each of these non-resident pupils the school received \$250 a year. There were 5 graduates—4 boys and 1 girl; 2 others are working at the carpenters' trade taught them in the school.

Insane Asylum.—The number of patients confined in the asylum as reported was 276, of whom 146 were males and 130 females. The cash on hand May 1, was \$9,086.16. On Aug. 31 there were 284 patients; admitted during the month, 6; total number under treatment, 292; total number discharged, 7; cash on hand Sept. 1, \$675.11; received during the month, \$2,040; disbursed during the month, \$2,320.34; cash on hand Dec. 31, \$491.50. The actual expenses of the biennial term, ending Dec. 31, 1898, was \$79,831.78, and \$22,016.68 of the amount appropriated by the Legislature has not been drawn.

State Prison.—A pipe line 9,300 feet long, with a reservoir of 80,000 gallons capacity, now brings pure water to the prison. The sewage is conveyed away by a flume 1,200 feet long, and is used for fertilizing. During the biennial period 3,753 saddle cinches and 7,601 dozen pairs of knit socks were made by the prisoners, besides all the clothing of prisoners and insane patients. The cash receipts, besides State appropriations, were \$16,597.12, and the net profits \$2,987.84. On Dec. 31 there were 171 prisoners, at a net cost of 89 cents *per capita*. The total appropriations asked for by the Board of Corrections for the ensuing two years are \$658,47—for maintenance, \$52,942; for gratuities to discharged convicts, \$2,000; for alterations, etc., \$10,905.

State Board of Health.—The new State Board of Health was organized March 10, 1898, with rules and regulations for the inspection of cattle and their detention in quarantine as follows:

"No animals driven or shipped from infected districts within the quarantine lines defined by the United States Department of Agriculture shall enter the State of Utah unless they shall first have been inspected at the points designated by the State Board of Health, by an inspector of the State of Utah, and found to be free from any contagious or infectious disease or fever ticks; provided, that cattle may be shipped through the State on the condition that if found to be infected with splenetic or Texas fever, they must be placed in quarantine pens when unloaded for feeding and watering.

"Inspectors having inspected animals from the quarantine district prescribed, and having found the said animals free from all contagious or infectious diseases and fever ticks, shall issue a certificate of health.

"All cattle offered for shipment without a certificate of health from the said inspector shall be regarded as infected, and must follow the rules and regulations hereinbefore stated.

"The expense of inspection, as herein provided, shall be defrayed by the owner or owners of the animals inspected."

State Land Board.—The first actual sale of agricultural land in Salt Lake County by the Land Board consisted of 1,960 acres for the sum of \$5,537, about \$2.83 an acre. Nearly all the purchasers paid one tenth down and the balance in 10 annual payments with 5 per cent. interest. There were 892 applications filed, with a total acreage of school sections of 58,356; value of improvements, \$101,599; value of land, \$248,379. The total

school lands vested in the State was reported to be 1,439,342 acres; number of acres sold, 1,642; left vested in the State, 1,437,699. During the year 78 applications to lease grazing land were received, representing 109,417 acres. Eight leases, representing 19,433.12 acres, were made at an appraised value of \$1,963, the resulting rentals amounting to \$255.30. The expenses incurred in 1897 were \$11,639.21, of which \$4,768.91 was for selecting and appraising lands and \$6,870.30 for clerks, office supplies, etc.

Agricultural Products.—The amount of wheat reported was 3,190,740 bushels, value \$2,169,703; oats, 838,355 bushels, value \$276,657; barley, 183,520 bushels, value \$82,584; rye, 42,696 bushels, value \$29,777; potatoes, 783,364 bushels, value \$235,009; cotton, 155 acres, value \$4,305.

Live Stock.—The annual report gives the number of milch cows as 56,698, value \$1,017,729; other cattle 358,293, value \$4,933,162; sheep 1,998,441, value \$3,036,830; hogs 53,790, value \$293,382; horses 71,178, value \$1,207,941; mules 1,648, value \$40,264.

Sericulture.—A new industry, sericulture, is fully established in the State, and a law passed by the Legislature places a bounty of 25 cents a pound on all cocoons raised. The bill also provides for the appointment of a Silk Commission to examine cocoons for which bounty is claimed, to furnish eggs to the people, provide a market for the silk, and furnish information on all branches of silk culture. The commission has organized classes in sericulture throughout the State. Most of the silk produced is used by families in the State for knitting, sewing, etc. The amount paid for bounties this year was about \$500.

Mineral Products.—Early in the spring the Intermountain Salt Company's refinery burned to the ground, and in May this company was consolidated with the Inland Crystal Salt Company. As the Intermountain Salt Company had a lease on the plant of the Nebo Salt Manufacturing Company of Nephi, the salt industry is now confined practically to the operations of the Inland Crystal Company. At the close of 1897 there were 106,000 tons of salt in stock, and in 1898 28,000 tons of all grades were marketed, as follows: Artificial rock refined salt, 10,000 tons at \$10 a ton; crude salt for stock uses, 3,000 tons at \$3 a ton; crude salt for other purposes, 11,500 tons at 75 cents a ton; artificial rock salt, 400 tons at \$8.50 a ton; mined rock salt, 1,000 tons at \$1 to \$1.50 a ton; and sulphurized salt, 2,000 tons at \$8 a ton. The sulphurized salt is a new article of manufacture, and is in great demand for medicinal stock purposes. The value of the 28,000 tons marketed was \$136,000, and the cost of manufacture, \$42,000.

In 1898 52,000 tons of lime rock, for the use of smelters as flux, was marketed—about the same amount as in 1897.

The total amount of pumice produced during the year was only about 144 tons, a marked decrease from 1897. The output of sulphur was 337 tons in 1898, against 1,095 tons in 1897.

The lithograph stone, a new building stone, has come into notice within the past half year, and 112 tons have been marketed.

The yield of gold, lead, and copper was greater than in 1897. The yield of gold in Utah since Jan. 1, 1898, is computed at 94,900 ounces; of silver, 7,544,722 ounces; of lead, 90,346,100 pounds; and of copper, 5,333,638 pounds. The gold yield of the De Lamar Mercur mine, not included in the above, was 11,200 ounces. With the money value of gold at \$20.67 an ounce, of silver at 60 cents an ounce, of copper at 11½ cents a pound, and of lead at \$3.75 per 100 pounds, the total value of the mining pro-

duct is \$10,723,067.32. A little more than half of the ore mined is smelted in the State.

The cyaniding yield of gold is estimated at 60,750 ounces, and of silver 140,000 ounces.

Irrigation.—The Horseshoe Bend reservoir covers 940 acres, and holds water sufficient to flood 10,000 acres to the depth of one foot, with dam, headgates, canals, and a conduit for the flowing out of the water when the reservoir is full. The old river bed turns from north to east and back again, making a horseshoe bend, which, with the dam at the lower end, forms the reservoir.

Lafayette Day.—By the recommendation of Gov. Wells, Oct. 19, the day of the fall of Yorktown, was set apart as "Lafayette Day" in Utah. A portion of the day was devoted by the schools of the State to memorial exercises and collecting contributions to the monument fund, in accordance with the plan proposed by the commissioner general to the Paris Exposition, and sanctioned by the Utah Superintendent of Public Instruction.

Disasters.—Park City was devastated by fire in June, and 75 business buildings and 100 homes were in ruins, at a loss of more than \$600,000, with a small amount of insurance. The burned district covered about 30 acres, peopled by 500 persons who escaped with nothing but what was on their backs.

A fierce windstorm swept Ogden Dec. 9, in which a church was blown down, houses were lifted from their foundations, and much other damage was done, but without loss of life.

The Mormon Church.—Lorenzo Snow, eighty-four years of age, was chosen fifth president of the Church on Sept. 15, to succeed Wilford Woodruff, fourth president, who died in San Francisco, Cal., at the age of ninety-two years. George Q. Cannon was elected first counselor, and Joseph F. Smith second.

Utah in the Spanish War.—Gov. Wells, in his annual message, says: "It is a matter of pride to every citizen that the response of Utah to the President's call for volunteers to serve in the army of the United States in the war with Spain was at once spontaneous, enthusiastic, and complete." Utah's quota was one troop of cavalry, special mounted service, and two batteries of artillery; to which was added one troop of cavalry known as First Utah United States Volunteer Troop Cavalry, with officers commissioned by the Governor. Forty men were recruited for the regiment of United States Volunteer Engineers, commanded by Col. Willard Young, with Elias S. Kimball as chaplain and Dr. F. A. Meacham surgeon—all citizens of Utah. Captains Young and Grant were brevetted majors by the President, for gallantry at the battle of Manila.

Political.—The Republican State Convention assembled in Salt Lake City, Sept. 9, and nominated Hon. Alma Eldredge, of Coalville, for Representative in Congress and Charles S. Zane, of Salt Lake City, for Justice of the Supreme Court. The platform congratulates the country "upon the glo-

rious results accomplished in the war with Spain, the magnificent bravery of our soldiers, the grand and able management of the war by the Administration, and the successful and honorable peace. We indorse and applaud the Administration of President McKinley and the policies ably proposed and accomplished by him. We especially honor the brave admiral and the gallant fleet and army who have won for us the capital of the Philippines, and we believe in extending our commerce into that part of the world. While we insist in maintaining the Monroe doctrine in all its integrity, we believe it consistent with it and safe for us to hold and maintain possession for commercial purposes of other lands in any part of the world; and we believe in protecting our flag wherever it has been successfully raised." The platform demands "protection, bimetalism, and reciprocity," as Utah has grown rich through these principles; it favors the "independent free coinage of silver at the ratio of 16 to 1"; it recognizes "the uplifting tendency and prestige that women are giving to the commonwealth through the enlarged opportunities of political equality," and approves the efforts of the Utah women to establish "silk culture in the interests of labor," and commends "the women of the State upon the patriotic loyalty they have shown in cheerfully giving their sons, daughters, husbands, and brothers to fight the battles of our country in the cause of humanity. It says "the sugar industry has been established in this State under the wise principles of the Republican party," and the product in 1898 will reach nearly \$1,000,000.

The State convention of the Democratic party met in Salt Lake City, Sept. 14, and nominated Hon. Brigham H. Roberts, of Salt Lake City, as candidate for Representative in Congress, and Hon. R. N. Baskin for Justice of the Supreme Court. The platform reaffirms the Chicago platform of 1896, making the "free and unlimited coinage of silver at the rate of 16 to 1 the all-important principle"; it says "the war with Spain was necessary and inevitable if the nation was to have any regard for the protection of its citizens"; that "through the skill, willingness, sacrifice, and heroism of the army of the United States the war has been waged to a triumphant and glorious conclusion"; that "those guilty of any neglect of our soldiers must be held to a rigid accountability"; that "to the officers and men who volunteered from the State of Utah, and who have, wherever an opportunity has been afforded, as in the battle of Manila, so bravely upheld the honor of our State, we extend all praise, and fully assure them that the universal feeling is that the future has no reward too good for them."

At the election in November Hon. Brigham H. Roberts was elected to Congress, and Hon. R. N. Baskin Justice of the Supreme Court. The Legislature chosen at the same time stands politically as follows: Republicans, Senate 2, House 15; Democrats, Senate 10, House 26; Cannon-Fusion, 4.

V

VENEZUELA, a republic in South America. The Congress consists of a Senate of 27 members, 3 from each State, and a House of Representatives numbering 63 members, elected by the votes of all adult male citizens for four years, the same term as in the Senate. The President and the Council of Government are likewise elected for four years. The President for the term ending March 4, 1898, was Gen. Joaquin Crespo, the victor in the civil war of

1892. The Council of Government consisted in the beginning of 1898 of the following members: Manuel Guzman Alvares, President; Dr. F. Acevedo, Dr. H. Rivero, Gen. Custodio Milano, Luis Zagarazu, José G. Riera, Tomas J. Guillen, Julio Montenegro, and Gen. Luis Ma Leon. The composition of the President's Cabinet was as follows: Interior, Dr. Heriberto Gordan; Foreign Affairs, Dr. Ezequiel Rojas; War and Marine, Gen. J. R. Ricart;

Treasury, Gen. Jorge Uzlar; Public Instruction, Federigo R. Chirinos; Fomento, Dr. A. Riera; Public Works, Ernesto Garcia.

Area and Population.—The area is estimated at 593,943 square miles. The population in 1894 was 2,444,816, all of whom were Catholics, except 3,515 Protestants, 411 Jews, and 5,906 others. There were 376,156 persons engaged in agriculture, 135,688 in industry, 8,341 in navigation, 1,052 in mining, 42,816 in trade, 3,675 in public office, 528 in religion, 6,088 in military service, 9,311 in liberal professions, 211,143 in domestic service, and 1,650,068 without profession. The number of immigrants for ten years ending in 1894 was 5,548.

Finances.—The budget for 1899 makes the total revenue 34,542,000 bolivars, or francs, of which 25,000,000 bolivars come from customs, 5,292,000 bolivars from internal duties, and 4,250,000 bolivars from state property. The expenditures are estimated at the same sum, of which 7,675,276 bolivars are for the interior, 944,730 bolivars for foreign affairs, 11,381,854 bolivars for the public debt, 122,720 bolivars for agriculture, industry, and commerce, 1,742,413 bolivars for posts and telegraphs, 2,693,682 bolivars for public instruction, 1,195,392 bolivars for public works, 4,214,665 bolivars for finance, and 4,571,268 bolivars for war and marine. The amount of the public debt on June 30, 1898, was 201,419,203 bolivars; of which 63,439,430 bolivars represent the internal debt, consolidated at 6 per cent. in 1896; 49,250,000 bolivars, a new loan raised in that year at 5 per cent.; and 66,614,550, a 3-per-cent. external debt.

Political Affairs.—On March 4, 1898, Gen. Ignacio Andrade, the President-elect, succeeded Gen. Joaquin Crespo. The new President appointed the following Cabinet: Interior, Gen. Zollo Bello Rodriguez; Foreign Affairs, Gen. Juan Calcaño Mathieu; War and Marine, Gen. A. Fernandez; Treasury, M. A. Matos; Public Credit, C. V. Echeverria; Public Instruction, Dr. B. Mosquera; Posts and Telegraphs, Dr. J. L. Arismendi; Agriculture, Industry, and Commerce, Gen. N. Rolande; Public Works, Dr. Alberto R. Smith. Gen. Hernandez started a rebellion in the province of Zamora, in fighting which ex-President Crespo lost his life in April, but the rising came to an end when the revolutionist leader was taken prisoner on June 12. The Venezuelan and the British governments exchanged their cases relative to the Guiana boundary arbitration on March 18, and subsequently forwarded the voluminous documents to Prof. Martens, of St. Petersburg, the president of the Court of Arbitration, which is expected to render its decision in the course of 1899. An English syndicate has bargained for the monopoly of rubber exploitation in the vast Amazon territory of Venezuela. In the beginning of June the Government concluded an arrangement with an Italian colonization society, which engages to import 1,000 Italian families a year for fifteen years and settle them on ceded lands, supplying them with buildings and implements; while the Government grants exemption from customs duties and taxation and pays 18 bolivars a year for each immigrant. The company undertakes furthermore to establish a steamer service between Italy and Venezuela and to organize an agricultural bank with a capital of 20,000,000 bolivars.

VERMONT, a New England State, admitted to the Union March 4, 1791; area, 9,565 square miles. The population, according to each decennial census, was 154,465 in 1800; 217,895 in 1810; 235,966 in 1820; 280,652 in 1830; 281,948 in 1840; 314,120 in 1850; 315,098 in 1860; 350,551 in 1870; 332,286 in 1880, and 332,422 in 1890. Capital, Montpelier.

Government.—The State officers in 1898 were: Governor, Josiah Grout, until October, when he was

succeeded by Edward C. Smith; Lieutenant Governor, Henry C. Bates; Secretary of State, Frederick A. Howland; Treasurer, John L. Bacon; Auditor, Orion M. Barber; Adjutant General, T. S. Peck; Superintendent of Education, Mason S. Stone; Chief Justice of the Supreme Court, Jonathan Ross; Associate Justices, Loveland Munson, John W. Rowell, R. S. Taft, H. R. Start, L. H. Thompson, James M. Tyler; Clerk, M. E. Smilie. All the State officers are Republicans.

Finances.—The total receipts for the year, plus \$67,113.80 cash on hand from the previous year, were \$1,390,030.44. From corporations the State received \$387,724.22; from towns' account of State school tax of 1898, \$81,682.54; balance of 1897, \$4,320.44; from towns' account of State highway tax of 1898, \$81,682.54; balance of 1897, \$4,320.44. There was received from temporary loans, act of 1896, \$275,000; from the Superintendent of the State Prison, \$30,065.04; from the Agricultural College fund, \$8,130; from foreign insurance companies, fees and licenses, \$6,824; from the United States Government, for Soldiers' Home, \$5,943.75; for endowment of Agricultural College, \$23,000; from Judges of Probates' fees, \$15,012; and from county clerks, judgments and balances, \$49,669.95. The most important items on the debit side of the Treasurer's report are these: Auditor's orders, \$652,769.61; distribution of school tax of 1897, \$87,127.40; distribution of highway tax of 1897, \$87,348.61; University of Vermont and State Agricultural College, account of the United States Endowment fund of 1890, \$23,000; temporary loans, act of 1896, paid \$280,000, act of 1894, paid \$70,000. The resources amounted to \$537,619.59, the liabilities to \$292,113.27. Also the State pays \$7 a month to soldiers enlisted for the war with Spain, making about \$7,000 monthly.

The amount available for the fiscal year from July 1, 1898, to June 30, 1899, was \$245,506.32. Loan on account of the State Asylum appropriation, \$50,000; Agricultural College fund, \$135,500.

Banks.—The total resources of the savings banks and trust companies in the State in 1898 were \$36,928,962.04, this being a net increase of \$1,402,941.42 over 1887. There are 23 savings banks and institutions in Vermont, and 18 trust companies. There were this year 108,511 depositors, an increase of 2,366 over 1897.

Militia.—On May 16, 1898, the National Guard consisted of 68 officers and 680 enlisted men, organized into a three-battalion regiment of infantry, one 4-gun battery of light artillery, and the Norwich cadets, officially the section of artillery. In response to President McKinley's call for troops in April, Vermont, whose quota was 627, raised a full regiment of 1,030, and therefore when the second call was made the State was exempted.

Prisons.—The State Prison, at Windsor, reports 277 inmates from July 1, 1896, to June 30, 1898. The total income was \$54,188.68, an increase over the previous two years due to the price paid for convict labor, having been raised from 50 cents a



EDWARD CURTIS SMITH,
GOVERNOR OF VERMONT.

day to 75 cents. The income exceeded the expenses by \$3,922.94.

From June 30, 1896, to June 30, 1898, there were 722 commitments to the House of Correction in Rutland, 112 inmates being already in that institution. The daily average, 145, was an increase of 29 per cent. over the previous term. The Industrial School received 1,252 from June, 1896, to June, 1898, 129 being girls. In July, 1898, 130 boys and 24 girls were in the school. The expense *per capita* to the State was \$188.30.

Insane Asylum.—The trustees in their report say: "An appropriation of \$22,000 was made by the last General Assembly for the construction of a pathological laboratory, a cold-storage plant, a new ventilating system for the south wing of the asylum, and other improvements. The expenditures have exceeded the sum appropriated by \$4,497.58. Our buildings were originally erected to hold 450 patients. Since our last report the annex (Shepley Cottage) has been completed, and accommodates 25 additional patients. The average number of patients during the biennial period has exceeded 500; so that the asylum has been to that extent overcrowded. We believe the biennial period which has just closed has been one of remarkable success. Many reforms have been introduced in the management; physical restraint has been practically abolished; the dietetics of the institution have been greatly improved; the danger of fire has been materially lessened by the new water system; the grounds have been improved by grading and the planting of shrubbery; the attendants secured have been men and women of greater intelligence and better training than formerly.

"Feeling the need of more land, in the spring of 1897 we leased the farm of James Somerville for two years at an annual rent of \$1,000, and at the same time took a bond for the purchase of the property for \$8,000, the rental in excess of the interest of the purchase money to be deducted from the purchase price, provided the State consummates the terms of the bond."

The superintendent says: "During the biennial period there were 18 readmissions. Of these 2 were admitted and discharged twice; thus the total number of 715 cases treated represented 702 persons. Of the total number of patients admitted within the period 63 were regarded as curable, 3 were not insane, and 138 were chronic or incurable. Of the 63 curable patients 25 have recovered, and 38 are still under treatment with every prospect of ultimate recovery. Notwithstanding the general belief in the incurability of insanity, facts incontestably prove that the majority of the insane *do* recover if proper treatment is early instituted.

"Of those discharged within the same period 55 recovered and 58 were improved. During the same period there were 74 deaths—49 males and 25 females. The fatality, based on the total number under treatment, is not great—10.34 per cent.—especially when it is remembered that soon after assuming charge in January, 1897, a severe epidemic of *la grippe* attacked patients and attendants alike.

"By reference to the financial exhibit it will be seen that there was chargeable to this biennial period \$14,688.66 stock on hand June 30, 1896; which, however, on inventory, Jan. 1, 1897, had diminished to \$3,350.99. In spite of this fact and extensive improvements and repairs, the weekly *per capita* cost for the period has been \$3.32."

Brattleboro Retreat.—The account of receipts and expenditures for the two years ending June 30, 1898, showed a deficit of \$2,566.95. The average number of patients treated was 188, 108 being men and 80 women. The total number received since July, 1896, was 161, and 75 of these were women.

Butter-and-Cheese Association.—The Vermont Butter and Cheese Makers' Association was organized in January, and held its first meeting in March. J. J. Jackson, of East Montpelier, was chosen president, and F. H. Bickford, of Bradford, secretary. At the March meeting there were addresses and discussions on subjects connected with the dairy business, and nearly a hundred samples of butter and cheese were exhibited. Many premiums and prizes, ranging from \$5 to \$25, were awarded.

Dewey Day.—On May 9 Montpelier, Admiral Dewey's native city, celebrated his victory at Manila Bay. Almost the whole town was decorated, and it is estimated that 10,000 persons from out of town came to witness the parade in the evening. A great meeting was held in Armory Hall. Mayor Senter, the chairman, said in opening the meeting: "Fellow-citizens: We are met to-day to celebrate one of the grandest victories in naval warfare. The people of Commodore Dewey's native town have met to-day to honor his achievements. Gen. Sedgewick said at Gettysburg, 'Put the Vermonters at the front, and keep the column well closed up.' We have put a Vermonter at the front, and if Sampson keeps the column well closed up we shall hear something before this meeting is closed that will make our hearts rejoice. I hope the speakers this afternoon will be brief as possible, and that their speeches will be as full of fire and fight as was Commodore Dewey a week ago last Sunday morning at Manila."

Dental Examiners.—The Board of Dental Examiners in their biennial report submitted in August, 1898, say that in the two years they granted 16 licenses for the practice of dentistry. Of those receiving these licenses 13 were graduates of dental colleges, and 3 were licensed upon examination. Two applicants failed to pass. The receipts for examinations and licenses amounted to \$90; the expenses of the board were \$80. The president of the board is Dr. S. D. Hodge, of Burlington.

Legislative Session.—Gov. Grout called a special session of the Legislature to meet on May 5, for the purpose of providing troops for the war with Spain, in accordance with the call of the President. In his message the Governor said:

"This State tendered fulfillment of the President's call upon it for troops to assist in the war against Spain the 23d day of last month, and has since been awaiting the pleasure of the War Department and co-operating with its officials.

"Vermont's quota for immediate service is 1 regiment of 1,008 enlisted men and officers; and you are asked to provide equipment for this regiment now offered the service, and also to place the military quota of the State at the disposal of the Government. Your attention is invited to the status of the militia when the present regiment of the Guard enters the United States service, and the desirability of a continuous military organization.

"At the special session in April, 1861, called to assist in preparing the troops from this State for the civil war, a State compensation of \$7 a month, extra to the United States pay, was granted each enlisted man; and you will be expected to regard the brave men now entering an unselfish war, waged in behalf of freedom and humanity, with at least as patriotic a consideration as favored those who went forth a generation since to battle for the integrity of the Union and the perpetuity of the nation.

"The regiment requested by the Secretary of War is about 350 in excess of our quota under the President's call, but it is necessary to furnish it or allow Vermonters to serve in other State organi-

zations; and it was taken for granted that the pride of this distinctive little commonwealth would be correctly anticipated by objecting to any such mixed service; besides, this overplus stands to our credit in case of future calls and places Vermont in this respect also at the head."

The Legislature promptly passed a bill the first section of which reads as follows:

"The commissioned officers, who have volunteered or may hereafter volunteer to serve in the army of the United States during the war between the United States and Spain shall receive, from the date of their mobilization in camp until they are mustered into the service of the United States, the same pay and rations as are received by like officers in the army of the United States, the non-commissioned officers, musicians, artificers, wagoners, and privates, in the army of the United States, and \$7 per month each in addition thereto; and after they shall be mustered into the service of the United States they shall receive, in addition to the compensation paid by the United States, the sum of \$7 per month each as long as he is in the service of the United States under such enlistment contract."

Another section specified that no money provided for in the act should be subject to trustee process.

Eleven other bills were passed at this session, among which were these:

Amending the quadrennial appraisal law.

The alien railway corporation law.

Providing for the re-enlistment of the National Guard at the close of the war.

To fill further quotas of troops.

To enable St. Albans to own an electric plant.

The regular session of the Legislature began Oct. 6; J. G. McCullough was elected President *pro tem.* of the Senate, and Kittredge W. Haskins Speaker of the House. The acts of general interest that were passed included the following:

Concerning the State seal.

Concerning free public libraries.

Exempting certain manufacturing establishments from taxation.

Providing for better administration of public schools.

Continuing the normal schools at Randolph, Johnson, and Castleton till A. D. 1920.

Providing for the conveyance of pupils to and from school.

Relating to evening schools.

Relating to instruction of the deaf, dumb, blind, and idiotic.

Concerning close-jail executions.

Concerning the plea of insanity in criminal cases.

Relating to conveyances and devises of property for religious purposes.

Appointing the following to be the legal holidays: Jan. 1, Feb. 22, May 30, July 4, Aug. 16, first Monday in September, Thanksgiving Day, and Dec. 25. When one of these days falls on Sunday the preceding Saturday is made the holiday. Aug. 16 is to be known as Bennington Battle Day, and the first Monday in September as Labor Day.

Amending the married woman's property act.

Relating to divorcees.

Relating to registration of births, marriages, divorcees, and deaths.

Establishing the Vermont Highway Commission.

Regulating the width of wagon-wheel rims.

Relating to formation of corporations.

Extending the powers of the Railroad Commissioners.

Several acts relating to insurance.

For testing milk and cream.

Regulating the sale of commercial feeding stuffs.

To prevent fraud in the sale of garden seeds.

Providing for payment of expenses of sick soldiers.

Several statutes regulating the taking of fish.

Several statutes relating to game.

Granting bounties on noxious animals.

Raising the age of consent from fourteen to sixteen years.

Relating to cruelty to animals.

Relating to gambling machines.

Forbidding desecration of the national flag.

Establishing a Board of Prison Commissioners.

To prevent pollution of public waters.

Political.—The Republican State Convention met in Montpelier in June. Edward C. Smith was nominated for Governor and Henry C. Bates for Lieutenant Governor. The platform adopted was in part as follows:

"We affirm our loyalty to the cardinal principles of the Republican party as enunciated in the platform of the National Convention at St. Louis in 1896, especially the doctrines of protection and sound money.

"We believe the United States should build and control the Nicaragua Canal.

"We heartily indorse the administration of President McKinley.

"We commend the wisdom of the State administration in providing for a full regiment of volunteers, thus anticipating the second call for troops and preserving the unity and individuality of Vermont soldiers in the war. We also approve the action of the Legislature in voting the State pay to those of our citizens who do our work and maintain our honor in this contest at the hazard of their lives."

Burlington was the place selected for the Democratic Convention, which was held in the middle of July, and nominated for Governor J. W. Moloney, of Rutland; Lieutenant Governor, A. Allen Olmstead, of Newbury. The platform reaffirmed the Chicago platform, protested against the annexation of Hawaii, approved the money of the Constitution, declared against the prohibitory law, asked for representation on all commissions and boards, and approved of William J. Bryan.

The representatives of the Prohibition party met in Burlington in June, nominating for Governor C. W. Wyman, of Brattleboro; for Lieutenant Governor, C. B. Wilson, of Bradford.

At the election the Republican candidate for Governor received 38,555 votes; the Democratic, 14,686; the Prohibition, 1,075. The State Senate has 30 members—all Republicans; the House, 201 Republicans, 42 Democrats, 1 Prohibitionist, and 1 Independent.

VIRGINIA, a Southern State, one of the original thirteen, ratified the Constitution June 25, 1788; area, 42,450 square miles. The population, according to each decennial census, was 747,610 in 1790; 880,200 in 1800; 974,600 in 1810; 1,065,116 in 1820; 1,211,405 in 1830; 1,239,797 in 1840; 1,421,661 in 1850; 1,596,318 in 1860; 1,225,163 in 1870; 1,512,565 in 1880; and 1,655,980 in 1890. Capital, Richmond.

Government.—The following were the State officers in 1898: Governor, J. Hoge Tyler; Lieutenant Governor, Edward Echols; Secretary of State, James T. Lawless; Attorney-General, A. J. Montague; First Auditor, Morton Marye; Second Auditor, Josiah Ryland; Treasurer, A. W. Harmon; Adjutant General, W. Nalle; Superintendent of Free Schools, J. W. Sutthall; Commissioner of Agriculture, Thomas Whitehead; Register of the Land Office, J. W. Richardson; President of the Supreme Court of Appeals, James Keith; Justices, John W. Riely, John A. Buchanan, George M. Harrison, and Richard H. Cardwell; Clerk, G. K. Taylor. All are Democrats.

Finances.—The receipts for the year 1897-'98 were \$3,230,277.40, an increase of \$99,022.05 over those of 1896-'97. The expenditures were \$3,200,908.72, an increase of \$45,445.61. The cost of criminal expenses was reduced from \$302,825.69 in 1896-'97 to \$236,881.73 in 1897-'98; government officers, who received \$120,525.70 the former year, were paid \$117,404.22. The Oyster fund receipts rose from \$29,984.90 to \$36,766.73, and the disbursements of that fund fell from \$32,511.90 to \$22,355.87. The charter fees were more than doubled, increasing from \$7,823 to \$21,442, the Legislature having raised the requirements for the granting of charters. New items of revenue are from fish-net and crabbers' licenses, this year \$695.30 and \$260.73 respectively.

Education.—The school population is 665,865. During the year 8,562 schools were conducted, and 369,520 pupils enrolled. The total amount expended for the support of the public schools was \$1,832,525, and the approximate value of school property owned by the school districts was \$3,100,000. The State Peabody Summer Normals held in July and August were well attended, and, in the judgment of the State Superintendent, accomplished good results. They were attended by 841 white and 409 colored teachers.

The State school fund, used exclusively for the pay of teachers, was \$962,482. The Literary fund derived from fines and escheats, gave \$193,100.85 to be apportioned. From the gross amount received from those sources are deducted the salaries of county and city superintendents of schools, the expenses of the central office, and the appropriation for summer normal schools.

The Legislature passed an act providing that school text-books with the exception of United States histories should not be changed oftener than once in four years. The State Board of Education adopted a list in July and passed strict regulations in regard to the contracts with publishers, and the introduction of the books. One provides that if any publisher having a book or books on the list attempts to introduce any of his publications not there either directly or indirectly, or by combination with any other publisher, his contract may be declared null and void by the board. It is estimated that the changes effect a saving of 20 per cent. in the cost of books.

The selection of United States histories was intrusted to a committee of the Camp of Confederate Veterans of the State, who were to examine the current histories and reject such as were judged to be unfair to the South and offensive to Southern sentiment. The chairman of the committee resigned because the grand camp did not approve the view expressed in his report that the right of secession had ceased to exist, having been renounced by the South as a result of the war. Following is the passage in question:

"They [the children] should be taught that, overcome by physical power, the Confederate soldier laid down his arms at the end of the war, with a pledge of his honor that he abandoned the cause of secession for all time; that the Confederate soldier has lived up to that pledge ever since the war, with perfect faith and sincerity; and that all descendants of Confederate soldiers must live up to it with the same faith and sincerity for all time."

The report also said: "Your committee had rather see our children taught inaccuracies about the war, but in books written by authors who understood and appreciated the motives of the Confederate soldier, than to be taught perfectly accurate accounts of the battles and sieges, in books whose authors look upon the Confederate soldiers as criminals."

Charities and Corrections.—The appropriations to the State charitable institutions were somewhat reduced this year, and seem to have been inadequate for their proper support, placing the authorities in charge under the necessity of either running into debt or refusing applications for admission. Reports of all are not at hand; but the superintendent of the Central Hospital at Petersburg gives account of the effect of the reduction on his institution. He says that while he was able to report in 1897 that there was not a single legally committed insane negro in the State outside of that hospital, there were, in 1898, 66 such scattered through the counties, 40 of whom were in jails. An appropriation of \$36,000 was asked, but "only \$75,000 was allowed; which amount, in spite of the most rigid economy, was inadequate to provide for more than a daily average number of 852 patients. Applications were received seeking admission for 274 patients, as against 281 for the previous year. Of these 168 were admitted, 15 died in jail, and 35 were released as 'cured.' In many instances patients were brought here from the jails, half naked, ill fed, and otherwise apparently so neglected as to make the inference a fair one that the average jail in Virginia is a discredit to any enlightened community. In this institution we support a patient—that is, clothe, feed, nurse, and give him medical attention—for 25 cents, or a fraction less, a day; while to keep him in jail costs 50 cents a day for board alone, and the jailer is permitted to expend \$30 a year for clothing for each insane person, and the physician is paid 75 cents or more for each professional visit. For the past six months an average of about 50 insane negroes have been supported in the jails at a cost to the State of not less than \$6,350. The same number of patients can be, indeed are, cared for in this hospital for that length of time for \$2,260, a difference of more than \$4,000."

The average cost *per capita* at the Western Hospital is \$117 a year.

From the report of the Penitentiary Board for the year ending Sept. 30, it is learned that 552 prisoners were received and 570 discharged, the whole cost of transportation to and from the prison amounting to \$5,838.54. There were 1,275 in charge Sept. 30, of whom 1,011 men and 65 women were employed by the shoe company. Less than a dozen able-bodied men are unemployed. The excess of discharges over entrances is due to the operation of the conditional-pardon law of this year's Legislature. The receipts were \$130,581.42, of which more than \$125,000 came from the labor of convicts. The expenditures were \$75,507.41, of which \$32,677.80 was for officers and guards and \$24,334.40 for provisions. The prisoners have earned \$20,231.86 by overwork; this goes into the prisoners' fund, from which \$14,290.83 has been paid on prisoners' orders, and \$4,771.75 paid to prisoners on discharge. The institution is overcrowded.

Boys convicted by the courts are sent to the Laurel Reformatory, which was established by private subscription. The State pays 25 cents a day for each boy committed, and \$10 a year for clothing.

Military.—The number in the organized militia at the opening of the war was given as 3,139. The quota for Virginia was 2,913. Under the second call 2 battalions of infantry were required.

The Governor applied to the United States Treasury Department for reimbursement of the \$2,957.81 expended for clothing and shoes for the volunteers. The Comptroller has withheld payment on account of a claim by the United States against Virginia in connection with the Indian trust funds.

Lawlessness.—According to a list of lynchings in the various States, four occurred in Virginia in 1898. A dispatch in December says that for the

first time indictments have been found in the State against lynchers. The grand jury of Patrick County indicted six men for the murder of a half-witted white man, who on Sept. 13 was said to have attempted to assault a young woman. He was arrested, and while the case was in progress he was taken from the officers by a mob and shot to death. His lynchers were men of bad reputation, at least two of them having been in State Prison. The victim of the lynching had escaped from a lunatic asylum. He once had been acquitted of a charge of house-breaking on the ground of insanity.

Richmond.—It is reported that business has been more prosperous in Richmond this year than for many years past. The record of manufacturing establishments shows an increase in the sales over 1897 of \$2,581,350, with greater activity in the iron trade than in any other, and particularly in the building of locomotives for export. There are now 1,142 manufacturing establishments, employing 17,817 hands, with \$16,276,500 capital invested, and the year's sales aggregate \$34,865,725.

The jobbing interests have more capital invested than in 1897 by \$154,500, and their sales exceed by \$1,352,738. The boot and shoe trade increased 34 per cent.

The earnings of the railroads also show an increase, and the bank clearings exceed those of 1897 by \$17,279,645.09. The total resources of the banks amount to \$19,007,987, and including the three trust companies, one of which was formed during the year, aggregate \$20,447,000. This is an increase for the year of \$2,000,000. There was an increase of over \$1,000,000 in deposits. There were 51 failures reported in the year 1897, with total liabilities of \$940,300. In 1898 there were only 35 failures, with total liabilities of only \$148,500. Richmond people paid in taxes to the city \$1,059,421.55; to the State, \$435,331.23; and for licenses, \$16,642.13.

Norfolk.—The shipments of wheat from Norfolk and Portsmouth in 1898 amounted to 1,118,482 bushels, and of corn to 11,847,956 bushels.

Legislative Session.—The session of the General Assembly which began Dec. 1, 1897, ended March 4, 1898. John F. Ryan was Speaker of the House.

Many bills were introduced proposing changes in the election laws and four were passed. They make changes in regard to electoral boards and election judges and other minor matters. A proposed constitutional amendment providing for changing the time of electing local officers from May to November and beginning their term of office in January instead of July, was referred to the next session; and also one repealing the provision that restricts taxation of the oyster industry.

An act passed for the purpose of facilitating the collection of delinquent taxes resulted during the year in some gain to the treasury, but was very unpopular and went by the name of "the landgrabbers' act." It came before the Supreme Court, where it was attacked as unconstitutional, the contention being that the act of Feb. 11, providing the manner of selling unredeemed lands held for the State in the name of the Auditor was repealed by an act of Feb. 24, providing a method of redemption. It was also contended that the act came under the class of those required by the Constitution to be passed by a recorded vote, and since the act was not so passed it was invalid. The court upheld the constitutionality of the law by a decision in December.

The commission appointed to confer with commissioners from other States in regard to uniformity of legislation was continued, and the Legislature adopted the act recommended by the national conference, entitled "a general act relating to negotiable instruments."

The laws in regard to liens, mortgages, and deeds of trust and assignments, and transfers of such claims, and their discharge and form of record, etc., were amended, and the limit of time for outlawry may be extended with some exceptions. Amendments were passed also to the laws governing contracts, negotiable instruments, and power of trustees and executors. An agent conducting mercantile business is to be presumed to have full power to act for his principal unless a written instrument restricting his power is recorded with the county clerk and posted in the place of business.

The codes of civil and criminal procedure were amended by various provisions governing method and details. A married woman may sue in her own name, where she was formerly required to sue in the name of her next friend. Husband and wife may not testify for or against each other as to a contract where one of the parties is incapable of testifying. Failure to make a motion for a new trial where an appeal, writ of error, or supersedeas lies to a higher court is not a waiver of any objection made during trial. Wages of minors are not liable for the debts of their parents. The maximum penalty for attempt to poison was changed from five to eighteen years.

Some amendments were made to the laws on militia. Provision was made for the preparation and preservation of lists and muster rolls of Confederate soldiers.

An amendment changed the standard bushel for oats from 32 to 30 pounds, and that of Irish potatoes from 60 to 56; and fixed that of cotton seed at 32.

Trade-marks and labels must be registered and are protected by law. The use of trading stamps is prohibited.

Provision was made for conditional pardons to Penitentiary convicts. If a minor under sixteen is convicted of a misdemeanor the judge or justice may substitute stripes for fine or imprisonment, in case the parent or guardian consents. The Prison Association can receive only minors under seventeen instead of twenty-one as heretofore, and the court may require payment for support from parent or guardian.

No city, town, or county may impose a privilege tax for the publication of a newspaper.

Railroad and canal companies are required to make reports for purposes of taxation of the amount of property in each county, corporation, and school district.

A general law was passed defining and regulating fraternal beneficiary societies, etc., making them exempt from provisions of insurance laws; they are to file reports with the auditor of public accounts; the law does not apply to orders that do not have as their principal object the issuance of benefit certificates. Fire insurance companies and associations are not to enter into combinations for controlling rates, nor to allow their agents to do so; they must make affidavit annually that they have not done so; an agreement to permit any person to make rates or the buying of rate books made by any person are to be deemed violations of the law. Such companies are required to refund a proportionate amount of premiums in certain cases where the policy contains provision that in case of loss an amount less than the face of the policy or only a certain proportion of value of property at time of loss shall be paid. An alien casualty insurance company, besides complying with provisions relative to admission of companies of other States, shall have a deposit of \$200,000 in the United States dedicated to its business and liabilities in the United States.

The office of Commissioner of Labor Statistics was created; the Governor to appoint.

The laws in regard to peddlers' licenses, pawn-brokers, and junk dealers were modified, and it was provided that dealers in farm and garden seeds shall be bound as guarantors that the seeds are as represented. Local authorities may pay public money for extermination of the San José scale; formerly the owner was liable.

Other enactments of the Legislature at this session included the following:

Prohibiting the manufacture and sale of adulterated candy, and also of adulterated wheat flour, unless marked.

Requiring corporations organized as social clubs to pay a license tax to dispense liquor.

Amending the law providing for fines for profanity and drunkenness, so that it does not apply to towns and cities having police regulations on the subject.

Amending the law on collateral inheritance tax so that it does not apply to property used exclusively for State, county, municipal, charitable, educational, or religious purposes.

Requiring railroads to carry bicycles as baggage.

Providing that the penalty for an excessive express charge is not to be enforced if the excess is refunded within ten days after demand.

Prohibiting imitations of butter from being colored like or sold as butter, and requiring placards, "Imitation butter used here," to be exhibited in hotels, bakeries, etc., where oleomargarine, butterine, or the like is used.

Providing that building and loan associations and similar institutions may elect trustees for a fixed term; rights and powers of the original trustees are vested in new trustees.

Providing for listing by owner of bonds, notes, and other securities, and statement of indebtedness of owner; no deduction for indebtedness on account of non-taxable securities or for debts created to evade taxation.

For taxing slot machines \$2.50 a year.

Providing for fine or imprisonment for riding a bicycle, vehicle, or animal on any sidewalk in an unincorporated village.

Abolishing the office of Fish Commissioner and the Board on the Chesapeake, and creating a Board of Fisheries to enforce the laws relative to oyster and fish industries.

Changing the limit of the open season for oysters from April 1 to April 15, with exceptions.

Requiring companies other than those for works of internal improvement, incorporated under general law, to file annually a list of their officers and directors; and in cases where the officers and directors are not residents of the county where the principal office is located, to appoint agents upon whom process may be served.

Requiring employers to provide seats for women in their employ.

Forbidding proprietors of billiard or pool tables to allow minors to play without consent of parents or guardians, and forbidding the selling of articles for use in games of billiards or pool to college students under twenty-one.

Changing the law for taxation of building and loan associations so as to require a license tax of \$50 on companies with a capital stock of less than \$25,000.

The Senate passed a bill to submit the question of calling a constitutional convention to vote in the spring of 1899. The House amended it by fixing the time in the autumn of the same year, but the Senate refused to concur, and the bill failed.

The reductions made in salaries and appropriations amount to about \$100,000 a year. For criminal expenses \$280,000 was appropriated, though \$300,000 has been the cost. Other amounts appropriated were: State University, \$45,000; Medical College, \$4,000; Soldiers' Home, \$35,000; Deaf, Dumb, and Blind Institute, \$35,000; Central Hospital, \$75,000; Western Hospital, \$35,000; Southwestern Hospital, \$49,000; oyster navy, \$20,000; public printing, \$25,000; Eastern Hospital, \$68,500; Colored Normal and Collegiate Institute, \$15,000; Military Institute, \$30,000; Polytechnic Institute, \$15,000.

Political.—No State officers were elected this year. At the congressional elections in November all the Democratic candidates were successful. Official tabulation of the returns shows that the total vote was 173,368, of which the parties received as follows: Democratic, 105,439; Republican, 66,156; Prohibition, 988; scattering, 785.

The Legislature for 1899 stands: Democrats in the Senate 35, in the House 95; Republicans, 4 in each house: 1 Populist in the Senate; and 1 Independent in the House.

W

WASHINGTON. A Pacific coast State, admitted to the Union Nov. 11, 1889; area, 69,180 square miles. Population, according to the census of 1890, 349,390. Capital, Olympia.

Government.—The State officers for the year were: Governor, John R. Rogers; Lieutenant Governor, Thurston Daniels; Secretary of State, Will D. Jenkins; Treasurer, C. W. Young; Auditor, Neal Cheatham; Commissioner of Public Lands, Robert Bridges; Superintendent of Public Instruction, Frank J. Browne; Attorney-General, Patrick H. Winston.

Finances.—The total receipts for the two years ending Oct. 31, 1898, were \$3,984,049.30; the total disbursements, \$3,443,424.31. The general fund amounted to \$42,426.13; the military fund to \$9,166.61; the interest fund to \$19,798.20; the permanent school fund to \$243,425.93; the current school fund to \$187,955.46; the revolving fund, Penitentiary, to \$115,764.11; the grain inspection fund to \$9,544.87; the university fund to \$1,624.39; the fish hatchery fund to \$15,744.42; the United

States fund to \$9,135.93; the printing and binding fund to \$817.51; the harbor fund to \$1,513.48; the State library fund, \$12,255.89; special land deposits, \$998.31; special tide land deposits, \$99.25; deposits for survey of tide lands, \$210; making a total of \$670,480.49.

Owing to the failure of the Legislature of 1897 to make appropriations from the revolving and grain inspection funds for use of departments dependent upon those funds, a large part of the money was diverted from its usual channel and applied direct. As a consequence, the volume of business in these funds was comparatively small.

The permanent school fund also showed an unusually large balance of cash on hand, due to the failure of the Board of State Land Commissioners to find investments other than general fund warrants, which, owing to the premium thereon, cannot be secured for this fund in sufficient amounts to absorb the surplus.

State Institutions.—The State Board of Audit and Control succeeded the Boards of Trustees and

Directors on April 1, 1897. Their report of the institutions under their charge from that date to Sept. 30, 1898, show expenditures and statistics as follow: For Western Washington Hospital for the Insane, expended \$109,516.65. There was on an average 533.75 patients daily during the year ending in October, 1898. For the Eastern Washington Hospital for the Insane \$87,318.97 was expended, the average daily number for the year being 290.23. For the State Penitentiary \$87,318.97 was expended, the total number of convicts received for the two years ending in September, 1898, being 298; number released, 377; number remaining, 320. For the State Reform School \$25,908.82 was expended. There were in the school on Sept. 30, 1898, 111 boys and 39 girls. For the Soldiers' Home \$31,644.38 was expended. The Governor, in his message to the Legislature of 1899, says: "In the face of a slightly rising market the saving for the full biennial term will be considerably more than \$60,000. Added to this the following will show a decrease in expense of management: Expenses of the various boards of trustees for the two years ending March 31, 1897, \$9,906.50; expenses of the State Board of Audit and Control for eighteen months ending Sept. 30, 1898 (this amount includes all office expenses which are not included in trustees' expenses), \$5,775.01."

Education.—The State has 1,975 public schools, of which 35 were organized in the past year. The total number of teachers employed during the year was 3,321—1,007 males and 2,227 females. The average salary of the former was \$42.13 monthly; of the latter, \$34.53. In 1898 97,916 pupils were enrolled; of these 49,908 were boys and 48,008 were girls. There are 101 private schools in the State, having a total enrollment of 3,853. The total receipts for the school year of 1898 amounted to \$2,490,180.32. The sum paid out was \$1,815,662.72, leaving a balance of \$674,517.60 at the close of the year. In the cities the salaries of teachers have been reduced, while those of rural teachers have been increased since the report of 1896.

In connection with the schools the festival of Bird Day (May 6) was established this year in Washington. The object is to prevent the destruction of song birds either wantonly or for their feathers.

Irrigation.—O. R. Holcomb, Commissioner of Arid Lands, says in his report: "Through the broad-minded policy of Thomas Cooper, Western land agent of the Northern Pacific Railway, a number of reports of reconnoissances of irrigable lands were obtained at practically no cost. The greatest region in the State in which irrigation is carried on is doubtless the Yakima country. In this region irrigation has hitherto been obtained by comparatively cheap and inexpensive systems. The lower levels have, however, all been practically covered by irrigation systems. A system to cover about 215,000 acres of the higher lands of this section was projected by Col. L. S. Howlett, in 1895-'96. This system provided for a main canal 150 miles in length, taking water from Natchez river. Under this system were selected 85,566.97 acres of vacant public land, and the total estimated cost of the system is \$2,824,200. There were of public, railroad, and private lands under his system a total of 285,000 acres of irrigable land, making the cost per acre for irrigating under this system \$9.90. The great amount of cash outlay necessary to construct this system has prevented any work being undertaken upon it, although the plans are approved by the Department of Interior, and the selected public lands are withdrawn from entry and settlement. Materials and supplies in the construction of this system, exclusive of labor, will cost approximately \$900,000. A very economical plan to irrigate 8,470

acres of land north of Columbia river in Douglas County, by a gravity canal from Priest rapids, 31 miles in length, is about to be accomplished. Another very promising irrigation field comprises the lands in the vicinity of Pasco. Surveys have been made to ascertain the possibility of watering certain of these lands by gravity from Snake river and others by gravity from Yakima river by means of crossing the Columbia with submerged pipes. Precipitation of moisture in this district is very slight, not exceeding 7 or 8 inches per annum, and as all this falls during the winter and spring months no crops can be successfully matured without irrigation. The seasons are longer here than in any part of the Northwest, excepting other portions of the lower levels of the Columbia similarly situated, because of the low elevation and the cloudless skies. Fruits and vegetables are matured two weeks earlier and grasses cut two weeks later than in the Yakima and Walla Walla districts. It has been estimated that there are in the State about 3,000,000 acres of arid lands. It is calculated that of these at least 1,000,000 can be profitably irrigated."

Products.—Wheat is the staple crop of Washington, the soil and climate are particularly favorable to it, and there are no pests; so that general failure of the crop never occurs, and the yield is probably the heaviest of any wheat-growing region in the world. The total amount of wheat from August, 1897, to September, 1898, inspected was 12,755,418 bushels.

The State Dairy Commissioner, a newly created officer, says in his first report, that of 1898: "Washington is fast becoming a great dairy State. Only a few years ago almost all the butter and cheese consumed in the State was shipped from California and the Middle West. Creamery butter manufactured in this State will compare favorably with butter manufactured in the older sections. The rivalry between creameries has been productive of much good in raising the quality of butter to its present high standard. The enterprise of the creamery men of the State is demonstrated by the fact that we have a well organized 'Dairymen's Association' in a flourishing condition, which is well attended and has its annual meetings. The professors of the Agricultural College, as well as experts from other States, deliver lectures on dairy subjects, which are of great benefit in creating an interest in the scientific methods of dairying."

The total value of the fishing appliances and canneries in the Puget Sound region in 1898 was \$1,769,980; 3,516 men were employed, and 400,200 cases of salmon were packed. The Washington side of Columbia river gives \$865,680 value of canneries and appliances, 1,775 total number of men employed, and 111,525 the number of cases of salmon. The Fish Commissioner says in his report: "During the last two years there has been a remarkable increase in the interest manifested by the citizens of the State in the fishing industry, especially is this true of those directly interested. A great many persons who, even one year ago, knew very little of the scheme of artificial propagation, have investigated the matter, and are to-day the strongest adherents and supporters of this means for keeping up and the rebuilding of the great salmon industry of the State. The season of 1898 shows a considerable falling off in the output of the fisheries of this State. The shortage in the Columbia river district of the salmon pack is not far from 10 per cent. of that of 1897. The output from the Columbia river district fisheries, taken as a whole, is not materially less than for the season of 1897, but the Washington side of the river shows a greater falling off in proportion than that shown by the whole district, including both States. The season has

been a disappointment to a large portion of the pound-net fishermen of Baker's Bay and adjacent localities. The remarkable decline of the sturgeon fisheries on Columbia river is a startling example of the destruction of a great industry. The reports for the season of 1898 show that this branch of the Columbia river fisheries has declined until it is not 10 per cent. of what it was in 1893."

Volunteers.—The Governor says in his message: "When called upon by the President for troops in the recent Spanish war, one regiment of infantry was named as the quota of the State of Washington. I immediately communicated by wire with the several captains of the different companies of the Guard throughout the State. Sunday morning, May 1, the full regiment was in camp just outside the city of Tacoma; more men offering than the Government would, at that time, accept. Afterward, under a second call the State was asked to furnish additional men to fill up the regiment to a maximum of 1,326, which was done."

State Capitol.—On this subject Gov. Rogers says in his message: "The State of Washington is and has been since its organization without a suitable building for the various State offices. Offices are rented at an annual rental of over \$6,000. Some inconvenience results from crowded quarters and lack of proper appliances. To remedy this, some years ago an architect was employed, a plan adopted, and a foundation prepared for the erection of a Capitol building, estimated to cost about \$1,000,000. The Constitution of this State provides in the most explicit terms that the indebtedness of the State shall never exceed the sum of \$400,000. There has been donated, however, by the General Government to the State of Washington 132,000 acres of wild land for the purpose expressed of aiding in the construction of public buildings. Laws have been passed creating a Capitol Commission and providing for the creation of a Capitol Building fund to arise from the proceeds of the lands when sold. On this imaginary fund, which has never contained a dollar, warrants bearing 8 per cent. interest, aggregating \$95,874.73, have been issued. These, with accrued interest, amount at the present time to about \$125,000. For this sum, which is increasing at the rate of about \$8,000 annually, the State has the foundation before referred to, for which the contractors received less than \$48,000. During the legislative session of 1897 a bill was supposed to have passed, although it lacked the constitutional number of votes in the House, appropriating \$500,000 from the aforesaid Capitol Building fund. On \$250,000 of this, by the terms of the bill, the State guaranteed interest at the rate of 4 per cent. The bill did not adequately protect the State, did not receive a constitutional majority, and was vetoed."

Political.—The Republican Convention met in Tacoma, Sept. 22. The platform contained the following declarations:

"We indorse the conduct of the Administration of President McKinley relating to the measures and events which led to the war with Spain, the conduct of the war throughout, and are now in favor of the retention of the conquered territory.

"We favor the existing gold standard and oppose the free and unlimited coinage of silver.

"We indorse the action of the present Republican Congress which has re-enacted in law a protective tariff through the Dingley bill and restored prosperity to the country.

"We demand the completion of the Nicaragua Canal as a United States water way, at the earliest practicable time.

"We favor the construction of the Puget Sound, Gray's Harbor, and Columbia Canal, and the improvement of the Columbia and Snake rivers, thus

uniting all navigable inland seas and rivers of this State with the Pacific Ocean.

"We are in favor of upbuilding the American merchant marine and the protection of American rights in every quarter of the world with an adequate navy.

"We are in favor of the equal taxation of all classes of property upon the basis of value, and we therefore oppose the amendment to the Constitution proposed by the late fusion Legislature upon the subject of taxation.

"We urge the restoration of the State normal schools and commend the citizens of this State for their private maintenance of these schools, necessitated by the failure of the late Legislature to make proper appropriations.

"We recommend the establishment of a system of postal savings banks.

"We glory in the achievements of our army and navy in the prosecution of the war with Spain, and especially in the name of the people of this State thank the volunteers from the State of Washington for their patriotic action in enlisting in the defense of their country.

"We demand the repeal of the forestry reserve order to the extent of reopening for settlement every acre of reserved land in this State which is suitable for agricultural, logging, or mining purposes; and we pledge our nominees for Congress, when elected, to work to this end.

"Firmly believing in the principle of equal rights to all and special privileges to none, we recommend to the voters of the State a careful consideration of the proposed constitutional amendment granting equal suffrage."

The fusion platform declared for the initiative and referendum; for issue of currency by the Government only; for free coinage of silver at 16 to 1; for liberal exemption from taxation of personal property and improvements on land; against any further issue of Government bonds; for election of United States Senators by the people; and in favor of the single tax and woman suffrage.

The officers to be voted for were a justice of the Supreme Court, members of Congress, and members of the State Legislature. Two Constitutional amendments were submitted, one for the single tax on land and one for woman suffrage.

In the election the Republicans were successful. Their candidate for justice, T. J. Anders, was elected by a plurality of 8,023, in a total vote of 74,024. The two Republican candidates for Congress were elected by pluralities of 3,424 and 2,602. The new Legislature has in the Senate 6 Democrats, 15 Republicans, and 13 Populists; in the House, 3 Democrats, 70 Republicans, 4 Populists, and 1 Independent. Both of the constitutional amendments were defeated. Two thirds of those who voted on the single-tax amendment voted against it; on the woman suffrage amendment the adverse majority was a little less.

WEST AFRICA, the west coast of Africa not already occupied by French, British, Portuguese, and Spanish colonies and stations, the independent republic of Liberia, or the Congo Free State, has since 1884, with a great part of the interior, been partitioned between England, France, and Germany.

Great Britain's possessions comprise the older colonies of Sierra Leone, Gambia, and Lagos, the Gold Coast, the Niger Coast protectorate, and the Niger territories.

France possesses the colony of Senegal, French Guinea, the French Soudan, and the French Congo. The German possessions in West Africa are Togoland and Cameroons.

The Portuguese possessions are Cape Verde, Portuguese Guinea, Prince's and St. Thomas islands,

and Angola in the south, including Ambriz, Benguela, Mossamedes, and the Portuguese Congo.

Spain claims the coast region south of Morocco, where are the settlements of Rio de Oro and Adrar, near Cape Nun the station of Ifni, and farther south the island of Fernando Po, with Annabon, Corisco, Elobey, and San Juan, on the Guinea coast.

Revolt in Sierra Leone.—The colony of Sierra Leone, consisting of the peninsula on which Freetown is situated, the island of Sherbro and some other islands, and a strip of coast about 20 miles broad extending 180 miles, has an area of about 4,000 miles. The British sphere of influence behind the colony, a thickly populated territory of 30,000 square miles, was proclaimed a protectorate after the Anglo-French delimitation agreement of Jan. 21, 1895; and to meet the expense of a frontier force of 600 men and an administrative and judicial system without calling on the colony or the Imperial Government for aid, Sir Frederick Cardew, who was administrator of the protectorate as well as Governor of the colony, proclaimed, in addition to a system of trade and spirit licenses, a native hut tax, to go into practical operation on Jan. 1, 1898, with the other provisions of the protectorate ordinance. A great protest was raised against the tax, not only among the negroes of the protectorate on whom it was imposed, but among the merchants and in the press of Freetown. Formerly the colony itself was subjected to a tax of 5 s. on every house, and many poor people had their household goods seized by the bailiffs and sold at auction, or were sentenced to work in the chain gang because they could not pay; but when Sir John Pope Hennessy came out as Governor he repealed the tax in 1872. His memory is celebrated to this day, and now the colonists feared the reimposition of direct taxes. In the protectorate some of the Timanis of the north—Fulah Arabs in race, superior in intelligence and character to the Mendis of the south—determined that they would not or could not pay the tax, which was imposed at the start only in 3 of the 5 districts, those nearest to the coast, and only at the lowest rate, 5 s. a hut per annum, with exemption of the smaller villages. Bai Bureh, a champion of the natives who had already made himself obnoxious to the Government, headed the opposition and intimidated those who were preparing to pay by threatening to kill any man who did so. The commissioner of the Karene district, Capt. Sharpe, began the collection of the tax at Port Lokko. The traders were prepared to pay, but said they dared not do so on account of the natives, who threatened to burn their houses if they paid. The commissioner summoned the five head men, who not only refused to pay, but said they had agreed to kill the first man who did. On this they were arrested and sent to Freetown jail. After this a leading native, Sorie Bunker, was declared *Alicarli*, or paramount chief, at Port Lokko by Commissioner Sharp, and was intrusted with the collection of the tax. He collected a great part of the tax assessed on the town, but he was killed when on the way to deliver the money at Freetown. Capt. Sharpe sent a message informing Bai Bureh that he was coming to collect from him, and received a defiant reply threatening to kill the first man who set foot in his town. The commissioner, having obtained re-enforcements from Freetown, sent a detachment of frontier police to arrest him. This small force encountered several thousand well-armed natives, who compelled the police to retreat to Karene town, where they were closely besieged and reduced to the last stages of hunger. The natives had not rebelled against the order forbidding the slave trade or against the wholesale freeing of the slaves whenever these sought refuge with the

British commissioner or in the colony, although slaves were the only laborers in the country and the only source of wealth for the chiefs and superior natives. The hut tax bore on the common people, who regarded it as so unjust and oppressive and impossible to meet that they would rather burn their huts, many of which were not worth 5 s. than pay such a heavy tribute to their white masters, whom they did not yet acknowledge and had never seen; for the frontier police, now at their mercy, were natives like themselves. When the Governor learned of the plight of the police besieged in Karene, he dispatched a company of West Indian troops to their relief. The black soldiers proceeded up the Great Scarceis river in a steamer to Robat, and then 50 miles across country by way of Karene to Port Lokko, on the Sierra Leone river. All the villages between Robat and Port Lokko were burned by the soldiers. From Karene, which was now occupied by a sufficient force of frontier police, Major Norris had to fight his way; and at Port Lokko he was compelled to throw up intrenchments, which his company had difficulty in defending against the incessant attacks of the natives. On learning of the precarious situation of the troops, the Governor dispatched a second West Indian company direct up the Sierra Leone river with a convoy of armed boats. The naval gunners, arriving on March 5, soon raised the siege of the camp at Port Lokko by shelling the village and burning it to the ground, upon which all the natives ran away. One of the companies held Port Lokko as a base of operations, while the other proceeded up country to aid the frontier police. A third company was dispatched from Freetown, and others were sent later, until by April 1 there were 6 companies of the West India regiment in the Karene district. Bai Bureh, who was an able commander, maintained a stout resistance, and even inflicted considerable losses upon the British troops. Encouraged by his success, other chiefs of the Timani tribes revolted. Further re-enforcements arrived from St. Helena, bringing the number of troops up to 800. This force was strong enough to traverse the disturbed district in all directions, clearing from before them the natives who fought from behind trees with trade guns; so that by the end of April the country was reported by Col. Marshall, commanding the troops, to be tranquil. Bai Bureh was still at large, but the natives were sufficiently cowed, and all the houses on which the tax had been levied had been destroyed by the soldiers to enforce the lesson.

More serious difficulties, however, followed in the wake of the Timani rising. The more numerous and more barbarous Mendi tribes, which had paid the hut tax uncomplainingly, upon seeing how a comparatively few natives could hold at bay all the British forces in the country, entered into a conspiracy to exterminate all the whites and Sierra Leone people. Such a widespread plot was rendered possible by the secret society called the Poro, to which all the Mendis, Timanis, Konnos, and Kissis belong. War against the whites was planned in the Poro bush at Bompeh, and the signal of the burned leaf was sent forth to all the Mendi chiefs. The outbreak was arranged to take place at the beginning of May, as before troops could be sent up the rains would have set in, rendering difficult the movements of large bodies of men. The disturbances began at Kambia, in the Bandajuma district, on April 27. Factories in that district were looted, and native traders murdered. When the insurrection became general throughout the district and spread to the frontier neighborhood of Imperri, opposite the island of Sherbro, troops were withdrawn from Karene to re-enforce the frontier police of this part

of the protectorate. In the first week disturbances broke out in the Ronietta district, where insurgent bands captured Kwalu and advanced across the colonial frontier. Many traders, white and colored, many native missionaries and Christian natives, and at Rotifunk some of the American missionaries of the United Brethren in Christ, were massacred before they could be rescued by the gunboats that were sent to bring away traders, missionaries, and officials from dangerous positions on the coast. On the island of Sherbro and at other places within the colony the natives rose and murdered Sierra Leone traders and missionaries, more than 200 people altogether, and sacked and burned the factories. At Shengay the headquarters of the American mission were burned.

The Timanis resumed aggressive tactics after the Mendis rebelled. The insurgents invaded Kwellu, close to Freetown, and in that city a force of volunteers was enrolled to guard against a rising in the town or the suburbs. From Mano, on the border of Liberia, to Bendu, which the rebels burned to the ground, the whole country was devastated.

The American missionaries murdered at Rotifunk were Miss May Archer, Miss Marietta Hatfield, Miss Ella Schenk, and Mr. and Mrs. I. N. Cain. At Taïama, Mr. and Mrs. McGrew, American missionaries, were murdered on May 8. All British and American missionaries who could escape took refuge in Freetown, and were urged by the Governor to return to their homes. The missionaries appear to have been murdered partly to strike terror into the other English-speaking people, and partly because the natives have a strong feeling against missionaries on account of their opposition to the customs of fetichism and sacrifice. In the north, only one missionary, Rev. W. J. Humphrey, was killed, and that was because he resisted the insurgents. Additional naval forces and West Indian troops from Lagos were hurried to the scene of conflict. It was estimated that 1,500 traders were massacred. Columns of troops were speedily organized for the relief of outlying posts, and the punishment of the rebels as far as possible. These operations were suspended at the beginning of August, when the rains had rendered the roads impassable. Before the end of May the Kwellu district was in the possession of the British, who destroyed the native towns. They retook Rotifunk, and extended their occupation until the rebellious chiefs were ready to sue for peace. Bompeh, the chief stronghold of the Mendis, was captured on June 13 as the result of a sanguinary battle in which the insurgent natives suffered nearly all the loss. At Shemgeh and elsewhere, whenever the rebels resumed their depredations, a column marched in and destroyed their villages and plantations. While operations were suspended during the rainy season, Sir David P. Chalmers, who once was Chief Justice of Sierra Leone, was sent out by the Imperial Government as a special commissioner to inquire whether the insurrection was caused by the imposition of the hut tax and the steps taken to enforce it; it having been stated that a direct tax of this kind is peculiarly obnoxious to the customs and feelings of the natives of Sierra Leone, and that much offense had been given by the brutal and insulting way in which the collection of the tax was carried out by the native police. He was directed to report whether in the circumstances of the protectorate it was necessary or expedient to impose the tax. In regard to the later general rising he was instructed to inquire into the operations of secret societies, into the alleged incitements of the Freetown press, and of traders and others in the colony. The instructions also embraced an inquiry into the scheme of administration adopted for the protectorate, as well as the

best method of raising revenue, and into the desirability of reimposing direct taxation in the colony. For the larger operations planned for December a special regiment was recruited in the West Indies, and placed under the orders of Col. E. R. H. Woodgate, with Lieut.-Col. G. G. Cunningham next in command. A detachment of artillery and a section of engineers were attached to the command, while it was intended to use gunboats in all the rivers and creeks, and land marines to operate throughout the coast districts. Operations against the rebels were renewed in September. The native troops, divided into six columns, marched in parallel lines through the protectorate, while the marines scoured the coast districts. The rebellion had entirely subsided, and Bai Bureh and the other rebel chiefs were delivered up to the British.

Anglo-French Delimitation Agreement.—In the times of the slave trade the European countries possessed only trading-posts on the coast. Great Britain retained her stations afterward chiefly as bases for combating the slave trade, while those of Spain, Portugal, and the Netherlands fell into decay. In 1865 the British Government contemplated abandoning its possessions except a naval station at Sierra Leone. After having, in 1861, acquired the Dutch posts on the Gold Coast and established an administration at Lagos, Liverpool and Hamburg merchants built up a trade in West Africa, chiefly in gin and firearms. France in Senegambia was the first to organize a military and civil power in these regions. The occupation of Togoland and Cameroons by Germany in 1884 stimulated the British to extend their sphere of activity, principally by means of the chartered Company of the Niger, organized in 1885, which bought out the French merchants established on the river, supplanted the incipient German trade, made treaties with the native chiefs controlling the navigable waters of the Niger, and established tolls and tariffs that secured to itself a practical monopoly of the trade. In the Berlin-African conference of 1885 the Niger was declared an international stream, but the regulation of navigation was left to Great Britain. At the same conference the conditions governing the acquisition of African territories were laid down. For establishing suzerain rights on the coast effective occupation was declared necessary. The Hinterland behind the coast territories was regarded as belonging presumptively to these. Great Britain proposed that effective possession should be required in the interior also, but France objected. French activity in the rear of Sierra Leone and Gambia had already circumscribed the Hinterland of these British colonies. Germany subsequently renounced the ambition to acquire vast territories in the interior of Africa, assigning the Hinterland of the Cameroons to France, which had already conquered powerful Mohammedan states in the Soudan, and aimed to unite in a continuous empire Algeria and Tunis in the north, the French Congo in the south, and the coast territories of Senegambia, French Guinea, the Ivory Coast, and Dahomey, as well as to extend this empire eastward across the continent to the Nile valley. Dahomey, Futa Jallon, and the states of the French Soudan, Timbuctoo on the Niger, Kong, and other territories were acquired at the cost of much blood and treasure. The British subjugated Ashanti, but left to the Niger Company the main task of forestalling the French in the regions of the middle and upper Niger and Lake Chad. The delimitation of the colonies of Gambia and Sierra Leone having been arranged in 1889, a boundary was also settled between the British Gold Coast and the French Ivory Coast, and one between Lagos and Dahomey; both ending at 9° of north latitude, beyond which the vast regions in

the bend of the Niger and beyond that river were still left ownerless. The agents of the Niger Company were busy in these regions, and when it was claimed in 1890 that the Emperor of Sokoto had accepted British protection, the French Government agreed on a line running from Say on the Niger to Barrua on Lake Chad, as a limit by which French development from Algeria in the north, as well as British development from the Nigerian territories in the south, should be bounded. The same agreement provided for the appointment of an Anglo-French Commission to which should be intrusted the task of determining the respective spheres of influence of the two countries in the region which extends to the west and to the south of the middle and upper Niger. This commission met in 1892. The Dahomey war, which occurred in the same year, rendered unacceptable to France the proposition to divide the two spheres by a line drawn from Say to the point where the western boundary of the Gold Coast is intersected by 8° of north latitude. When negotiations were resumed in 1894 a prolongation of the frontier of Lagos and Dahomey northward to the middle Niger was discussed, but England would not accept this delimitation unless it was accompanied by a settlement of other questions pending between the two countries. The proceedings were resumed once more in 1896, when England proposed a line from Ilo on the middle Niger down to the extreme point of the boundary already agreed upon between Lagos and Dahomey, thus including in the British sphere the Bussa territory and the sultanate of Borgu, over which a protectorate had been declared on Jan. 1, 1895. The French, who had been active in these regions and had established a military post at Fort Arenberg, opposite Bajibo, laid claim to the whole right bank of the Niger nearly down to the confluence of the Benue, restricting the Hinterland of Lagos to 8° of north latitude. The British commissioners rejected this proposal, asserting that Gando, Borgu, Mossi, and other countries west of the Niger were dependencies of Sokoto or were British by virtue of separate treaties with their rulers. The French had learned to doubt all the treaties made by the Niger Company, asserting that the original treaty with Sokoto conferred trading rights only; that Sokoto's extent had been magnified so as to include independent countries as large as itself; and that the company's agents claimed to have made treaties with rulers when they had been dealing with vassals or rebels. As the countries in the bend of the Niger were the Hinterland of Senegal and of the French colonies on the Guinea coast as well as of the British colonies, they insisted on the doctrine of effective possession. The Royal Niger Company, which had always been unwilling to imperil its dividends by incurring heavy military or political expenses, determined to recover lost ground. It organized a military force, and in 1897 began a war of conquest against the native tribes which was carried up to the territory occupied by the French on the Niger. Crossing the river, a British force threatened Fort Arenberg, and induced the small garrison of blacks to evacuate it by asserting that it was a part of Bajibo, a British station. The object of the French advance into this region directly in the rear of Lagos was to obtain a port on the lower Niger, an outlet for the interior of Dahomey and the French annexations in the middle and upper Niger below the rapids of Bussa, above which for more than 600 miles the river was not navigable. The French Government, fearing a collision between the Niger Company's forces and its own, requested that pending the discussion of frontier lines troops should not be sent into the territory under dispute. The British Gov-

ernment promised that the troops of the Niger Company should not advance beyond 9° of north latitude. This undertaking did not prevent the French from occupying fresh posts in the region west of the Niger or the British from fitting out expeditions from the Gold Coast and Lagos. In order to deal with the new crisis thus precipitated the Anglo-French Commission renewed its sittings in November, 1897. One of the charges that the French brought against the British was that they supplied their enemies with arms. The British had entered into a temporary alliance with Samory, the chief of the predatory Sofas, with whom the French had long been at war. In the early part of 1897 Lieut. Francis B. Henderson went up from the Gold Coast to Wa and Bona, where a colored agent named Ferguson, who was afterward killed, had already concluded treaties, and after a battle with the Sofas went to Samory's camp and arranged a treaty with the robber chieftain.

The Sultan of Sokoto, whom the English regarded as Emperor of all the Mohammedan states of the Niger, was inclined to repudiate the British protectorate. The ruler of Nupe had denied it, but was brought to terms early in 1897; and now the British threatened a campaign against Sokoto, which was menaced also by Rabah, the conqueror of Bagirmi and Bornu, who had established his residence in the city of Kano, previously subject to Sokoto. After the British campaign against Nupe and Ilorin the Sultan of Sokoto refused the subsidy of £3,000 offered by the Niger Company, and tried to get up a league to fight the British. The rapid development of the military power of the Niger Company caused him to change his mind, and as the result of months of negotiation he declared his acceptance of the British alliance early in 1898.

Bonduku, which the English troops from the Gold Coast had taken and shortly afterward evacuated, was occupied by a French force under the direction of M. Clozel before the close of 1897. The activity of the British Niger Company on the upper reaches of the lower Niger, where the French had occupied Bussa and the whole country over which a British protectorate had been declared on Jan. 1, 1895, was hindered by the necessity of subduing the hostile tribes in the original protectorate. Thus a vigorous campaign was carried on against the Ibouzas on the borders of the delta, between Benin city and the river, who were accused of practicing human sacrifices. For this reason the officials of the company willingly promised not to disturb the French in Bussa and waited for the Imperial Government to come to their aid with new military forces. Lieut. Bretonnet, commanding the first expedition sent out from Dahomey, had marched to the west of Niki, whose King was very jealous of Europeans, and reached Ilo and thence marched along the bank of the Niger in February, 1897, down to Bussa, where the French were welcomed by the King, whom they aided in a long war waged upon him by his rival Cora with bands raised in Wa and Borgu. The Bariba chiefs, through whose country the French marched, were then friendly; but after Capt. Baud and Capt. Vermeersch arrived later to occupy their country they aided the King of Borgu in his resistance. Lieut. Bretonnet, after the other officers had occupied Borgu, provided for keeping up the line of posts from Kiama to Bussa and up the river to Ilo. Niki was not captured by the French without severe fighting. The French force of 150 men advancing northward from Carnotville under Major Ricort, after several encounters with the King's troops, entered the capital on Nov. 30, 1897, after which the King's army disbanded, all the Baribas in the region capitulated, and the French troops, joined by those that marched down from the north by way of Wa-

gadugu, Parna, Konkodiri, Kandi, Sori, and Bue, remained in undisputed possession of Paraku, Niki, Shori, and Kiama, as well as Lafagon and Bussa on the Niger—of the whole of Borgu, in fact, as well as of Mossi and Gurma—until a British force marched up from Lagos to challenge their rights at Borea and seized the country south of that place. From Say, which was occupied by troops of the French Soudan, a line of French posts, including Bikini, Karamama, Ilo, Gamba, and Lafagon, occupied the right bank of the Niger down to Bussa. The French, advancing from the north, took possession of Wagadugu, the capital of Mossi, the King of which country accepted French protection. After Niki, the capital of Borgu, was occupied the old King died, and his eldest son was installed as King. The new King's brother fled to the English and persuaded them that he was the rightful King, and was anxious to cede the country to them if they would establish him on the throne. Col. McCallum proclaimed this pretender King of Borgu on March 9. Col. Northcott, who commanded the column sent from the Gold Coast, reached Wa, capital of Dagarti, Feb. 1, 1898, and found it in the possession of the French, who had driven the Sofas out of this country and occupied the towns devastated by them. It was guarded by a small black force, and when the English commander ordered the blacks to withdraw they did so. He raised the English flag in the adjacent village of Nasa and at Wa. Lieut. Caudrelier, commander of the French troops, arriving shortly afterward, demanded that the British withdraw. When they refused he hoisted the French flag at Wa again alongside of theirs. In the back country of Lagos another French force, coming southward from Niki, came into contact with a British outpost at Borea, Feb. 9, and ordered the negro sergeant in command to haul down the British flag. Meeting with a refusal, he encamped his force about three miles from the town. About the same time it was reported that a French expedition had crossed the Niger and advanced 100 miles into the territory reserved for British influence by the Say-Barua agreement, and was at Argungu, on the border of Gando; that the Sultan of Sokoto had forbidden the party to advance into his dominion; and that the agent general of the Royal Niger Company, William Wallace, was fitting out a force to expel the French. The British minister at Paris asked for an explanation, and M. Hanotaux denied that a French expedition had entered Sokoto or the British sphere, but later he explained that it was an expedition fitted out by Prince d'Arenberg; that Capt. Casamajou, its commander, had disobeyed the positive orders of the French Government in passing south of the Say-Barua line. The French Minister of the Colonies immediately sent orders for him to move northward. Major Lugard, with 100 British officers and an equal number of non-commissioned officers, left England for the Niger in the first part of 1898 to organize two imperial battalions of native troops, each about 1,200 strong, one of Hausas raised at Lagos and one of Yorubas recruited in the Niger territory. Indian engineers were dispatched from Madras. Not counting these new formations, there were in the Niger territories and the Lagos and Gold Coast Hinterland between 5,000 and 6,000 British troops, all natives except the officers. In moving troops up from Ashanti, the British officers disturbed the commerce of the Gold Coast for some time by impressing carriers, traders, and all the natives who could be caught into the service of transporting supplies up country. The British and French forces, seeking to put into practice the theory of effective possession and to occupy as many points as possible in the bend of the Niger, divided into small parties

which rushed through the country, raising a flag over every village where one was not already displayed. The soldiers of both nations had received positive orders not under any circumstance or upon any provocation to accept a conflict. It happened several times that an English detachment, finding a place occupied by the French, marched on and raised the British flag at a point farther north. In the same manner, French parties passed by points that were found to be in British occupation and established posts beyond. Hence the two countries had stations dotted over the map in inextricable confusion. The English marched through the neutral zone established in March, 1888, between their Gold Coast Hinterland and that of German Togoland, established a line of communications through Yeji and Salaga, and north of the zone raised the British flag at Gambaga and Bawku. When the German Government made an earnest protest, they withdrew from the neutral territory. A Franco-German convention fixing the boundary line between Dahomey and Togoland, leaving to France everything north of 11° of latitude, went into effect on Jan. 12, 1898.

The British headquarters on the Niger, established at Lokoja, where the Benue enters the Niger, by Lieut.-Col. Pilcher, after the arrival of Col. Lugard, were moved up to Jebba, close to the principal scene of the scramble, where the French held Bussa, on the Niger, and a line of communications through Kiama and Ashigire to Niki, while a short distance away the English were spread out from Leaba to Okuta, Bere, and Borea, which was disputed by the French and was on the line of French communications from Niki through Shori to Carnotville, in the north of Dahomey. The English had reached Boria from Lagos through Saki and Ilesha, to the east of which, between it and Jebba, far to the south of their other posts, the French had planted their flag at Kishi. The Yoruba regiment, raised at Ibadan by Col. Lugard, departed for the Niger before the beginning of March, and the Niger regiment was already at Jebba. These new troops established strong posts on the west bank at Fort Goldie and Leaba.

Lieut.-Col. McCallum, the Governor of Lagos, reached Okuta, the main British post in the disputed district on the Niger, on March 11. With 500 West Indian and Hausa troops on the frontier and 1,000 more in reserve, besides friendly Baribas and other native irregulars at command, the British military force in this region was greatly superior to the French, even before the arrival of the new imperial troops at Jebba. In the back country of the Gold Coast also the British gradually developed a superior force and were able to put 3,000 men into the field—Hausas, West Indians, Fantee police, and friendly Koranzas. The regular force of the Niger Company, about 1,000 strong, was enlarged by recruiting more Yorubas and men from the best tribes on the Niger. The Lagos troops found admirable auxiliaries in the Baribas who had not come to terms with the French, and had been expelled from Niki and those of the country occupied by themselves. They took possession of the important Bariba town of Bode. As they held Ilesha and Saki already, and the northern towns of Bere and Okuta, the Baribas accepted an alliance. Col. McCallum arranged a peace between the prince, whom he had proclaimed King of Niki, and the King of Yoruba, an old enemy of Borgu. The isolated French post of Kishi, a Yoruba town, was wrested from the French in May by the instrumentality of the native population, which drove out the small garrison and admitted an English force. The French, after protesting against the occupation of the town by the British, established a post outside of the town walls and hoisted the French flag.

The Delimitation Commission, composed of Martin Gosselin and Col. William Everett, acting for England, and René Lecomte and Col. Louis Gustave Binger, French delegates, came to a virtual agreement on the main points in dispute before the end of May, and on June 14 signed the Niger convention settling the whole question and relieving the tension, which, on the English side, had given rise to a dangerous war spirit. The French had to give up the coveted strip of territory on the maritime Niger; while the English were obliged to yield the rights asserted on the principle of Hinterland or based on dubious treaties, and relinquish their claims to vast regions over which the French had established the more palpable title of effective occupation.

Beginning in 9° of latitude at the northern end of the conventional boundary already fixed between the Gold Coast and the Ivory Coast, the new boundary follows the course of the Black Volta up to 11° of latitude, and then runs east along this parallel till it meets the boundary arranged between Togoland and Dahomey, making a deflection so as to include in the English sphere the towns of Bawku and Sapeliga. This limits the Hinterland of the Gold Coast to the parallel of 11°, to which Germany had agreed for Togoland, leaving to France Gurunsi and the valuable territories of Mossi and Gurma beyond; while Great Britain retained Gona, Mamprusi, and Dagarti, the country about Wa, where French and British troops were watching each other. The French were compelled to haul down their flag at Wa; but in compensation the British had to evacuate Bona and Dokta, west of the boundary.

The extension of the Lagos-Dahomey boundary runs northward to the vicinity of Borea, and then curves inward toward the Niger, so as to give to France Niki; while England obtained Bussa and the whole navigable part of the Niger. The line was drawn so as to leave on the English side the villages of Okuta, Borea, Tereh, Gbani, Ashigire, and Dekala, and strike the Niger 10 miles above Gere or Ilo. There the line crosses the Niger, giving to France a triangle on the east bank south of the Say-Barua line, embracing the Zaberma and Mauri countries. It follows a dry water course, the Dallul Mauri, up to a point 100 miles from the city of Sokoto, runs around the arc of a circle with this radius until it cuts the parallel of 14° the second time, follows this parallel eastward for 70 miles, then runs due south to 11° 21' of north latitude, runs eastward again for 250 miles, then due north to 14° of latitude, then eastward and into Lake Chad to the meridian passing 35' east of the center of the town of Kuka, and thence southward to the southern shore of the lake, where it meets the boundary agreed upon between the Niger Company's territory and Cameroons. The treaty provided for the demarcation of the boundaries by a joint commission within a year. The two powers agreed reciprocally to treat with consideration the native chiefs who, having treaties with one of them, come under the sovereignty of the other by virtue of the treaty. In return for the renunciation of territorial rights on the lower Niger, and in consideration also of an agreement to throw open the French colonies of the Ivory Coast and Dahomey to British trade for thirty years at only the same rates of duty as are charged on French goods (the English Government giving the same undertaking in respect to its colonies of the Gold Coast, Lagos, and the Niger territories), the French obtain the lease for thirty years of two bonded areas, not to exceed 50 hectares each, one at the mouth of the Niger and one between Leaba and the junction of the Mossi and the Niger, and also a right of way from the latter across British territory to some point on the French frontier. This will enable the French to land, store, and

transship goods destined for the interior of Dahomey or for French territories on the middle or upper Niger without payment of duties.

The convention secures to France the chief object held in view in the French policy and pursued with pertinacity and extraordinary exertions and sacrifices, but till now constantly threatened by Great Britain; that is, the continuity of all the French possessions in West Africa, the title to the whole central part of the great shoulder of Africa. The states of the central Soudan do not yet acknowledge the suzerainty of any European power, and it is still possible for the British, either from the Niger or from Egypt, to cut off the French Congo from the northern territories; but since the English Government conceded to Germany the country of Adamawa and the extension to Lake Chad, and since Germany relinquished to France all rights east of the Shari river, the French have already approached Lake Chad with a line of posts from the French Congo. Before the Anglo-French convention was signed M. Gentil emerged after two years of exploration in Central Africa, having established a post at Krebedje, on the Tomy, a tributary of the Koama, then crossed over to the Gribingi, a tributary of the Shari, and explored both rivers and Lake Chad in a steamer. The convention places in the French sphere the country conquered by Rabeh and specifically resigns to France all the shores of Lake Chad, except a strip giving access to the lake of about twice the length of the shore reserved by Germany, all comprised between the point where the parallel of latitude passing through Barua meets the shore of the lake and the frontier settled between France and Germany in the convention of Feb. 4, 1894. Immediately after the signing of the convention the British and French governments withdrew their troops from the places in which their sovereignty was not sanctioned by the arrangement. The French Chambers had not acted on the convention when the period of six months fixed for its ratification was nearly at an end, and consequently a new convention prolonging the period for six months was signed on Dec. 8.

After the settlement of the boundary dispute the British Government made arrangements with the Royal Niger Company for the transference of the territories to imperial administration. It was decided to withdraw the charter and wind up the company. The English forces that were released by the conclusion of the agreement with France returned to their interminable task of reducing to subjection the savages of the Niger coast region and compelling the more formidable rebel chiefs of the Fulah tribes to observe their treaty obligations. A part of the troops were sent to reassert British power in the Sierra Leone protectorate. The French military forces were set free for the accomplishment of the final overthrow of Samory. A line of posts was established along the Bandamma river through Kong to the French Soudan, and another up the Komoe river through Bonduku and Bona. In the spring Samory's Sofas had held the French garrison at Kong besieged for weeks; but after the French made Bona a base of operations for the junction of the Ivory Coast and the Soudan and captured Sikasso, his power began to dwindle. Many of the Sofa chiefs were won over to the French, one after another. When a double line of posts connected the Soudan with the coast, Samory withdrew, with the followers who remained faithful to him, westward across the Bandamma. Lieut. Woelfel with a force of Soudanese *tirailleurs* disputed the passage of the Cavally with him, and having the aid of the inhabitants of the country, hemmed in the exhausted and famishing Sofa army on Sept. 9, driving it into a morass, where 30,000 prisoners were taken. Sa-

mory escaped, with a small remnant, to a retreat in the mountains, where he was captured on Sept. 29.

WEST INDIES. With the exception of Hayti-Santo Domingo, Cuba, and Puerto Rico, all the West Indian islands are dependencies of European powers. In speaking of the West Indian colonies it is usual to include British Guiana, French Guiana, and Dutch Guiana, on the mainland of South America, and also British Honduras in Central America.

The most striking occurrence in the West Indies during 1898 was the hurricane that swept over the islands Sept. 11, 12. The islands that suffered most severely were Barbadoes, St. Lucia, St. Vincent, and Jamaica. Great loss of life through land-slides and floods occurred, and many towns and villages were destroyed. Prompt measures were taken by the British Government to relieve the distress.

In Mr. Chamberlain's dispatches to the colonial governors during 1898 are foreshadowed important political changes in the British West Indian colonies in the near future. The colonies are nearly all in a very unsatisfactory financial condition; and although this is due in a large degree to the effects of the continental beet-sugar bounty system, an effort is to be made, by combining some of the smaller colonies, to reduce expenditure within the limits of the local revenue. In 1898 a Department of Agriculture for the West Indies was established, following the suggestions in the report of the West India Royal Commission of 1897. At the head of this department is Dr. Morris, assistant director of the Royal Botanic Gardens at Kew. Early in September, 1898, a conference of scientific men, sugar experts, and planters of the British West Indies was held in Barbadoes. The following resolution, which sums up the situation in a few words, was unanimously carried: "This meeting of delegates from British Guiana, Trinidad, Jamaica, Barbadoes, and Antigua, while fully recognizing the efforts of the Right Hon. the Secretary of State for the Colonies to afford relief to the West Indian colonies, suffering from the serious depression of the sugar industry, regrets that, so far, the attempts to arrange reciprocal relations between the United States and the West Indies, as well as to obtain the abolition of the bounty system, have met with no success. This meeting would strongly urge upon the British Government that nothing short of the speedy rehabilitation of the sugar industry can restore prosperity to the West Indies and British Guiana; and they respectfully demand, as British subjects, the right to compete in the home markets at the natural cost of production with sugar imported from foreign countries; and urgently call upon her Majesty's Government, as the only effective remedy, to take such steps as will either prevent the importation of all sugar on which export bounties are given or annul by countervailing duty all the advantages derived from such export bounties."

British Colonies.—The British West Indian possessions, including British Guiana and British Honduras, have a total area of 128,802 square miles, and a total population of 1,576,811. They are divided into eight distinct colonies. Each colony is administered by a Governor assisted by a legislative body which in some of the colonies is nominated by the Crown, in others elected by the people. The revenue of the British West Indian colonies in 1897 was £2,346,923, and the expenditure £2,509,503. The total public debt was £5,299,361. The total tonnage of vessels entered and cleared was 10,154,357, of which 7,801,818 was British. The total imports in 1897 were valued at £7,443,276, of which £3,368,419 came from England and £2,000,000 from the United States. The exports were valued at £7,166,893, of which £2,436,628 went to the United

Kingdom and £2,800,000 to the United States. The principal articles of export were sugar, molasses, rum, fruit, cocoa, and coffee. The chief articles of import were cotton goods, foodstuffs, and wearing apparel.

The Bahamas have an area of 4,465 square miles, and had a population in 1897 of a little more than 52,000. The death rate of the colony was 24.7, and the birth rate 45 per 1,000 in 1897. The revenue in 1897 was £62,754, and the expenditure £63,405. Of this latter sum £8,384 was expense on account of public debt, and £6,644 for public works. The public debt in 1897 was £119,026. The value of imports and exports in 1896 was £194,744 and £189,000 respectively. In 1897 the value of the imports was £186,010, of which £131,000 worth came from the United States and only £46,000 worth from the United Kingdom. The exports in 1897 were valued at £149,000, the United States taking £114,000 worth and the United Kingdom £13,600 worth. The principal articles of export were sponges, oranges, salt, sisal fiber, grape fruit, pineapples, turtle shell, and timber. Owing to the low price of sisal fiber in the American and English markets, the whole sisal industry of the islands was in danger of complete collapse; but an improvement in price toward the end of the year served to avert the disaster. The mean temperature for 1897 was 79.4°, the rainfall 62.27 inches. The Governor of the colony is Sir Gilbert T. Carter.

Jamaica has an area of 4,193 square miles and a population estimated in 1897 at 706,394. The general revenue for the colony's financial year 1896-'97 was £591,864, and the general expenditure £629,764, showing a deficit of £38,000, which was covered by a surplus from the previous year's revenue of £78,117. Some of the principal items of expenditure were: Charges on debt, £82,417; education, £87,540; public works, £78,516. The public debt of the colony in 1897 was £1,787,479. The exports of the colony in 1896 were valued at £1,878,105, and the imports at £2,288,946. In 1897 the imports were valued at £1,856,878, of which £730,891 or 39.4 per cent. came from the United States; the exports at £1,470,241, of which £832,189 went to the United States. The great decrease in the trade of the island in 1897 amounting to 21.51 per cent. in the exports and 18.9 per cent. in the imports was attributable to a severe drought and the low price of the colony's products in the English and American markets. The principal articles of export are sugar, rum, fruit, coffee, and dyewoods. In 1897 they showed relatively to the value of the total exports thus: Fruit, 34.3 per cent.; coffee, 14.4 per cent.; dyewoods, 11.6 per cent.; sugar, 10.1 per cent.; rum, 8.4 per cent. The vital statistics show 15,535 deaths, or a rate of 22.1 per 1,000, and 27,064 births, or a rate of 38.5 per 1,000. Of the total deaths 46.7 per cent. were of children under five years. Of the births, 16,563 were illegitimate, a rate of 61.1 per 100. The criminal statistics show a daily average of 1,159 persons in jail. The total convictions for all offenses in 1897 numbered 16,665. There were 1 murder and 5 cases of manslaughter. There were 162 post offices in the island in 1897, and 67 telegraph stations. The number of letters and post cards passing through the post was 4,375,374. The number of passengers carried on the Jamaica railway in 1897 was 384,611. In 1896 1,167 East Indian indentured immigrants were imported as laborers. There are about 12,000 East Indians in Jamaica, and they constitute a most important factor in the productive efficiency of the colony. The Governor of the island in 1898 was Sir Augustus Hemming, who succeeded Sir Henry Blake, one of the most popular governors in the island's history. Early in September, 1898, a hurri-

cane swept over the island, doing great damage to property and to the crops. Turks and Caicos islands, dependencies of Jamaica, have an area of 223 square miles and a population of about 5,000. They are governed by a Commissioner and a legislative board. In 1897 the revenue was £9,477, and the expenditure £8,384. The exports were £48,303; the imports, £33,239. The Commissioner is Edward J. Cameron. The Caymans, small islands northwest of Jamaica, are also dependencies of that island. Their area is about 90 square miles, and their population 5,000. Cocoanuts and turtles are the principal articles of export.

Barbadoes has an area of 166 square miles and a population estimated at 190,000 in 1897. The death rate was 26.12, and the birth rate 88.7, in 1897; 7,197 births were registered, of which 3,897, or 54.15 per cent. were illegitimate. The apparently high death rate is due to infant mortality among the black population. The island is one of the most healthful places in the world, and possesses a delightful climate. The mean temperature in 1897 was 79.2°, the rainfall 65.09 inches. The revenue in 1897 was £184,706, and the expenditure £172,551. The public debt on Dec. 31, 1897, was £409,150. In 1896 the imports were valued at £1,048,887, and the exports at £758,228. In 1897 the imports were valued at £1,008,699, of which £321,908 worth came from the United States, and the exports at £736,162, of which £429,527 worth went to the United States. Sugar and molasses make up about 96 per cent. of exports. During the past three years an industry has sprung up in manjack, a kind of asphalt. Petroleum has also been discovered in the island, and attempts are being made to develop an oil industry. Although there was a falling off in the value of the exports in 1897, the amount of sugar and molasses was greater than in 1896. The low price of these products accounts for the decrease in value of the total exports. Early in September, 1898, Barbadoes, in common with several of the other West Indian islands, was visited by a destructive hurricane. About 10,000 houses were destroyed and more than 100 lives lost. The Imperial as well as the local Government took energetic measures to relieve the suffering of the houseless negroes, and a public fund was started at the Mansion House, London. The Governor of the colony is Sir James Shaw Hay.

The Leeward Islands, consisting of Antigua, Barbuda, Redonda, St. Kitts, Nevis, Anguilla, Montserrat, Dominica, and the Virgin Islands, have an area of about 740 square miles, and a population estimated in 1897 at 138,000. The colony is divided into five presidencies, the central Government having its seat in Antigua. The revenue in 1897 was £124,768, and the expenditure £140,926, showing a deficit of £16,158. The public debt was £335,621. In 1896 the imports were valued at £402,198, and the exports at £316,510. In 1897 the imports decreased to £312,657, of which £124,064 worth came from the United States; and the exports increased to £328,496, of which £223,150 went to the United States. The exports consisted of sugar (£236,209), lime juice and limes (£24,514), molasses (£12,506), rum, and coffee. The Governor of the colony is Sir Francis Fleming.

The Windward Islands consist of St. Lucia, St. Vincent, Granada, and the Grenadines, and have a total area of 506 square miles and a population estimated in 1897 at 154,743. The revenue in 1897 was £142,456, and the expenditure £143,157. The public debt was £338,849. In 1896 the imports were valued at £404,967; and the exports, at £339,260. In 1897 the figures were: For imports, £480,432, of which £102,007 (excluding St. Vincent, for which island returns are not available) came from the United States; and for exports £453,818, of

which £65,824 (excluding St. Vincent) went to the United States. The colony suffered severely in the hurricane of September, 1898. The principal articles of export are cocoa, spices, sugar, and arrowroot. The Governor of the colony is Sir Alfred Moloney.

Trinidad and Tobago, which form one colony, have a total area of 1,864 square miles, and a population estimated in 1897 at 252,544, of whom 83,032 were East Indians. Of this number about 10,000 were employed as indentured laborers on the estates in Trinidad, and the remainder were time-expired laborers and their descendants. In 1897 7,927 births and 7,091 deaths were registered. Of the births 59.2 per cent. were illegitimate; 25 per cent. of the deaths were of children under two years of age. The revenue in 1897 was £611,434, and the expenditure £622,364. The debt was £916,518. In 1896 the imports were valued at £2,463,525, and the exports at £1,896,748. In 1897 the imports were valued at £2,161,231, of which £450,664 worth came from the United States; and the exports at £1,994,926, of which £628,264 worth went to the United States. The principal exports were sugar (£537,107), cocoa (£532,123), asphalt (£138,801), and bitters (£40,106). The chief imports were live animals, food and drink (£1,328,502), and manufactured articles (£254,311). The mean temperature was 79.13°, and the rainfall was 77.68 inches. The figures for Tobago for 1897, which are included in those given above, were: Revenue, £8,107; expenditure, £8,386; debt, £9,203; imports, £11,656; exports, £4,968 (exclusive of £14,433 exports to Trinidad); population, 20,785. The Governor of the colony is Sir Hubert Jerningham.

British Guiana has an area of 109,000 square miles according to the latest Government returns; but until the settlement of the Venezuelan boundary dispute it remains doubtful whether this figure is too small or too large. The population in 1897 was estimated at 289,000, of whom about 110,000 are East Indians. Of this number about 18,000 were working as indentured laborers on the sugar estates. The revenue for the colony's financial year 1897-'98 was £505,369, and the expenditure £562,598, showing a deficit of £57,229. The imports in 1896 were valued at £1,341,710, and the exports at £1,899,457. In 1897 the imports were valued at £1,282,976, and the exports at £1,783,764. Of the imports £740,878 worth came from the United Kingdom, and £341,739 worth from the United States; of the exports £949,015 worth went to the United Kingdom, and £704,596 worth to the United States. The principal articles of import were rice (£95,933); flour (£139,107); linen, cotton, and woolen goods (£156,120). The principal articles of export were sugar (£1,023,523), gold bullion (£456,436), rum (£132,586). The attempt in 1896 to establish a rice industry has met with little success, and sugar still gives employment directly and indirectly to about 80 per cent. of the population. In 1897 the colony had 21 miles of railway open, 272 miles of telegraph line, and 39 miles of telephone line. In 1898 the exports of sugar increased from 99,789 tons in 1897 to 106,000 tons; but the increase was not due to increased yield, but to the fact that about 15,000 tons of sugar remained over from 1897. The export of gold showed a considerable decrease in 1898, the figures for that and the three previous years being 1895, 122,023 ounces; 1896, 124,713 ounces; 1897, 122,702 ounces; 1898, 113,000 ounces. This falling off in an industry which it is hoped will help to tide the colony over its present financial difficulties was due in a large measure to unfavorable weather in the gold regions, both very dry weather and very wet weather making it impossible to work the placers. In addition

to this must be mentioned the absence of capital for the working and development of the quartz mines, and the indecision about the boundary. The Governor of the colony is Sir Walter J. Sendall.

British Honduras, on the mainland of Central America, has an area of 7,562 square miles, and a population estimated in 1897 at 34,277. The revenue in 1897 was £84,613, and the expenditure £66,459. The debt was £34,736. The value of the imports in 1897 was £292,613, and of the exports £288,969. The mean temperature in 1897 was 78°, the rainfall 87.9 inches. The chief articles of export are mahogany and logwood. The Governor is Col. David Wilson.

French Colonies.—These have a total area of 48,067 square miles, and a population of 393,692.

Guadeloupe has an area of 583 square miles, and a population estimated in 1897 at 170,000. The dependencies of Guadeloupe are Désirade, Isles des Saintes, Petite-Terre, Marie-Galante, St. Barthélemy, and part of St. Martin. They have a total area of about 103 square miles, and a population of 24,000. In 1896 the imports were valued at 21,762,773 francs, of which 5,376,645 francs' worth came from the United States; and the exports at 18,793,995 francs, of which only 16,298 francs' worth went to the United States. The trade of the colony is chiefly with France.

Martinique has an area of about 400 square miles, and a population estimated at 190,000. The imports in 1896 were valued at 22,885,505 francs, of which 9,430,648 francs' worth came from France, and 7,002,303 francs' worth from the United States. The exports were valued at 21,431,026 francs, of which 19,326,309 francs' worth went to France, and 32,348 francs' worth to the United States. The principal articles of export were sugar and cocoa. An attempt has been made recently to cultivate indigo, but it has met with little success.

French Guiana has an area of about 47,000 square miles, and an estimated population of 26,000. The trade of the colony is insignificant. In 1896 101,938 ounces of gold were exported. There is a dispute as to the boundary with Brazil, and some fighting was reported early in 1899.

Dutch Colonies.—These have a total area of 46,496 square miles, and a population of 118,539. Curaçoa and its dependencies, Bonaire, Aruba, St. Eustache, Saba, and part of St. Martin, have a total area of about 436 square miles, and an estimated population of 49,000. The imports in 1896 were valued at 3,000,000 guilders. The value of the exports is not given in the statistics published by the Dutch Government.

Dutch Guiana or Surinam, which is on the mainland of South America, has an area of about 46,000 square miles, and a population estimated at 68,000. The revenue in 1897 was 2,245,498 guilders, and the expenditure 2,245,498 guilders. The imports were valued in 1896 at 5,335,180 guilders, and the exports at 4,391,728 guilders. An interesting report on the gold industry of Dutch Guiana was issued by the British Foreign Office in 1897. It appears to justify the opinion which has been expressed by experts that with better methods of mining, and with the country more liberally opened up, a considerable development of the Surinam gold industry may be looked for.

Danish Colonies.—The Danish West Indies have a total area of 142 square miles, and a population of 32,819. They consist of the islands of St. Thomas, St. Croix, and St. John. The imports in 1896 were valued at 1,306,000 kroner, and the exports at 680,000 kroner (a kroner is about equal to 26 cents). As no official returns are available, the figures relating to the value of imports and exports are only estimates.

WEST VIRGINIA, a Southern State, admitted to the Union June 19, 1863; area, 24,780 square miles. The population, according to each decennial census, was 442,014 in 1870; 618,547 in 1880; and 762,749 in 1890. Capital, Charleston.

Government.—The following were the State officers during the year: Governor, G. W. Atkinson; Secretary of State, William M. O. Dawson; State Superintendent of Free Schools, J. R. Trotter; Auditor, L. M. Lafollette; Treasurer, M. A. Kendall; Attorney-General, Edgar P. Rucker; Librarian, P. S. Shirkey; State Bank Examiner, O. B. Wetzel; Adjutant General, J. W. M. Appleton; Commissioner of Labor, I. V. Barton; Chief Mine Inspector, J. W. Paul; Game and Fish Warden, Frank Lively—all Republicans; Presiding Judge of the Supreme Court of Appeals, John W. English; Associate Judges, Marmaduke H. Dent, Henry Brannon, and H. C. McWhorter; Clerk, O. S. Long—all Democrats except McWhorter, Republican.

Finances.—The receipts for the year ending Sept. 30, 1898, were \$1,824,624.07: State fund, \$1,280,925.10; the general school fund, \$436,534.75; the school fund, \$107,164.22. The disbursements were \$1,544,403.09: State fund, \$1,104,032.31; general school fund, \$385,337.90; school fund, \$55,032.88. The balance in the treasury Oct. 1, 1897, amounted to \$782,639.50; in 1898, to \$1,062,860.48. The Governor borrowed from different banks in the State the sum of \$28,000, to meet the necessary expenses in furnishing two regiments of volunteer soldiers called for by the President to meet the emergency of the Spanish war. From the Treasurer's biennial report of October, 1898, we quote the following: "The improvement during the last two years has been very gratifying. The balance in the State fund at this season of the year is unprecedented, and this is all the more gratifying because of the fact that there are few deficiencies to provide for. The total balance in the treasury to the credit of the three funds is \$1,062,860.48. This is available cash, subject to check, and the depositories are paying interest on it at the rate of 3 per cent. per annum. This amount is divided as follows: To the credit of the State fund, \$424,641.17; to the credit of the general school fund, \$367,026.10; to the credit of the school fund (uninvested), \$271,193.21. In addition to this the amount of the school fund invested is \$656,800. The amount disbursed for school purposes during the last two years was greater than ever before, and the school fund has been increased nearly \$100,000."

The annual tax imposed upon the railroads of the State amounted to somewhat more than \$400,000.

Banks.—There are 74 State banks, 2 more are being organized, and 2 have gone into voluntary liquidation since 1897. The report on the condition of the banks Sept. 30, 1898, gave the total resources as \$18,801,206.24. The principal items were: Loans and discounts, \$12,336,379.43; overdrafts, \$92,130.67; real estate and mortgages owned, \$134,316.40; stocks and bonds, \$1,172,322.81; due from banks, \$2,311,974.64; cash and cash items, \$1,502,639.21. The principal items in the liabilities were: Capital stock paid in, \$3,543,672.13; dividends unpaid, \$9,289.70; undivided profits, \$648,578.41; deposits, \$13,069,263.84; bills payable and rediscounts, \$95,825.22; due to banks, \$676,078.79.

The aggregate capital paid in of all State banks on this date (Sept. 30, 1898) shows an increase over 1897 of \$91,261.60. The aggregate deposits of this year show an increase over 1897 of \$1,863,309.58, while the total loans and discounts of 1898 show an increase of but \$1,482,955.79.

Insurance.—The number of companies admitted in the two years was as follows: Fire and

fire-marine, 79 in 1897 and 86 in 1898; life (legal reserve), 36 in each year; assessment, 23 in 1897 and 22 in 1898; fidelity, guarantee, and surety, 1 in each year; miscellaneous, 13 in 1897 and 14 in 1898; total in 1897, 152, in 1898, 159. The following is quoted from the Auditor's report: "The amount of taxes on premium receipts paid into the State treasury during the fiscal year 1897 was \$22,880.90, and \$23,997.18 for 1898. The receipts from assessment insurance companies (which pay a tax of \$20 on certificate of authority) amounted to \$440 for 1897 and \$460 for 1898. This gives an aggregate of \$23,320.90 paid into the State treasury by insurance companies during the year ending Sept. 30, 1897, and \$24,457.18 during the year ending Sept. 30, 1898.

In 1896 the fire and marine companies wrote risks to the amount of \$32,182,295.56, received premiums to the amount of \$426,169.11, and incurred losses to the amount of \$188,906.22. The life companies (legal reserve) wrote risks to the amount of \$7,610,053.35, received premiums to the amount of \$726,103.83, and incurred losses to the amount of \$215,116.56. The miscellaneous companies wrote risks to the amount of \$10,734,771.85, received premiums to the amount of \$47,791.66, and incurred losses to the amount of \$28,404.36.

In 1897 the fire and marine companies wrote risks to the amount of \$47,460,791.08, received premiums to the amount of \$609,588.09, and incurred losses to the amount of \$348,397.63. The life companies (legal reserve) wrote risks to the amount of \$9,661,665.30, received premiums to the amount of \$787,953.01, and incurred losses to the amount of \$293,278.55. The fidelity, guarantee, and surety companies wrote risks to the amount of \$65,700, and received premiums to the amount of \$525. The miscellaneous companies wrote risks to the amount of \$11,133,052.17, received premiums to the amount of \$51,127.68, and incurred losses to the amount of \$17,089.01.

State Institutions.—The superintendent of the Weston Insane Asylum says that the appropriation for the past two years for current expenses—\$130,000 for each year—is not sufficient to carry on properly the institution for the number of employees and patients it now has. "We have about 75 more patients and 8 more employees than we had a year ago. The number of patients is 1,021, and we also have 170 employees." The institution has this year a new laundry at a cost of \$20,000, on which remains an unpaid balance of \$9,975. The colored hospital has been remodeled, at a cost of \$1,850. Two Sterling water-tube boilers, of 250 horse power each, were purchased at a cost of \$4,100, half of which amount remains unpaid. The electric light plant cost \$4,600. The second hospital for the insane admitted in the year 155 patients, being a greater number than in any previous year. There were discharged as recovered 63, which exceeds previous years; while the death rate was very low, being 5.9 per cent. on the whole number treated. The number remaining in hospital Oct. 1, 1898, was 311.

The State Penitentiary has about 557 inmates. The Legislature did not appropriate sufficient funds for its support, so the Board of Public Works borrowed \$10,000 to meet the deficiency. It is nearly on a self-supporting basis.

The Boys' Reform School in the past year has admitted 100 boys and discharged 59. There are at present 200 inmates, 29 of whom are colored. Instruction is given in farming and mechanics, the reform school board having purchased a 53-acre farm, including a brick residence, for the use of colored boys. The new purchase adjoins the present property, and part of it is underlaid with

coal. A Reform School for Girls is being erected, for which the last Legislature voted a small appropriation, and the citizens of Salem gave 38 acres of land and drove a well for the institution. The Legislature has provided for the establishment of a Home for Incurables. It is to be at Huntington, will cost \$200,000, and will accommodate 1,000 patients.

Education.—The State has 5,940 common schools, their total value, buildings and grounds, amounted in 1898 to \$3,065,848.25. The expenditure for the year was \$1,960,418.54. The State School Superintendent in his report says: "For the school year ending June 30, 1898, the total enumeration was 302,354, an increase of 1,825 over the previous year, and of 45,994 over 1888. Of the number enumerated, 158,527 (or 52.4 per cent.) were in actual daily attendance, while in the previous year and in 1888 the per cent. was only 44.3 and 47.6 respectively. The large per cent. of attendance in 1898 is due almost entirely to the compulsory attendance law, passed in 1897, which requires all children between the ages of eight and fourteen to attend school at least sixteen weeks each year. The whole number of teachers employed during the year was 6,806, an increase of 156 over the preceding year, and of 1,570 in ten years. Of these, 4,096 were men and 2,712 were women. The enrollment for the year was 236,935. The average number of pupils for each teacher was 34.8. As the average length of term for 1898 was 5 $\frac{1}{2}$ months, and the average salary \$29.21 a month, the approximately average yearly salary was \$165.09."

The school libraries contain 13,448 volumes.

There are 7 normal schools in the State.

The West Virginia University had 874 students in the year 1897-'98, an increase of 309 over the previous college year.

The United States Government appropriates \$5,000 annually toward the support of the West Virginia Colored Institute. From this fund its president and 4 instructors in mechanics and farming are paid, and also all purchases for these departments are made. The school has a regular cadet company, which is armed and uniformed by the State. The boys' department is overcrowded, and the Governor in his message recommends that an appropriation be made to enlarge the main building.

Industries.—On Jan. 1 the Commissioner of Labor, I. V. Barton, sent out 1,200 letters to that number of manufacturers in West Virginia, asking for information as to any additional employees, increases or restorations of wages, or any changes in business since Jan. 1, 1897. Twelve questions were asked. Of the letters received about 80 per cent. report an increase of labor employed, or an average of 40 per cent. since Jan. 1, 1897. The wage increases were confined chiefly to the coal miners, and otherwise there are few advances to record. There were a few reductions during the first six months of last year, but there were none in the last six months. Several restorations of reductions made some time previous occurred during the year, and are almost on a par with an increase. The industries of West Virginia include steel and iron making, lumbering, mining, marble and stone quarrying, glass and woolen making. The woolen industry gives employment to 5,000 people, 900 of whom are employed at the knitting factory at Martinsburg.

Political.—In the election for members of Congress the Republicans carried the First, Second, and Fourth Districts, and the Democrats the Third.

The Legislature for 1899 stands: Republicans, 17 in the Senate and 34 in the House; Democrats, 9 in the Senate and 37 in the House. Nine seats are contested.

WISCONSIN, a Western State, admitted to the Union May 29, 1848; area, 56,040 square miles. The population, according to each decennial census since admission, was 305,391 in 1850; 775,881 in 1860; 1,054,670 in 1870; 1,315,497 in 1880; and 1,688,880 in 1890. By the State census of 1895 it was 1,937,915. Capital, Madison.

Government.—The following were the officers of the State in 1898: Governor, Edward Scofield; Lieutenant Governor, Emil Baensch; Secretary of State, Henry Casson; Treasurer, Sewell A. Peterson; Attorney-General, William H. Mylrea; Superintendent of Public Instruction, John Q. Emery; Railroad Commissioner, Duncan J. McKenzie; Insurance Commissioner, William A. Fricke, resigned, and succeeded in October by Emil Giljohann—all Republicans; Adjutant General, C. R. Boardman; Clerk of the Land Commission, E. Wyman; Labor Commissioner, H. Erickson; Factory Inspector, H. P. Fischer; Dairy and Food Commissioner, H. C. Adams; Bank Examiner, E. I. Kidd; Fish and Game Warden, J. T. Ellarson; Board of Arbitration, R. O. Jeardeau, R. H. Edwards, Thomas Waddell; Board of Control, James E. Heg, succeeded in April by N. B. Treat, Richard Guenther, William P. Lyon, E. R. Petherick, Clarence Snyder; Chief Justice of the Supreme Court, J. B. Cassoday, Republican; Associate Justices, Silas U. Pinney, Democrat, who resigned in November, and was succeeded by Joshua E. Dodge, Democrat, John B. Winslow, Democrat, Alfred W. Newman, Republican, who died Jan. 12, and was succeeded by Charles V. Barden, Republican; Clerk, Clarence Kellogg.

Finances.—The total receipts of the treasury during the year ending Sept. 30 were \$5,274,121.18, and the disbursements \$4,525,160.39. The receipts of the general fund were \$2,971,140.72, and of these the largest item was license fees from railway companies, \$1,247,357. The balance remaining Sept. 30 was \$201,042.86.

The bonded debt of the State, created in 1861-'65 for war purposes, has all been paid or converted into certificates of indebtedness to the trust funds, except \$1,000, which was paid from the general fund Aug. 13, 1888. The distribution of the debt among the funds is: School fund, \$1,563,700; Normal School fund, \$515,700; University fund, \$111,000; Agricultural College fund, \$60,600; total, \$2,251,000.

The valuation of taxable property by the State board gave a total of \$600,000,000. The State tax was \$1,492,570, the total of special charges for State and county institutions was \$216,628.37, special loans amounted to \$108,823.03, and school district loans to \$100,753.29, making a total of \$1,918,779.69. The total of town, city, village, and county taxes was \$14,818,899.23.

Education.—The school population in 1898 was 708,535; the enrollment in public schools, 430,827; the number of schoolhouses, 6,940; teachers, 12,465. There were 152 free high schools with courses of four years and 57 with courses of three years. The receipts for the year were \$6,747,316.64, including \$1,437,372.86 on hand at the beginning of the year, and the disbursements \$5,290,506.40.

The enrollment of normal pupils in the 7 normal schools was 2,797. These schools have graduated in all in the advanced course, 2,180, and in the elementary 1,208. The receipts were \$351,449.20, and the disbursements \$340,623.31.

The students in the several colleges and schools of the State University numbered 1,767, of whom 947 were in the College of Letters and Science, which includes the School of Economics, Political Science and History, and the School of Education. There were 227 in the College of Mechanics and Engineering, 277 in that of Agriculture, 182 in the

College of Law, 61 in the School of Pharmacy, and 141 in the School of Music. The attendance has increased very nearly 500 in four years. The receipts for the year, including the balance on hand Sept. 30, 1897, of \$31,372.03, were \$478,706.69, and the expenditures \$449,330.16.

Charities and Corrections.—There are 309 men and 157 women at the Soldiers' Home, at Wau-paca, which is operated at a cost of about \$40,000 a year.

At the Delavan School for Deaf-Mutes 104 boys and 97 girls are taught. The cost averages about \$200 a year for each.

The Institution for Imbeciles, near Chippewa Falls, has 347 inmates.

The insane are cared for at two hospitals; 922 were under treatment Oct. 1, 1896. The current net expenses for both institutions amount to about \$213,000.

The School for the Blind, at Janesville, had an enrollment of 103 Oct. 1, 1896. The net expenses amounted to \$35,956.42.

The School for Dependent Children, at Sparta, had 237 in attendance Sept. 30, 1896. The current expenses were \$46,759.

There were 532 inmates in the State Prison at the same date. The cost of maintenance *per capita* is about 32½ cents a day.

There were 328 boys at the Industrial School, at Waukesha, at that time, and the expenses amounted to \$61,192.83.

A new reformatory, intended for first offenders, has been established at Green Bay, for which the Legislature of 1897 appropriated \$75,000.

Military.—The number of men furnished by the State for the Spanish war was 5,469—four regiments of infantry and a battery. The number of deaths among them is unofficially given as 131. The expenses for their pay, etc., amounted to \$88,191.90.

The expenses of the militia were less this year than usual, as there was no encampment; they amounted to \$43,354.87.

During the past biennial term 1,204 new claims for civil-war pensions have been entered; 554 have been settled, of which 311 were allowed and 243 rejected; 125 of those rejected were for increase.

Insurance.—The report of the Insurance Commissioner, rendered in March, covers the business of 1897. It shows 153 fire and marine companies operating in the State, an increase of 33 since Jan. 7, 1895.

During this period (1895-'98) 10 companies applying have been refused license, of which 5 have since failed, 3 reorganized, and 2 refused on purely legal ground are still in business. No company has failed during this time while licensed by the present Commissioner.

The amount written in Wisconsin by stock and mutual fire companies during the year 1897 was \$292,895,316.46, for which \$4,218,523.33 were received as premiums and upon which \$1,600,544 were paid for fire losses, making the ratio of losses to premiums received 37.94 per cent.

An insurance suit of great importance to the State and the companies was decided March 1. The Commissioner threatened to revoke the license of the Travelers', of Hartford, unless back taxes which he claimed were due from it should be paid, and the company brought suit for an injunction to restrain him from so doing. The company had a license for life business, but the greater part of its transactions were in accident insurance; and for this the company procured no license, claiming that the whole business was covered by the license it had. The Supreme Court decided against the company on this question and on the further claim

for back taxes for the years the company had done business in the State without the accident license. The amount involved was about \$104,000. Other companies are affected by the decision. The receipts of the department in 1897 were \$166,075.

Banks.—The number of State banks in 1898 was 133, an increase of 3; private banks, 114, an increase of 4. There is but one savings bank, which is at Beloit, though some of the others have a savings department. All of these have an aggregate capital of \$7,944,413.38, deposits of \$42,721,155.03, and resources of \$55,023,310.48.

The aggregate increase in resources over those of 1897 is \$8,429,770.20; loans and discounts, \$4,267,576.72; deposits, \$8,331,414.33; and available cash, \$1,766,887.42. The increase in the items, resources, loans and discounts, and deposits is by far the largest that has been made in any previous equal length of time in the history of the State.

Building and Loan Associations.—A decision important to shareholders was rendered in January. A Minneapolis association which went into the hands of a receiver had securities amounting to about \$100,000 on deposit with the Wisconsin State Treasurer as security for Wisconsin shareholders, but the receiver claimed them as part of the general assets. The Supreme Court decided that they should be used solely for the benefit of the Wisconsin shareholders.

There are 53 of these associations doing business in the State, all domestic. Their liabilities and assets aggregate \$3,568,440.

Labor.—The Labor Commissioner's report shows that during the two years past 1,292 changes have been ordered, of which 1,021 affected the conditions in factories and workshops, including the dismissal of 327 children under fourteen illegally employed. A table relating to all industries gives the following figures for 1897: Capital invested, \$189,760,669; value of goods made and work done (gross product), \$169,946,673; value of stock and other materials used, \$98,130,070; industry product (gross product less value of stock and materials), \$71,816,608; wages (labor's direct share of product), \$36,583,044; profit and minor-expense fund (industry product less wages), \$35,233,559; percentage of industry product paid in wages, 50.94; percentage of industry product devoted to profit and minor expenses, 49.06.

Products.—The wheat crop of the State in 1898 is given as 11,885,000 bushels; the wool clip as 4,475,952 pounds.

The shipments of iron ore from Marquette aggregated 2,278,000 tons, an increase over 1897 of 232,500 tons.

The fisheries department during the season of 1897 made distribution of 60,685,920 fish.

Political.—State officers were elected in November.

The Republicans assembled in State convention in Milwaukee, Aug. 17. On national affairs the resolutions approved the Administration, the conduct of the war, and the St. Louis platform. On State affairs they approved the Administration and called for the following measures: Laws "to compel all persons and corporations engaged in business within the State, except such fraternal and other associations as are now expressly exempted from taxation by law, to contribute their just and equal share toward the burden of taxation"; to forbid the issue to public officials of passes, franks, or privileges of free transportation of personal property or messages, and making the giving or receiving of any such a penal offense; amendment of the caucus and convention laws; prohibition of advance payments from the State treasury on account of salaries of officers and employees; and abolition of the lobby at the Legislature by law.

The ticket follows: For Governor, Edward Scofield; Lieutenant Governor, Jessie Stone; Secretary of State, William H. Froehlich; State Treasurer, James O. Davidson; Attorney-General, Emmet R. Hicks; State Superintendent, L. D. Harvey; Railroad Commissioner, Graham L. Rice; Insurance Commissioner, Emil Giljohann; Chairman State Central Committee, Joseph B. Treat.

The State Democratic Convention met in Milwaukee, Aug. 31. A committee was appointed to confer, with a view to fusion, with a committee of the Populist convention, which was in session at the same time. The committee reported in favor of giving to the Populists the nomination of the Superintendent of Public Instruction, and a resolution was offered proposing to add the Secretary of State, but the whole plan of fusion was defeated by a vote of 361 to 294.

The platform approved the war and praised the soldiers and sailors; condemned the War Department "for the blunders and crimes committed against the brave boys in blue in camp and on foreign battlefields by selfish contractors, incompetent surgeons, and vain, heartless army officers, appointed for political purposes"; and pledged to the sailors and soldiers who should survive this war "earnest and loyal support to secure the punishment of the guilty parties."

On State matters it made nine charges against the Republican party; among them were: The carrying upon the pay roll of clerks and employees who rendered no service; the vetoing by the Governor of legislation imposing restrictions or obligations upon corporations; violation of a promise not to remit judgment in the treasury cases; payment of salaries before they became due; loaning of money from the treasury without security and without authority of law.

Hiram W. Sawyer was nominated for Governor; P. V. Deuster for Lieutenant Governor; and Messrs. Stromme, Malek, Grace, Schindler, and Wilcox for the offices of Secretary of State, Treasurer, Attorney-General, Insurance Commissioner, and Railroad Commissioner respectively.

The Populists in convention nominated, Sept. 1, John F. Schindler for Secretary of State and E. C. Craig for Superintendent of Public Instruction, and then took a recess to await the outcome of the conference for fusion; this having failed, they placed a full ticket in the field.

The Socialist-Labor and Socialist-Democratic parties also nominated candidates.

At Oshkosh, Aug. 26, the Prohibitionists in State convention adopted a platform with the following, among other statements:

"Believing that many reforms are imperatively needed in our State relating to equal taxation, ownership, regulation, taxation, and control of monopolies; the abolition of the free-pass and frank system of bribing county officials; reduction in the cost of State, county, city, and town government; and that as the purchasable saloon vote is the one great hindrance to the election of honest men to deal with these questions, we demand prohibition.

"We demand that all territory hereafter acquired by as well as that lately annexed to the United States shall be under prohibition; that we put upon our banner, never to be taken down, the motto, 'No more saloon territory.'"

The candidates chosen were: For Governor, E. W. Chapin; Lieutenant Governor, W. W. Cooper; Secretary of State, E. S. Cronk; Treasurer, William Larsen; Attorney-General, Wesley Mott; Superintendent of Schools, Edward Berg; Railroad Commissioner, George Clithero.

The election resulted in the choice of the Repub-

lican candidates. The Governor, who was the only officer renominated, fell behind his ticket about 7,000. The vote for Governor stood: Scofield, Republican, 173,137; Sawyer, Democrat, 135,335; Worsley, Populist, 8,577; Chapin, Prohibitionist, 8,078; Tuttle, Socialist-Democrat, 2,544; Riese, Socialist-Labor, 1,473. All the Republican candidates for Congress were elected, and Republicans have a majority of 91 in the Legislature.

An act to revise the laws authorizing the business of banking, passed by the Legislature of 1897 with the provision that it should be submitted to popular vote, was rejected at the election. It provided for important changes in the banking laws, with a view to greater protection against loss and misappropriation of funds, and for the creation of the office of Commissioner of Banks.

Judicial.—The constitutionality of the election law providing that no name shall appear more than once on the official ballot was attacked, but was upheld by a decision of the Supreme Court in September.

The law providing for additional restrictions regarding preferences, etc., in cases of insolvency was declared by the same court unconstitutional in so far as it was made applicable to notes and warrants of attorney, and judgments and executions to enforce the same, given more than sixty days before an assignment for the benefit of creditors.

The law requiring examination for plumbers was declared unconstitutional, in February, in the Milwaukee Superior Court. A plumber to whom a license was refused assailed in court the reasonableness of the requirement that journeyman plumbers must be experts in house drainage and plumbing ventilation. The court pronounced this requirement unreasonable. It also held that the provision that any member of a firm or corporation, by passing the examination, shall satisfy the requirement of the law as to such firm or corporation, is not in accordance with the principle that legislation of this sort shall treat all persons alike under like circumstances and conditions.

Semicentennial Celebration.—Wisconsin celebrated this year the fiftieth anniversary of its admission to the Union. Local celebrations took place at the county seats, May 28. The official celebration was held in Madison, June 7 to 9 inclusive. The principal events were a parade of the university faculty and students, orations and addresses at the armory, reunions of veterans, former members of the Legislature, State officials, and members of constitutional conventions, a procession of veterans, meetings of bar and press associations and women's organizations, displays of fireworks, band concerts in Capitol Park, conventions of pioneers, historical societies, and others, and, on the closing afternoon, a war-song concert, by a chorus of 400 adult voices and 500 school children with a military band.

Milwaukee held a carnival in the week from June 27 to July 3. The programme was arranged so that the successive days were known as reception day, military day, municipal, industrial, carnival, and naval day.

WYOMING, a Northwestern State, admitted to the Union July 10, 1890; area, 97,890 square miles. Population in 1890, 60,705. Capital, Cheyenne.

Government.—The following were the State officers during the year: Governor, W. A. Richards; Secretary of State, Charles W. Burdick; Treasurer, Henry G. Hay; Auditor, William O. Owen; Adjutant General, Frank A. Stitzer; Attorney-General, B. F. Fowler; Superintendent of Education, Estelle Reel—all Republicans. Supreme Court—Chief Justice, A. B. Conaway, Republican; Associate Justices, Samuel T. Corn, Democrat, and C. N. Potter, Republican; Clerk, R. H. Repath.

Finances.—According to the Treasurer's report the receipts for the year ending Sept. 30, 1898, from all sources amounted to \$274,581.61. The total disbursements were \$263,290.97. The balance in the treasury Oct. 1, 1897, was \$92,495.05; on Sept. 30, 1898, it was \$103,785.69.

The larger items of revenue were: Secretary's fees, \$8,912.95; care of patients at State Hospital, \$6,260.69; common school land income fund, \$13,140.83; State charitable, educational, penal, and reformatory institutions land income fund, \$9,624.92; and Agricultural College land income fund, \$3,572. The chief items of expenditure were: General fund, \$119,127.82; university income tax, \$7,043.69; State bond tax, \$19,140; fund for the insane, \$15,486.29; Rawlins Penitentiary Building tax, \$3,075.23; hospital maintenance tax, \$9,696.82; charitable institutions tax, \$6,723.21; common school land income fund, \$12,617.55; State Hospital insurance fund, \$14,696.34; common school land income fund, \$12,144.64; common school permanent land fund, \$5,768.35. The total bonded indebtedness of the State was \$320,000. The Auditor's statement showing the valuation for State revenue as made to the several counties by the State Board of Equalization gives for the year 1898 the following figures: The County of Albany, \$3,941,635.07; Big Horn, \$1,006,872.25; Carbon, \$3,508,478.05; Crook, \$1,443,242.84; Converse, \$1,540,608.75; Fremont, \$1,242,661; Johnson, \$1,152,983; Laramie, \$5,595,281.93; Natrona, \$1,161,308.50; Sheridan, \$1,917,353.51; Sweetwater, \$3,750,118.03; Uinta, \$3,420,704.26; Weston, \$1,107,444.55; total, \$30,789,291.74.

Insurance.—In the year ending Dec. 31, 1897, there were 44 insurance companies doing business in the State. Their total amount of written insurance was \$5,738,940.40; premiums received, \$121,773.27; losses paid, \$34,242.53; losses incurred, \$35,169.04. There were 10 life insurance companies doing business in the State in 1897. The amount of insurance in force at the beginning of that year was \$4,189,412.94; the amount issued was \$552,786; that terminated amounted to \$611,592; that in force Dec. 31, 1897, \$4,130,606.94. Amount of claims paid during the year, \$23,811.70. Premiums collected, \$126,731.11. The accident and miscellaneous insurance companies number 10. Their claims paid in 1897 amounted to \$1,849.90; premiums collected to \$3,930.10. Six assessment life insurance companies did business to the amount of, claims paid, \$1,792.94; claims incurred, \$1,792.94. Three building and loan associations had 8,151 shares in force.

Education.—The number of public schools taught during the year ending Sept. 30, 1898, were 495. Pupils enrolled, 13,042; of these 6,643 were males, 6,399 females. The average cost of tuition per month amounted to \$3.07. The total number of teachers for the year, 536—434 being females and 102 males; the average compensation to the latter was \$60.40, to the former \$42.86. There are 338 school buildings in the State, the cost of these for the year



DE FOREST RICHARDS,
GOVERNOR OF WYOMING.

amounted to \$236,600.70. All but one have books, the total number of volumes being 4,240. There has been an increase in the number of children attending the school, in the number of teachers employed, a lengthening of the terms, improved attendance, and more money than formerly spent for the maintenance of the schools. The State University, situated at Laramie, enrolled the past year 186 students, which is the largest number it has ever had. The receipts for the year were \$54,923.43; its expenditures, \$41,974.22.

From the annual report of the College of Agriculture we quote the following: "The expenditures were this year larger than ever before. Most of this increased expenditure went for new apparatus and better facilities in the laboratories. The accession of books is very marked, and the amount spent in this direction will from year to year be rather increased. Numerous machines and a tool room have been added to the department of mechanical engineering. A commodious wing for increasing the room to be devoted to foundry work was built on the Mechanical Building in the summer of 1897. The greenhouse was also enlarged by the addition of a wing greater than the main portion of the building. Notwithstanding the growth of about 50 per cent. last year, the increased attendance in all departments of the university this year has been great. The institution as a whole has grown nearly 20 per cent."

The total sum available for the year ending June 30, 1898, was \$30,017.26; the amount expended was \$21,017.45, leaving a balance of \$8,999.81. There were 19 students, one of whom was a woman. The report gives the following statement of the college property for the year ending June 30, 1898: Value of all buildings, \$102,000; of other equipment, \$45,000; number of acres, 356; acres under cultivation, 180; acres used for experiments, 180; value of farm lands, \$9,540; number of bound volumes, June 30, 1898, 5,750; pamphlets, 4,000.

State Lands.—The State Board of Land Commissioners in their biennial report say: "A comparison with the report of the Register submitted two years ago shows an increase in the business of leasing lands belonging to the State. The total number of leases has increased 154 per cent.; the number of acres leased, 127 per cent.; and the annual rentals, 141 per cent. Much of this increase is due to the selection of additional State lands, which are leased as fast as selected. But the real increase of demand, showing the tendency of the people to fence and control their grazing land, is probably best shown by reference to the tables of common-school land under lease now and two years ago. During that period the number of leases has increased 61 per cent. The success of the management of State lands in the manner in which it is now conducted by the board—that is, of leasing small tracts to adjacent settlers—seems well assured. The very large demand for such lands, several times what the State is able to supply, is sufficient evidence of the advantage to the people. This demand has suffered no diminution in spite of the fact that applicants themselves have placed the rental at a figure which is somewhat higher than what it was believed it should be for a fair profit to the lessees."

The number of leases Sept. 30, 1898, was 1,448; number of acres, 888,613.57; valuation, \$748,592.64; average value per acre, \$84; annual rental, \$37,431.40.

Valuations.—The Board of Equalization, in their report for 1898, says: "While we find, during this period, an increase in the valuation of railroad property, land and improvements on land, and farming utensils and mechanics' tools, yet the larger part of our increased valuation has come from the increase

in valuation of cattle and sheep, and our greatest loss has been the decrease of \$440,000 in the assessed valuation of horses. While the number of horses returned for taxation has increased about 10 per cent., the total valuation has fallen about 38 per cent. and the average valuation 37 per cent. The number of cattle has decreased 6½ per cent. since 1895, while the value has increased 38 per cent. since 1895 and 56 per cent. since 1893, giving an increased valuation for assessment purposes of almost \$900,000. The number of sheep has increased 35 per cent., while the total valuation has increased 65 per cent., making an increase in the valuation of \$1,150,000. Since 1893 the number of sheep has increased more than 100 per cent.; the total valuation has increased 92 per cent. The removal of duty on wool caused an actual loss of \$2.50 per head in valuation of Wyoming ewes, and a loss of 43 cents per head in the average assessed valuation of all sheep. This loss is now being regained, the average assessed value being \$1.82 per head, against \$1.97 per head in 1893. Wyoming stands eighth in the list of sheep-owning States, fifth in regard to the gross amount of wool produced, and seventh in regard to the yield of scoured wool." A comparison of the total valuation of all kinds of property in 1895 with that of 1898 shows a net gain of \$950,352.95.

State Prison.—The State Board says, in its annual report: "The percentage of increase in the number of convicts under the care of the State for the past year has more than kept pace with that of former years." The average daily number in the year ending Nov. 30, 1898, was 136.11; the net cost for the year, \$23,508.08; the daily *per capita*, 44.3 cents. Of the 51 prisoners discharged during the year, 42 were discharged by reason of expiration of sentence and without pardon, 5 were pardoned prior to expiration of sentence, 1 was pardoned on completion of sentence for the purpose of restoring him to citizenship, 1 was released upon writ of *habeas corpus*, and 2 escaped. No deaths occurred during the year. A new penitentiary building has just been completed at Rawlins.

Charities.—The new building of the Wyoming General Hospital was completed and the work was accepted May 4, 1898, and the building was occupied by the hospital management about May 15. The cost of the building, ready for occupancy, was \$16,065.37. The amount realized from insurance on the old building and appropriated for the reconstruction of it was \$15,000. The hospital is now conceded to be one of the best equipped and best managed of any in the West. The patronage very largely increased during the year, and the results attained were highly satisfactory. The expense of maintenance was necessarily increased with the increase in number of patients and the inevitable extra expense connected with the establishment of the hospital in its new quarters. The earnings, however, show a marked increase over those of former years. The total days' attendance of patients for the year ending Sept. 30, 1898, was 7,236—an average daily attendance of 19.8—and the statement of earnings, without any allowance for uncollected accounts, shows them to have been \$8,431.60. The amount received in the State treasury for care and treatment of patients at the hospital was \$6,260.69.

The Superintendent of the Hospital for the Insane says, in his report: "The number of patients at the date of the last report, Oct. 1, 1897, was 68—48 men and 20 women. The number since admitted is 28—22 men and 6 women. The whole number under treatment during the year was 96—70 men and 26 women; the daily average having been 72.9. Of these 11 were discharged as recovered, 1 as improved, and 7 have died. There are remaining at

the date of this report 77—55 men and 22 women. The number of admissions the past year has greatly exceeded that for any previous year."

The total expense of the hospital for the year was \$15,537.61, a daily *per capita* cost of 58½ cents. For the previous year the total expense was \$14,355.50, a daily *per capita* cost of 62½ cents. The expenses the past year were almost \$1,200 in excess of the preceding one. Of this amount, \$460 represented the increased cost of transportation and \$350 the increased cost of additional help. Deducting the cost of transportation, repairs, and improvement, leaves as the running expenses \$12,474.18, a daily *per capita* cost of almost 47 cents. For the preceding year the amount was \$11,800.85, a daily *per capita* cost of 51½ cents.

The number of inmates of the Wyoming Soldiers' and Sailors' Home at Cheyenne is steadily increasing, and the home is becoming of more importance as a charitable institution each year. The total cost for eighteen months ending Sept. 30, 1898, was \$7,718.32. The average attendance was 20.

The number of deaf and blind pupils receiving education at the expense of the State at the date of the last report was 8—6 of whom were deaf and were at the Colorado School for the Deaf and the Blind at Colorado Springs; 1 blind pupil was at the Nebraska Institute for the Blind at Nebraska City, and 1 blind pupil was at the Utah State School for the Blind at Ogden. The cost of board and tuition of these pupils is \$250 each per school year at Colorado Springs and Ogden and \$200 each at Nebraska City. The expense of transportation and clothing is borne by the parents of the pupils.

Communications.—The number of miles of railroad in the State is 1,180.54; the number of miles of telegraph is 1,020.6. The total valuation of railroad and telegraph property, for purposes of taxation, is \$7,330,636.

Bounty on Wolves.—The Treasurer says, in his report: "One of the heaviest drafts upon the general fund during the past two years has been for wolf bounties. This tax seems unavoidable, as it is in the nature of self-preservation; but it should be made more effective if possible. A law uniform with the laws of the surrounding States should be passed. It is very apparent that this State now pays for the destruction of wolves which should be paid for by Colorado, Montana, and Nebraska. One feature of the new law should be a large bounty on female wolves, and a small one on the males and pups. Under the present conditions the breeding of wolves is a profitable industry, and the female wolf is too valuable an animal to destroy for the reward offered."

Political.—The Republican State Convention was held in Douglas, Aug. 11. The significant portions of the platform were these:

"We most cordially approve the Administration of President McKinley. He has met the unusually grave and difficult questions which have arisen since his incumbency of the presidential office in a manner so wise and patriotic as to challenge the admiration of all parties at home, and to win the approval of the best people throughout the civilized world.

"We most heartily approve of the annexation of the Hawaiian Islands, and hail with pleasure the American flag which has been there planted as an emblem of liberty by a Republican Administration.

"We invite a comparison between the low wages and low prices of live stock and farm products which existed prior to the adoption of the Dingley bill by a Republican Congress and the condition at the present time, and call attention to the fact that the Congressmen elected by votes largely secured through misrepresentation at our last State election voted and worked against the adoption of this measure and all Republican legislation, which has meant so much to the people of our State."

On State issues it called attention to the increase of revenues under the Republican administration and commended the course of Gov. William A. Richards.

The State ticket nominated was as follows: For Governor, De Forest Richards; for Secretary of State, Fenimore Chatterton; for Auditor, Leroy Grant; for Treasurer, George E. Abbott; for Superintendent of Schools, Thomas T. Tynan; for Judge of the Supreme Court, Jesse Knight.

The Democratic Convention, held in Casper, nominated the following ticket: For Governor, Horace C. Alger; for Secretary of State, David Miller; for Treasurer, Luke Voorhees; for Auditor, Charles H. Priest; for Superintendent of Schools, J. F. Brown; for Judge of the Supreme Court, C. E. Blydenburgh.

The Populists placed this ticket in the field: For Governor, E. B. Deall; for Secretary of State, S. H. Seeley; for Treasurer, John W. Rouse; for Auditor, J. F. Pierce; for Superintendent of Schools, Mrs. M. A. Stocks.

At the election the entire Republican ticket was elected. The plurality for Richards, for Governor, was 1,894. In the new Legislature the Republicans have 12 members of the Senate and 35 of the House, while the Democrats have 7 Senators and 3 members of the House. The Republicans elected their candidate for member of Congress by a plurality of 2,296.

Y

YOUNG MEN'S CHRISTIAN ASSOCIATIONS. The fourteenth International (triennial) Conference of Young Men's Christian Associations was held at Basel, Switzerland, in July. Mr. R. Sarasin-Warney, of Basel, was chosen president. Accounts were given by representatives of the associations in different countries concerning the condition of the societies in their several states. A delegate from Portugal, represented in the conference for the first time, reported that while no association existed in that country in 1894, there were now six, with 300 members. Delegations were present also from Russia and Finland, Italy, Austria, Hungary, Spain, Japan, France, Great Britain, America, and the Protestant countries of Europe. The stated topics

were considered of "Service," by Dr. von Braun, of Stuttgart, the Rev. J. Picard, of Paris, and the Rev. Glyn Davis, of Wales; "Standing of Young Men's Christian Associations," by M. Emanuel Sautter, of Paris, and Mr. L. W. Messer, of Chicago, Ill.; "The Dangers that threaten Young Men's Christian Associations and how to avoid them," "Work among Soldiers, Students, and Railway Men," "Prayer," "Bible Classes," and the "Aggressive Work of the Association." A united communion service was held. At the farewell meeting the benediction was pronounced by fourteen delegates in as many languages. The next International Conference was appointed to be held at Christiania, Norway.

YUKON DISTRICT, THE CANADIAN. The following facts regarding the geography of the much-discussed Yukon or Klondike district are compiled from reports, etc., prepared by R. E. Gosnell, late legislative librarian of British Columbia, Dr. G. M. Dawson, and William Ogilvie.

The Yukon district has an area of approximately 192,000 square miles, within Canadian territory, more than 150,000 square miles of which are included in the watershed of Yukon river. In other words, its area is almost equal to that of France, and greater than that of the United Kingdom by more than 70,000 square miles. The northern portion of British Columbia is included strictly within the Yukon basin, which, with the southern part of the Yukon, is drained by three great river systems. Its waters reach the Pacific by the Stickeen; the Mackenzie, and eventually the Arctic Ocean, by the Liard; and Bering Sea by the Yukon. The Stickeen makes its way through the coast range in a south-westerly direction, while the Liard in a southeasterly direction cuts across the Rocky mountains into the Mackenzie valley. The watershed separating these rises to a height of 2,730 feet. The whole northern country may be said to be in a general way a continuation of the more pronounced physical features of British Columbia. The mountain ranges, however, which are more sharply defined in the northern part of British Columbia, generally converge toward the north until they merge into each other and broaden out into one composite area. The region, as a whole, being a portion of the Cordillera belt of the western coast, is naturally mountainous, but it comprises also important areas of merely hilly or gently rolling country besides many wide, flat river valleys. It is more mountainous and higher in the southeastern part, and subsides gradually and apparently uniformly to the northwest, the mountains becoming isolated and more separated by broader tracts of low land. The general base level or height of the main valley within the coast ranges declines from a height of about 2,500 feet to 1,500 feet at the confluence of Lewis and Pelly rivers, and the average base level of the entire region is a little over 2,000 feet.

The mountain axis next in importance to the coast ranges is that forming the water parting between the upper Liard and Yukon on one side and the feeders of the main Mackenzie river on the other. This represents the northwestern continuation of the Rocky mountains proper, and forms, so far as has been ascertained, the culminating range of several parallel ridges. Its summits attain heights of 7,000 to 9,000 feet.

A third notable mountain axis, designated as the Cassiar range by Dr. Dawson, is cut through by Dease river in its upper course, and farther to the northwest appears to form the line of water parting between the tributaries of the upper Liard and those of the branches of the Yukon. Peaks near the Dease range between 7,000 and 8,000 feet. In the northwestern portion of the region the mountain ranges and ridges are in general lower and irregular.

In regard to the sources of the Yukon, Dr. Dawson says, whether reckoned by size or distance from its mouth, the source of the Lewis must be placed at the head waters of the Hootalingua, in approximate latitude $59^{\circ} 10'$ and longitude $132^{\circ} 40'$. In regard to the Pelly, it is not absolutely certain that the Pelly proper rises farther from the common point at Fort Selkirk than its great branches the McMillan and Ross rivers. The volume of water in the Yukon is small compared with many of the large rivers of the American continent, and is about half that of the Mackenzie. The large rivers by which the Yukon district and the northern por-

tion of British Columbia are intersected constitute the natural and principal routes of travel, and during the summer months render communication comparatively easy. In size and general character the Stickeen closely resembles the Skeena, which enters the coast in a parallel direction about 200 miles farther south. The former is navigable for stern-wheel steamers of light draught to Glenora, 126 miles from Rothsay Point, and under favorable circumstances to Telegraph creek and the Great cañon, which extends many miles, and is quite passable for either steamers or boats, though traversed by the Indians in winter on the ice. The head waters of the Stickeen are unknown, but lie for the most part south of the fifty-eighth parallel of north latitude, in a country said to be very mountainous, interlocking there with the northern branches of the Neas or western feeders of the Black, a tributary of the Liard. From Telegraph creek, the head of navigation, a pack trail, 62½ miles long, constructed by the British Columbia Government, follows the valley of the Stickeen close to the river to the head of Dease lake, which is the center of the whole Cassiar mining district. This route Dr. Dawson says has long been known to the Indians, the Stickeen having been to them from time immemorial an important avenue of trade, by which, as by the Skeena, the coast tribes penetrated a considerable distance inland. Stern-wheel steamers for the navigation of this river require good engine power, and should draw not more than four feet of water when loaded. According to Mr. J. C. Calbreath, a man of very long experience in the district, who is opening a route from Telegraph creek to Teslin lake for the British Columbia Government, the Stickeen generally opens for navigation between April 20 and May 1. Ice or sludge begins to run in the river about Nov. 1. The river freezes over about the end of November. The highest water occurs in early summer, generally in June.

A trail was at one time opened from Fraser lake overland to Dease lake, over which cattle were driven; but this latterly has not been used. The Dease river can scarcely be considered navigable for steamers, though it constitutes a fairly good boat route. The upper Liard and Frances rivers are navigable for large boats, with occasional portages, but not for steamers. The difficulties of the lower Liard are such as to render it an undesirable route even for boats, and scarcely suited as an avenue of trade between Cassiar and the Mackenzie.

Little is known of the Taku river, but Indians ascend it in canoes about 80 miles. From Taku inlet an Indian trail leads southeastward to the Tahltan, eastward to Teslin lake, and northeastward to the lakes near the head of the Lewis. The rivers draining the upper Yukon basin have in general low grades, and afford better navigable water.

The Yukon is continuously navigable for small steamers from its mouth, in Bering Sea, and following the Lewis branch to Miles cañon; thence, after an interruption of about 3 miles, to the head of Bennett lake, and to an additional considerable distance by the waters extending south-westward from Tagish lake.

From the site of old Fort Selkirk the Pelly might be navigable by small steamers of good power to within about 50 miles of the old Fort Pelly banks; and the McMillan branch is also navigable for a considerable distance. The same may be said of Stuart river; but White river, so far as known, is very swift and shoal.

The total length of water that may be utilized for navigation for light stern-wheel steamers on the main river and its branches east of the one hundred and forty-first meridian, or Alaskan bound-

dary, measured in straight lengths of 50 miles, is estimated by Dr. Dawson at 1,000 miles, and, following the sinuosities of the various streams, would be very much greater. This does not include the Porcupine river; and, with the exception of a single break—Miles cañon, on the Lewis—it forms a connected system, all parts of which lie east of the above-named meridian.

Resources and Development.—In 1898 mining conditions gradually settled down in the famous Klondyke region. Early in 1897 Major Walsh had been sent up as Canadian administrator, and in the succeeding year the district was formally detached from the Northwest Territories to which it had nominally belonged, and was governed direct from Ottawa. Mr. Sifton, Dominion Minister of the Interior, paid a visit of inspection to the region; and mining regulations were made in accordance with his experience and the advice of Major Walsh. Meanwhile the discontent natural to a large and fluctuating population—chiefly alien—culminated in all sorts of vague charges against the local administration of affairs, and these charges were taken up by the Opposition press through the country and supported in a very general way by Miss Shaw, the special correspondent of the London "Times," who visited the district in the summer of 1898. She asserted that there were irregularities in the post office, very poor sanitation in Dawson City, lack of proper surveys, too high charges for recording claims, etc., and unfair arrangement of royalties. The latter was the most important matter, and regarding it Major Walsh said in his official report of Nov. 5, 1898: "On my arrival in Dawson I found a great many questions awaiting solution which could only be disposed of by the authority of the commissioner. For instance, the question of royalty, over which there had been considerable discussion, appeared to be somewhat mixed. I immediately announced that the royalty would be collected on all claims, leases of which were renewed subsequent to the date when the law came into force. Nearly all the leaseholders of largely prospected claims showed a disposition to respect the collection of royalty; others, however, were not so tractable, their principal objection being that the leases were granted for one year; and that, once being granted, subsequent restrictions could not be placed upon them. I pointed out to leaseholders that the collection of royalty was necessary for the maintenance of the courts of justice, for police protection, mail communication, and for public services. While acknowledging the force of these reasons, they submitted that more thorough examination of the real cost of outputting gold would convince the Government that the royalty is a severe tax, and expressed the hope that next year would see it removed. The royalty was not collected from any claims which had not got into good working order, or which could not show a profit after paying the royalty, and this would represent a large sum. Again, more than half the leases were exempted from the royalty on account

of having been renewed previous to the date of the law requiring the payment of royalty coming into force. The collection of royalty will amount to about \$500,000."

Meantime Major Walsh had resigned his commissionership and been succeeded by William Ogilvie, the explorer, who was given general instructions to investigate under oath the alleged wrongdoings in the territory. Mr. Fawcett was succeeded as gold commissioner by Gordon Hunter, of Victoria, B. C. But the latter gave up the office, and E. C. Senkler, of Nelson, B. C., was then appointed.

The estimated output of gold for 1898 was \$10,000,000, by Major Walsh. A correspondent of the Vancouver "World" gave the following from private estimates of the respective mine owners: Bonanza, \$7,000,000; El Dorado, \$10,000,000; Hunker, \$2,500,000; Dominion, \$350,000; Sulphur, \$150,000; total, \$20,000,000.

Mr. F. C. Wade, Crown prosecutor in the Yukon, on Sept. 21, 1898, spoke at Toronto in the following terms of the royalty and the gold production: "That subject [the gold output] never came within my province; but up to the time Major Walsh left I understood that about \$500,000 had been collected in royalty. That would make the gold output \$5,000,000. Not all the royalty had been collected at that time, by any means, and outside of that you have to remember that direct taxes, like an income tax, or a royalty, are no sure index of the wealth from which they are derived. I think that Capt. Healey, of the North American Transportation Company, whose estimates are generally pretty safe to proceed upon, is not out of the way in placing the gold output this year between eight and ten million dollars. This, however, is no indication of the gold-producing power of the country."

In an interview after his return, Major Walsh spoke of the population of Dawson City as 30,000, of whom 80 per cent. were foreigners. Capt. Constantine, of the mounted police, early in August gave the following account of the place: "The trading companies—i. e., the North American Transportation and the Alaska Commercial Company—have erected large and expensive stores and warehouses, costing \$250,000 each. There are four saw-mills, any number of dance houses and saloons, a hospital in charge of Father Judge, the Jesuit missionary, a general hospital in course of erection by subscription, a Church of England mission, a Presbyterian mission, as well as a Roman Catholic one. All supplies are very costly. Lumber that would sell in Ontario for \$10 a thousand is worth \$200 at the mill. The cost of transportation to the mines, where it is used for sluice boxes and other necessary things, is 40 cents a foot. Wages are high, the ordinary rate being \$15 a day or \$1.50 an hour. The wages went to that figure by the action of a few of the owners of exceedingly rich claims, who were anxious to work out their claims and get out of the country as quickly as possible."

In December a fire occurred at Dawson, in which much valuable property was destroyed.

INDEX TO THE THREE VOLUMES OF THE THIRD SERIES. 1896—1898.

- Abbey, Henry E., obit., i, 542.
Abyssinia, i, 1; ii, 1; iii, 1.
Abyssinian priests dancing, illustration, i, 6.
Acheen, war in, i, 509.
Acoustics, i, 639; ii, 670; iii, 629.
Acton, Thomas C., obit., iii, 520.
Adams, Alva, port., ii, 141.
Aerial navigation, ii, 4.
Aërolite, great Spanish, i, 51.
Afghanistan, i, 7; ii, 8; iii, 2.
Agrarian agitation, ii, 69.
Agrarian socialism, ii, 75; iii, 70.
Agricultural Congress, i, 71.
Agriculture, i, 778.
Ahmad Khan, Sir Saiyid, obit., iii, 582.
Aitchison, Sir Charles, obit., i, 596.
Alabama, i, 9; ii, 9; iii, 8.
Alaska, census statistics, i, 790; map, ii, 444; boundary treaty, 789.
Albania, disturbances in, iii, 726.
Albany, centennial of, ii, 561.
Alcock, Rutherford, obit., ii, 628.
Alcohol used in the arts, i, 200.
Alfieri di Sostegno, Marchese Albert, obit., ii, 629.
Alger, Russell A., sketch and port., ii, 776.
Algeria, i, 296; ruins of Kalaa, ii, 24.
Algonimeter, the Temple, i, 677.
Alien ownership of land, ii, 198.
Allen, Frederick De Forest, obit., ii, 577.
Allen, Harrison, obit., ii, 577.
Allen, Joseph H., obit., iii, 520.
Alley, John B., obit., i, 543.
Alliance of Reformed Churches, i, 681.
Allison, Joseph, i, 548.
Alloys, i, 463; iii, 433.
Altar in Copan, illustration, i, 17.
Alula, Ras, obit., ii, 629.
Aluminun, i, 461; ii, 510; iii, 431.
Alvary, Max, obit., iii, 582.
Alvord, Thomas G., obit., ii, 578.
American Board, i, 142.
Ammen, Daniel, obit., iii, 521.
Anderson, Sir W., obit., iii, 582.
Angeline, Princess, obit., i, 543.
Anglican Church, the right of public meeting, ii, 15.
Anglican Churches, i, 11; ii, 11; iii, 4.
Anglican orders, validity of, i, 15.
Anglo-Chinese agreement, new, ii, 138.
Antananarivo, illustration, iii, 414.
Antarctic regions, i, 806; ii, 337.
Anthony, G. T., obit., i, 543.
Anticigarette law in Iowa, i, 360.
Anti-Italian demonstrations, i, 83.
Anti-Semitism in Galicia, iii, 69.
Antislavery laws in Egypt, i, 258.
Antitrust law, in Texas, ii, 765.
Apportionment law in Indiana, i, 357.
Appropriations, i, 217.
Arbitration treaty with Great Britain, ii, 788.
Arbor Day, i, 814.
Archæology, i, 16; ii, 20; iii, 13.
Archbishop of Canterbury, i, 725; charge of the, iii, 12.
Arden, T. B., obit., i, 543.
Argentine Republic, i, 24; ii, 25; iii, 18; Chilian boundary, iii, 20.
Arizona, i, 26; ii, 27; iii, 20; statehood, i, 27; iii, 21.
Arkansas, i, 27; ii, 28; iii, 21.
Armaments, Czar's proposal for reduction of, 688.
Armenia, i, 210, 735; outrages, 690; ii, 770; grievances, iii, 727.
Armitage, Thomas, obit., i, 543.
Artemis, Agrotera, temple of, ii, 21.
Ashanti war, i, 818.
Ashley, J. M., obit., i, 543.
Asia, colored map, iii, 124.
Asmara, Abyssinia, illustration, i, 2.
Asnyk, Adam, obit., ii, 620.
Associations for the Advancement of Science, i, 80; ii, 81; iii, 24.
Asteroids, i, 47; ii, 52; iii, 51.
Astronomical progress in 1896, i, 46; in 1897, ii, 49; in 1898, iii, 50.
Astrophysical standards, i, 51.
Atkinson, George W., port., ii, 823.
Atkinson, John, obit., ii, 578.
Atlanta, Ga., Exposition at, i, 811.
Atomic weights, i, 120; ii, 127; iii, 117.
Atwood, Melville, obit., iii, 521.
Augur, C. C., obit. and port., iii, 521.
Aumale, Henri E. F. L., obit., ii, 629.
Aurène, Paul, obit., i, 597.
Ausgleich, the, i, 66; iii, 66.
Australasia, i, 53; ii, 56; iii, 57.
Australian Federation, i, 57.
Austria, i, 68; ii, 69; iii, 67.
Austria-Hungary, i, 64; ii, 65; iii, 64.
Aveling, E. B., obit., iii, 582.
Avignon, Phœnician inscription at, iii, 14.
Ayer, Josephine M. S., obit., iii, 521.
Ayres, Anne, obit., i, 544.
Ayres, Henry, obit., ii, 630.
Baalbec, ii, 22.
Babcock, James F., obit., ii, 578.
Babylonia, ii, 22.
Bacon, John Edmund, obit., ii, 578.
Bacon, William A., obit., i, 544.
Baden-Powell, G. S., obit., iii, 583.
Bagley, Worth, obit. and port., iii, 521.
Bahamas, i, 821; ii, 820.
Baker, Charles H., obit., i, 544.
Baker, C. R., obit., iii, 622.
Baker, William S., obit., ii, 578.
Ball, J. T., obit., iii, 583.
Bamberger, Isaac, obit., i, 597.
Banigan, Joseph, obit., iii, 522.
Bankruptcy, uniform system of, iii, 194.
Banks, Isabella, obit., ii, 630.
Baptists, i, 73; ii, 76; iii, 71.
Barbadoes, i, 821; ii, 820.
Bardoux, A., obit., ii, 630.
Barlow, Francis C., obit., i, 544.
Barnard College, i, 828.
Barnato, Barney L., obit., ii, 630.
Barnby, Sir Joseph, obit., i, 597.
Barnes, C. M., port., iii, 608.
Barnes, D. L., obit., i, 544.
Barre, Jean A., obit., i, 597.
Barrow, John, obit., iii, 583.
Barry, Charles R., obit., ii, 631.
Barry, William, obit., iii, 522.
Bartlett, S. C., obit., iii, 522.
Barton, Robert M., obit., i, 545.
Basutoland, ii, 110; iii, 103.
Bateman, Newton, obit., ii, 578.
Bates, Erasmus N., obit., iii, 522.
Bates, Newton, Lemuel, obit., ii, 578.
Battenberg, Prince H. M., obit., i, 597.
Bayard, Thomas F., obit. and port., iii, 522.
Beach, A. E., obit., i, 545.
Beal, G. L., obit., i, 545.
Bean, Nehemiah S., obit., i, 545.
Beardsley, Aubrey, obit., iii, 583.
Beasley, Mercer, obit., ii, 679.
Bechuanaland, i, 98; protectorate, ii, 110; iii, 103.
Beecher, Eunice White, obit., ii, 579.
Begole, J. W., obit., i, 545.
Beidler, Jacob, obit., iii, 523.
Belgium, i, 77; ii, 81; iii, 76.
Belknap, R. L., obit., i, 545.
Bell, Isaac, obit., ii, 579.
Bell, P. H., obit., iii, 523.
Bellamy, Edward, obit. and port., iii, 523.
Bennett, E. H., obit., iii, 524.
Bennett, J. M., obit., iii, 525.
Bennett, S. F., obit., iii, 525.
Benson, E. W., obit., i, 597.
Bent, James T., obit., ii, 631.
Benteen, F. W., obit., iii, 525.
Bequests, i, 321.
Berardi, Léon, obit., ii, 631.
Berlin Industrial Exhibition, i, 320.
Berti, Domenico, obit., ii, 631.
Bessemer, Henry, obit., iii, 583.
Bianchi, Angelo, obit., ii, 631.
Bible Christians, ii, 523; iii, 449.
Biddle, Arthur, obit., ii, 579.
Bimetallic mission, ii, 791.
Binaries, spectroscopic, ii, 50.
Birch, William, ii, 579.
Bird Day, i, 79.
Birdseye, L., obit., i, 546.
Bismarck, N. D., i, 539.
Bismarck, Schönhausen, Otto E. L., sketch, iii, 79, port., 82.
Black, Frank S., port., ii, 556.
Black, William, obit. and port., iii, 584.
Blackburn, Colin, obit., i, 598.
Blair, Ex-Gov., statue of, iii, 454.
Blair, J. B., obit., i, 546.
Blind, Mathilde, obit., i, 598.
Bliss, Cornelius N., sketch and port., ii, 777.
Bliss, George, obit., i, 546.
Bliss, George, obit., ii, 580.
Block, Washee, obit., i, 546.
Blockade of Cuban ports, iii, 756.
Blondin, Jean F. G., obit., ii, 631.
Bloxham, William D., port., ii, 823.
Bluejacket, Charles, obit., ii, 580.

- Boatable waters, i, 808.
 Bogan, Bernard, obit., i, 546.
 Bogan, F. B., obit., iii, 525.
 Bohemia, race war in, ii, 72.
 Bolivia, i, 80; ii, 85; iii, 84.
 Bond, Elias, obit., i, 546.
 Bond, Sir E. A., obit., iii, 585.
 Bonds, bill authorizing, i, 189; investigation, 220.
 Book plates, ii, 86.
 Bootes, L. C., obit., i, 546.
 Booth, Henry, obit., iii, 525.
 Borda, Juan I., obit., ii, 631.
 Boreman, A. I., obit., i, 547.
 Boris, conversion of Prince, i, 87.
 Bosnia and Herzegovina, ii, 68.
 Botanic Garden in New York city, i, 531; ii, 563.
 Boudin, Eugene, obit., iii, 585.
 Boundary questions—in Chili, i, 25; in Brazil, 84; in Costa Rica, 225.
 Bounties on animals, i, 497.
 Bourbaki, Charles D. S., obit., ii, 631.
 Bourke, J. G., obit., i, 547.
 Bowen, H. C., obit., i, 547.
 Bowker, Sarah H., obit., iii, 525.
 Boyce, George P., obit., ii, 632.
 Boyer, Jean P., obit., i, 598.
 Boynton, Albert, obit., iii, 525.
 Bradford manuscript, the, ii, 503.
 Bradley, William C., port., ii, 436.
 Brady, M. B., obit., i, 547.
 Brahma, Johannes, obit., ii, 632.
 Braine, D. L., obit., iii, 525.
 Brazil, i, 80; ii, 88; iii, 86.
 Bread riots, in Spain, iii, 705; in Italy, iii, 344.
 Brethren or Tunkers, i, 74.
 Brewer, Ebenezer C., obit., ii, 633.
 Brice, C. S., obit., iii, 526.
 Briggs, F. A., obit., iii, 526.
 Brimmer, Martin, obit., i, 548.
 Brin, Benedetto, obit., iii, 585.
 Bristow, Benjamin H., obit., i, 548.
 Bristow, G. F., obit., iii, 526.
 British Columbia, i, 84; ii, 92; iii, 87.
 British East Africa, i, 252; ii, 285; iii, 280.
 British gunboat going through Jura rapid, illustration, i, 261.
 British Central Africa, iii, 109.
 British South Africa, i, 109; iii, 107.
 Broadhead, J. O., obit., iii, 526.
 Bromley, Henry, obit., i, 548.
 Bromley, I. H., obit., iii, 526.
 Brooks, N. C., obit., iii, 520.
 Broome, Sir F. N., obit., i, 598.
 Brown, Thomas E., obit., ii, 633.
 Brown, W. M., obit., iii, 527.
 Bruce, Blanche K., obit., iii, 527.
 Bruckner, Anton, obit., i, 599.
 Brunot, F. R., obit., iii, 527.
 Brush, Charles B., obit., ii, 580.
 Bryan, William Jennings, speech-making tour, i, 651; sketch and port., 765.
 Bryn Mawr College, i, 828.
 Buckley, Sir Patrick A., obit., i, 599.
 Bucknill, J. C., obit., ii, 633.
 Budd, James H., port., ii, 97.
 Buell, Don Carlos, obit. and port., iii, 527.
 Buffet, M., obit., iii, 585.
 Buildings, steel, iii, 707.
 Bulgaria, i, 86; ii, 94; iii, 90.
 Bulgarian Church, the, i, 88.
 Bullitt, J. F., obit., iii, 527.
 Bunner, H. C., obit., i, 548.
 Burekhardt, Jakob, obit., ii, 638.
 Burlet, Jules, obit., ii, 633.
 Burne-Jones, Edward, obit., iii, 586.
 Burnham, B. F., obit., iii, 528.
 Burroughs, William, obit., iii, 528.
 Burt, Mart T., obit., iii, 528.
 Bushnell, Asa S., port., ii, 650.
 Busted, R. L., obit., iii, 529.
 Butler, Charles, obit., ii, 580.
 Butler, Thaddeus J., obit., ii, 581.
 Butterworth, Benjamin, obit. iii, 528.
 Cabell, E. C., obit., i, 549.
 Cabinet, President McKinley's, ii, 775 *et seq.*
 Cable project, Pacific, i, 58.
 Cable roads, ii, 743.
 Cadiz squadron, iii, 764.
 Caird, John, obit., iii, 586.
 Calculating machines, ii, 96; illustration, 96.
 Calderon, P. H., obit., iii, 537.
 Calderwood, Henry, obit., ii, 638.
 California, i, 90; ii, 97; iii, 91; golden jubilee, 93.
 Callahan, M., obit., i, 549.
 Callis, J. B., obit., iii, 528.
 Cambridge, Mass., i, 456.
 Cameron, Angus, obit., ii, 581.
 Campbell, Alexander, obit., iii, 528.
 Campbell, H. J., obit., iii, 529.
 Campbell, L. J., obit., i, 549.
 Camphausen, Otto von, obit., i, 599.
 Canada, Dominion of, i, 94; ii, 103; iii, 96; Northwest Territories, i, 540.
 Canals, ancient underground, iii, 18; Illinois, 327.
 Candler, Allen D., port., iii, 288.
 Canning industry, ii, 107.
 Cannon, H. S., obit., i, 549.
 Canovas del Castillo, Antonio, obit., ii, 634.
 Canudos, fanatics of, ii, 91.
 Cape Colony and South Africa, i, 97; ii, 108; iii, 101.
 Capital and labor, ii, 502.
 Capron, Allyn, obit., iii, 529.
 Car, double-decked, illustration, ii, 746.
 Carleton, Charles A., obit., ii, 581.
 Carlington, C. S. P. F., obit., iii, 587.
 Carpenter, A. P., obit., iii, 529.
 Carpenter, C. C., obit., iii, 529.
 Carpenter, G. M., obit., i, 549.
 Carpenter, William, obit., i, 549.
 Carroll, Lewis. See DOBOSOR.
 Carriages, motor, iii, 469.
 Carter, Susan N., obit., i, 549.
 Cartland, Joseph, obit., iii, 529.
 Cascade locks in Oregon, i, 625.
 Case, Rufus, obit., iii, 529.
 Case, William L., obit., ii, 634.
 Casey, Thomas L., obit. and port., i, 549.
 Caswell, Oliver, obit., i, 550.
 Catlin, G. L., obit., i, 550.
 Cattell, W. C., obit., iii, 529.
 Cattle, breeding of, in Alabama, iii, 4.
 Cavalasella, Giovanni B., obit., ii, 634.
 Cavallotti, Felice, obit., ii, 587.
 Ceneri, Giuseppe, obit., iii, 587.
 Census, United States, i, 775.
 Central American Union, iii, 823.
 Cernuschi, Henri, obit., i, 599.
 Cervera's fleet, iii, 753; destroyed, 768.
 Challemeil-Lacour, P. A., obit., i, 599.
 Chalmers, J. R., obit., iii, 580.
 Chamberlain, controversy with, i, 107.
 Chambers, T. W., obit., i, 550.
 Chapleau, J. A., obit., iii, 587.
 Chase, A. F., obit., iii, 580.
 Cheese, filled, i, 113.
 Cheever, Henry T., obit., ii, 581.
 Chemistry, i, 118; ii, 121; iii, 110.
 Cheyenne Indians, the, ii, 537.
 Chicory, ii, 541.
 Childers, H. C. E., obit., i, 600.
 Child, F. J., obit., i, 550.
 Chili, i, 124; ii, 131; iii, 121; boundary of, 20.
 China, i, 127; ii, 133; iii, 122; insurrectionary movements, 131.
 Christian Church, i, 131.
 Christian Connection, iii, 132.
 Christian Endeavor, societies of, i, 132; iii, 133; United Society of, ii, 139.
 Christian Knowledge Society, ii, 14.
 Christian Scientists, ii, 139.
 Christy, Charles, obit., ii, 581.
 Church Congress, i, 15.
 Church defense and Church reform, i, 14; iii, 6.
 Circulation, i, 647; ii, 679; iii, 638.
 Cisneros, F. J., obit., iii, 530.
 Cities, growth of, in Minnesota, i, 489.
 Civil code, the German, i, 319.
 Claassen, P. J., obit., i, 551.
 Claflin, M. B., obit., i, 551.
 Clark, Alvan Graham, obit., ii, 582.
 Clark, G. T., obit., iii, 588.
 Clark, James G., obit., ii, 582.
 Clark, Lewis George, obit., ii, 582.
 Clarke, Mary, V. C., obit., iii, 588.
 Clarksville, Tenn., ii, 757.
 Cleveland College for Women, i, 830.
 Cliff dwellers, architecture of, i, 19.
 Clingman, Thomas L., obit., ii, 582.
 Clitz, John M. B., obit., ii, 583.
 Clough, D. M., port., ii, 529.
 Cochran, John, obit., iii, 530.
 Cochran, William, obit., iii, 588.
 Cockerill, J. A., obit., i, 551.
 Coe, G. S., obit., i, 551.
 Coffin, G. C., obit., i, 551.
 Coinage in Japan, i, 367.
 Coins, mutilating, ii, 198.
 Coke, Richard, obit., ii, 583.
 Colby, Charles Edwards, obit., ii, 583.
 Coles, Abraham, bust of, illustration, ii, 321.
 Colgate, Samuel, obit., ii, 583.
 Colhoun, E. R., obit., ii, 583.
 Collier, J. W., obit., iii, 530.
 Collins, Hiram, obit., i, 552.
 Collins, John W., port., ii, 713.
 Colombia, i, 132; ii, 140; iii, 134; dispute with Italy, 134.
 Colony, a Grand Army, i, 311.
 Colorado, i, 132; ii, 141; iii, 135; anniversary of gold discovery, 136; land grant, 136.
 Colorado Springs, iii, 136.
 Colston, Raleigh E., obit., i, 552.
 Colton, G. Q., obit., iii, 530.
 Columbia river, fishing in, i, 626.
 Comegys, Cornelius, obit., i, 552.
 Comets, i, 52; ii, 53; iii, 56.
 Commerce of the United States, i, 750; ii, 781.
 Commission of the Danube, i, 696.
 Compressed air, uses of, ii, 144, 746.
 Concessions, Chinese, iii, 128.
 Concilio, J. de, obit., iii, 531.
 Confederate pensioners in North Carolina, iii, 509.
 Confederate Veterans, organization of, i, 136.
 Conger, O. D., obit., iii, 531.
 Congo, Independent State of the, i, 138; ii, 146; iii, 137.
 Congo river, Stanley Falls, iii, 138; Stanley Pool, illustration, 139.
 Congregationalists, i, 141; ii, 149; iii, 139.
 Congress of the United States, i, 144; ii, 152; iii, 143; contested seats, i, 219.
 Congressional Library, illustration, ii, 795.
 Connecticut, i, 222; ii, 238; iii, 210; Fast Day, 212.
 Conover, G. S., obit., iii, 531.
 Conrad, F. W., obit., iii, 531.
 Constantinople, view of, i, 737; riots in, 738.
 "Constitution," anniversary, ii, 502.
 Constitutional crisis in France, i, 293.
 Conventions, national, i, 759 *et seq.*

- Cooke, Augustus P., obit., i, 552.
 Cooke, Julia M., obit., i, 552.
 Cooke, Lorrin A., port., ii, 238.
 Cooke, M. W., obit., iii, 531.
 Cooley, T. McL., obit., iii, 532.
 Cooney, M. A., obit., iii, 532.
 Cooper, Margaret S., obit., iii, 532.
 Copan, survey of, i, 17.
 Cope, Edward D., port., i, 30; obit., ii, 533.
 Copper. See METALLURGY.
 Copyright, ii, 179; decision on, 654.
 Corbin, Austin, obit., i, 552.
 Corea. See KOREA.
 Corson, Hiram, obit., i, 553.
 Corson, Juliet, obit., ii, 584.
 Costa Rica, i, 225; ii, 241; iii, 213; dispute with Nicaragua, 213.
 Cothren, William, obit., iii, 532.
 Cotton-Growers' Convention, ii, 343.
 Couch, Darius N., obit., ii, 585.
 Couldock, Charles W., obit., iii, 532.
 Cox, J. F., obit., iii, 533.
 Cox, George D., obit., i, 553.
 Cox, A. C., obit. and port., i, 553.
 Cragin, A. H., obit., iii, 534.
 Cramer, M. J., obit., iii, 534.
 Crane Hook monument, i, 239.
 Crannog on the Clyde, iii, 13; site of the, illustration, 13.
 Crater lake, Oregon, ii, 659.
 Cree Indians, the, i, 497.
 Crespo, Joaquin, obit., iii, 533.
 Crete, i, 741; map, 745; ii, 241; iii, 213.
 Crime, pauperism, and benevolence, i, 730.
 Crisp, Charles F., obit., i, 554.
 Cristobal Colon, wreck, illustration, iii, 763.
 Crooks, George R., obit., ii, 535.
 Crookes, Sir William, port., iii, 35.
 Crops, the, in 1896, i, 279; in 1897, ii, 312; iii, 263.
 Crouch, F. W. N., obit., i, 554.
 Crowe, Sir J. A., obit., i, 600.
 Crowninshield, Casper, obit., ii, 535.
 Cruger, S. van R., obit., iii, 534.
 Cruiser, U. S., illustration, i, 595.
 Cuba (with a colored map), i, 225; ii, 253; iii, 217; affairs discussed in United States Congress, i, 203; United States action toward, iii, 153; military assembly, 771.
 Crummell, Alexander, obit., iii, 534.
 Curaçao, i, 823.
 Currency, question of—in Chili, i, 125; in Germany, 317; in Hayti, 342; in India, 353; in Italy, 365.
 Currier, Moody, obit., iii, 534.
 Dahl, Olaus, obit., ii, 535.
 Dahlgren, Madeleine V., obit., iii, 535.
 Dairies, ii, 814.
 Dallas, Mary Kyle, obit., ii, 535.
 Dallas, Texas, ii, 766.
 Dana, Charles A., sketch, ii, 269; port., 270; summer house, illustration, 271.
 Dana, J. J., obit., iii, 535.
 Dana, Malcolm McGregor, obit., ii, 535.
 Daniels, Charles, obit., ii, 536.
 Danish Antilles, i, 823; ii, 821.
 Danube, European Commission of the, ii, 721; iii, 633.
 Daudet, Alphonse, sketch and port., ii, 272.
 Dauphin, Albert, obit., iii, 533.
 Davenport, Fanny, obit. and port., iii, 535.
 Davidson, Samuel, obit., iii, 539.
 Davis, Daniel F., obit., ii, 536.
 Davis, Margaret E. O'B., obit., iii, 535.
 Davis, Varina A. J., obit., iii, 536.
 Davis, W. G. M., obit., iii, 536.
 Dawes, William, obit., ii, 634.
 Dawson, A. R., obit., i, 554.
 Day, David A., obit., ii, 536.
 Day, William R., sketch, iii, 729.
 Dayton, William L., obit., ii, 536.
 Deaconess Board, ii, 491; work, 493.
 Dean, George W., obit., ii, 536.
 Decisions, judicial, in California, i, 92; in Colorado, 135.
 Deemer, Edward S., port., ii, 504.
 Defective classes, i, 734.
 Defense, national, the measure for, iii, 164.
 De Fontaine, Felix, obit., i, 554.
 De Forest, Henry L., obit., i, 555.
 Delacy, William, obit., iii, 536.
 Delano, Columbus, obit., i, 555.
 Delaware, i, 238; ii, 273; iii, 217; constitutional convention, i, 241; ii, 274.
 Delaware river, i, 630.
 Delianoff, I. D., obit., iii, 539.
 De Lôme incident, iii, 737.
 Delyannis, Theodore, port., i, 337.
 Demarest, D. D., obit., iii, 536.
 Demorest, Ellen L., obit., iii, 536.
 Denmark, i, 241; ii, 277; iii, 220.
 Derby, Perley, obit., ii, 536.
 Deshauser, early remains at, iii, 16.
 De Trobriand, Philippe, obit., ii, 536.
 Deus, João de, obit., i, 600.
 Deutch, Solomon, obit., ii, 537.
 De Vivo, Diego, obit., iii, 536.
 Dewey, George, sketch, iii, 221; birthplace, illustration, 221; portrait, frontispiece; his victory celebrated in the first "Dewey day," 821.
 Diaz, re-election of, i, 482.
 Digestion, i, 648; ii, 681, iii, 640.
 Dimaput, ruins of, ii, 24.
 Dingley bill, the, i, 169.
 Diplomatic missions, ii, 2.
 Disability, removal of, iii, 133.
 Disasters in 1896, i, 243; in 1897, ii, 279; in 1898, iii, 225.
 Disciples of Christ, i, 247; ii, 284; iii, 228.
 Divorce, decision in Oregon, ii, 659.
 Divorce law in Montana, ii, 537.
 Divorces in North Dakota, i, 538.
 Dixon, Maria E., obit., ii, 537.
 Dixon, Nathan F., obit., ii, 537.
 Doane, Thomas, obit., ii, 537.
 Dodge, Mary Abigail, sketch, i, 248.
 Dodgson, C. L., obit., iii, 539.
 Dodson, Caroline M., obit., iii, 536.
 Dodworth, A. T., obit., i, 555.
 Dodworth, T. J., obit., i, 555.
 Doe, Charles, obit., i, 555.
 Dolph, Joseph, obit., ii, 537.
 Dominion of Canada, i, 95; ii, 103; iii, 96.
 Donaldson, T. C., obit., iii, 536.
 Dongola expedition, the, i, 259.
 Donnohue, D. C., obit., iii, 537.
 Doolittle, James R., obit., ii, 537.
 Dorsey, Anna H., obit., i, 555.
 Dorsey, H. C. L., obit., iii, 537.
 Dos Passos, B. F., obit., iii, 537.
 Douglas, Robert, obit., ii, 538.
 Dow, Neal, obit. and port., ii, 538.
 Dowling, Richard, obit., iii, 539.
 Downs, M. S., obit., iii, 537.
 Drake, Francis M., ii, 416.
 Drake, Jonathan, obit., ii, 538.
 Dreher, Virginia, obit., iii, 537.
 Drew, Louisa L., obit., ii, 538.
 Dreyfus, Capt., iii, 275; prison of, illustration, 276.
 Drisler, Henry, obit., ii, 539.
 Drobisch, M. W., obit., i, 600.
 Drummond, Henry, obit. and port., ii, 634.
 Druses, campaign against, i, 738.
 Dry dock, iii, 408.
 Dual Alliance, the, ii, 331.
 Duane, James C., obit., ii, 539.
 Ducat, A. C., obit., i, 555.
 Dudley, Lewis J., obit., i, 555.
 Duluth, fire in, iii, 457.
 Du Maurier, George L. P. La B., sketch, port., and house, i, 249.
 Duncan, C. C., obit., iii, 537.
 Duncan, S. W., obit., iii, 537.
 Durgin, Dorothy, obit., iii, 537.
 Durrie, John, obit., iii, 538.
 Duryea, J. T., obit., iii, 538.
 Duryea, George, obit., ii, 539.
 Duryea, William R., obit., ii, 539.
 Dutch East Indies, i, 508.
 Dyer, Elisha, port., ii, 714.
 Earle, Joseph H., obit., ii, 590.
 Earthquakes in India, ii, 401; in California, iii, 94.
 East Africa, i, 250; ii, 248; iii, 229.
 East Indies, the Dutch, ii, 544.
 East river bridge, iii, 504.
 Eaton, W. W., obit., iii, 538.
 Eaton, Wyatt, obit., i, 556.
 Ebers, Georg M., obit. and port., iii, 539.
 Echols, John, obit., i, 556.
 Eclipses on Jupiter, solar, ii, 55.
 Ecuador, i, 254; ii, 289; iii, 233; national convention, 425.
 Eddy, D. C., obit., i, 556.
 Eddy, E. M. G., obit., ii, 635.
 Eddy, Wilson, obit., iii, 538.
 Edgerton, A. J., obit., i, 556.
 Edgerton, Alfred P., obit., ii, 590.
 Education, i, 731.
 Egypt, i, 255; ii, 23, 290; iii, 234; colored map, 234; antislavery laws in, i, 258.
 El Caney, illustration, iii, 761.
 Election results (presidential), i, 770.
 Electoral reform in Austria, i, 69.
 Electric energy, waste of, ii, 749.
 Electricity, i, 642; iii, 633; as a motive power, 470.
 Elias, Ney, obit., ii, 635.
 Eliot, Samuel, obit., iii, 538.
 Elizabeth, Empress, obit., iii, 590.
 El-Kab, antiquities of, ii, 24.
 Ellerbe, W. H., port., ii, 731.
 Elmer, Horace, obit., iii, 538.
 Elmore, A. F., obit., iii, 538.
 Elmira College, i, 831.
 Embry, James C., obit., ii, 590.
 Emerson, G. H., obit., iii, 539.
 Emerson, J. M., obit., iii, 539.
 English, Mrs. Jane (Western), obit., iii, 539.
 English, William H., obit., i, 556.
 Eno, A. R., obit., iii, 539.
 Epworth League, ii, 519.
 Equatorial Provinces, the, ii, 3.
 Eunson, R. G., obit., i, 557.
 Evangelical Alliance, i, 262.
 Evangelical Association, i, 262; ii, 296; iii, 240.
 Evangelical Free Churches, Congress of, i, 262.
 Evans, John, obit., ii, 590.
 Evans, John, port., ii, 39.
 Evans, Joseph, obit., iii, 539.
 Evans, Thomas W., obit., ii, 590.
 Events of 1896, i, 263; of 1897, ii, 296; of 1898, iii, 240.
 Ewing, Thomas, i, 557.
 Exposition, at Atlanta, Ga., i, 311.
 Exposition, Trans-Mississippi, iii, 249; view of Government Building, 249.
 Eybesfeld, Conrad von, obit., iii, 590.
 Fabre, Ferdinand, obit., iii, 590.
 Factory inspection in Connecticut, i, 223; in New York State, 525.
 Fairbank, Calvin, obit. and port., iii, 539.

- Fairchild, Lucius, obit. and port, i, 557.
 Falke, Jakob, obit., ii, 635.
 Famine and plague, i, 354; ii, 139.
 Fancher, F. B., port., iii, 513.
 Farmers' Congress, i, 273; ii, 307; iii, 257.
 Farms, abandoned, i, 275.
 Farms and homes, i, 781.
 Farnsworth, John F., obit., ii, 591.
 Fashoda question, the, iii, 229, 280.
 Fassett, C. A., obit., iii, 540.
 Fay, Joseph Storv, obit., ii, 591.
 Fay, T. S., obit., iii, 540.
 Febigger, J. C., obit., iii, 540.
 Faucit, Helena, Lady Martin, obit., iii, 590.
 Federation of Free Churches, ii, 308.
 Felch, Alpheus, obit., i, 557.
 Fenn, Augustus H., obit., ii, 591.
 Ferdinand, recognition of Prince, i, 87.
 Ferris, G. W., obit., i, 558.
 Ferry, T. W., obit., i, 558.
 Feuillée, F. M., obit., iii, 592.
 Field, Kate, obit., i, 558.
 Fiji, ii, 65; iii, 64.
 Filipinos, conflict with Americans, iii, 625.
 Finances of the United States, i, 793; ii, 795; iii, 813.
 Financial Review of 1896, i, 276; of 1897, ii, 309; of 1898, iii, 258.
 Fine Arts in 1896, i, 283; in 1897, ii, 316; in 1898, iii, 265.
 Fink, Albert, obit. and port., ii, 591.
 Fisher, Clara, obit., iii, 540.
 Fisheries, i, 779.
 Fisk Free and Public Library, ii, 489.
 Fitzgibbon, Mary I., obit., i, 558.
 Flad, Henry, obit., iii, 541.
 Flagg, George Whiting, obit., ii, 591.
 Flagg, William J., obit., iii, 541.
 Flanders, B. F., obit., i, 559.
 Flemish question, the, ii, 63.
 Flood, damage by, ii, 29.
 Flood, the, in Louisiana, ii, 489.
 Flood, the, Mississippi, ii, 532.
 Floods, ii, 534.
 Floquet, Charles T., obit., i, 600.
 Florida, i, 288; ii, 323; iii, 271; reclamation of lands, 272.
 Flying machine, illustrations, Herzing's, i, 7; Maxim's, 4; Stentzel's, 7.
 Fontane, Theodor, obit., iii, 592.
 Ford, A. E., obit., i, 559.
 Forestry, ii, 580, 539, 560.
 Forests in Minnesota, i, 489.
 Formosa, ii, 429.
 Fort Makalle, Abyssinia, illust., i, 4.
 "Forward," the, illustration, ii, 711.
 Foster, J. Y., obit., i, 559.
 Fournier, Alix, obit., ii, 635.
 Fournier, Telesphore, obit., i, 601.
 Fourtoul, M. de, obit., ii, 635.
 Fowler, E. B., obit., i, 559.
 Fowler, L. N., obit., i, 559.
 Fowler, Mary O., obit., iii, 542.
 Fowler, Sir John, obit., iii, 592.
 France, i, 290; ii, 326; iii, 273; Brisson Cabinet, 279; Dupuy Cabinet, 280; constitutional crisis in, i, 293.
 Francis, David R., sketch and port., i, 774.
 Francis, John M., obit., ii, 592.
 Franklin, B. J., obit., iii, 542.
 Franks, A. W., obit., ii, 636.
 Fraser, J. A., obit., iii, 542.
 Frazee, L. F., obit., i, 560.
 Frazer, Douglas, obit., i, 559.
 Frazer, Robert, obit., i, 559.
 Frederic, Harold, obit., iii, 542.
 Free Baptist Church, iii, 284.
 Free Churches, Federation of, ii, 308; Evangelical Federation of, iii, 285.
 French, George F., obit., ii, 592.
 French, John Raymond, obit., ii, 592.
 French, Samuel, obit., iii, 542.
 Frère-Orban, M., obit., i, 601.
 Fresenius, Carl R., obit., ii, 638.
 Friends, i, 298; ii, 333; iii, 285.
 Frink, H. A., obit., iii, 542.
 Fuller, A. S., obit., i, 560.
 Fuller, Levi K., obit., i, 560.
 Fullerton, Joseph S., obit., ii, 592.
 Funereal art, Egyptian, iii, 18.
 Furness, William H., obit., i, 560.
 Fyffe, Joseph, obit., i, 560.
 Gage, H. L., port., iii, 92.
 Gage, Lyman J., sketch and port., ii, 776.
 Gage, Matilda J., obit., iii, 542.
 Galicia, anti-Semitism in, iii, 69.
 Galimberti, Luigi, obit., i, 601.
 Galveston, ii, 766; iii, 723.
 Game preserving in the United States, i, 299.
 Ganewell, J. N., obit., i, 561.
 Garashanin, Milutin, obit., iii, 592.
 Garcia, Calixto, obit., iii, 543.
 Garnier, J. L. C., obit., iii, 592.
 Garrett, Robert, obit., i, 561.
 Gary, James A., sketch and port., ii, 777.
 Gas, natural, iii, 286; location of, illustration, 287.
 Gases, i, 639; ii, 671; iii, 629.
 Gas-motor cars, ii, 747.
 Gast, John, obit., i, 561.
 Gaunt, Percival, obit., i, 561.
 Gautsch, ministry, ii, 67.
 Gee, Thomas, obit., iii, 593.
 Geer, T. T., port., iii, 613.
 Geffcken, F. H., obit., i, 601.
 Gegenscheln, ii, 53.
 Gehrt, Karl, obit., iii, 593.
 Geographical progress and discovery in 1896, i, 801; in 1897, ii, 535.
 George, Henry, obit. and port., ii, 592.
 George, James Z., obit., ii, 593.
 Georgia, i, 811; ii, 341; iii, 288; boundary question, 289.
 German East Africa, i, 252; ii, 288; iii, 233.
 German Evangelical Church, iii, 291.
 German Evangelical Synod, ii, 845.
 German Southwest Africa, i, 112; iii, 109.
 Germany, i, 813; ii, 346; iii, 291; civil code, i, 319; reaction against social reform, 320.
 Gerrymander of Eighteenth Ohio District, illustration, i, 438.
 Gersoni, Henry, obit., ii, 593.
 Ghika, Prince Ion, obit., ii, 636.
 Gholam, H. K., obit., iii, 593.
 Gibbon, John, obit., i, 561.
 Gibbs, J. B., obit., iii, 543.
 Gibbs, Oliver W., port., ii, 81.
 Gibson, William H., obit. and port., i, 561.
 Gifts and Bequests, i, 321; ii, 353; iii, 296.
 Gilbert, John, obit., ii, 636.
 Gilbert, Sir J. T., obit., iii, 593.
 Gilbert J. W., obit., iii, 543.
 Gile, G. W., obit., i, 563.
 Giles, W. T., obit., iii, 543.
 Gill, Theodore N., port., ii, 32.
 Gilling, Bernard, obit., i, 563.
 Ginter, Lewis, obit., ii, 593.
 Glacial man in America, i, 18.
 Gladstone, William E., sketch, iii, 303; view of residence, 304; port., 306.
 Glandular system, i, 649.
 Goddard, F. B., obit., i, 563.
 Godefroid, Felix, obit., ii, 637.
 Godfrey, G. W., obit., ii, 637.
 Gold, discovered in Kentucky, ii, 437; in Alabama, iii, 4; and see METALLURGY.
 Gold-mining convention, ii, 142.
 Goncourt, E. H. de, obit., i, 602.
 Goode, G. B., obit., i, 563.
 Goodell, A. C., obit., iii, 544.
 Goodenough, W. H., obit., iii, 593.
 Goodyear, Charles, obit., i, 564.
 Goto, Shojiro, obit., ii, 637.
 Goulbourn, E. M., obit., ii, 637.
 Gould, B. A., obit. and port., i, 564.
 Government Building, Omaha Exposition, full-page illustration, iii, 249.
 Grace, Agnes, obit., ii, 593.
 Grace, Thomas L., obit., ii, 594.
 Graffito, discovered at Rome, iii, 14.
 Grant, William H., obit., i, 565.
 Grant's tomb, illustration, ii, 320; dedication of, 566.
 Gray, J. B., obit., i, 565.
 Gray, Mercy M., obit., iii, 544.
 Great Britain and Ireland, i, 326; ii, 360; iii, 308.
 Greater New York, i, 526.
 Greatorex, Eliza, obit., ii, 594.
 Greece, i, 837; ii, 21, 373; iii, 318; war with Turkey, 375.
 Green, E. T., obit., i, 505.
 Green, Joseph F., obit., ii, 594.
 Green, Manley C., obit., iii, 544.
 Green, Traill, obit., ii, 594.
 Green, A. S., obit., i, 565.
 Greenhalge, F. T., obit., i, 565.
 Greenland, i, 243.
 Gregory, J. M., obit., iii, 544.
 Greusel, N., obit., i, 565.
 Grey, George, obit., iii, 593.
 Gridley, C. V., obit., iii, 544.
 Groesbeck, William S., obit., ii, 594.
 Gross, W. H., obit., iii, 544.
 Grout, Josiah, port., ii, 810.
 Grove, Sir W. R., obit., i, 602.
 Guadeloupe, i, 823; ii, 821.
 Guanabacoa, a barricaded street, illustration, ii, 267.
 Guarino, Giuseppe, obit., ii, 637.
 Guatemala, i, 339; ii, 385; iii, 321; insurrection in, ii, 385; iii, 321.
 Guiano, British, ii, 820; French, 821; Dutch, 821.
 Gurney, Alfred, obit., iii, 594.
 Gutmann, Edward, obit., i, 565.
 Hagar, D. B., obit., i, 565.
 Hagio Rumeli, gorge of, i, 741.
 Hale, George Silsbee, obit., ii, 594.
 Hale, Horatio, obit., i, 566.
 Hall, A. O., obit., iii, 544.
 Hall, Ephraim B., obit., iii, 545.
 Hall, I. H., obit., i, 566.
 Hall, J. W. D., obit., i, 566.
 Hall, James, obit. and port., iii, 545.
 Hall, John, obit., iii, 546.
 Halliday, Samuel B., obit., ii, 595.
 Halsey, H. P., obit., iii, 546.
 Hamid bin Thwain bin Said, obit., i, 602.
 Hamilton, C. W., obit., i, 566.
 Hamilton, J. B., obit., iii, 546.
 Hamilton, J. M., obit., iii, 547.
 Handy, M. P., obit., iii, 547.
 Handy, T. P., obit., iii, 547.
 Harbor improvements, i, 813.
 Harden, W. D., obit., iii, 547.
 Hardshell Baptists described, iii, 74.
 Hardy, George E., obit., ii, 595.
 Harper, J. W., obit., i, 566.
 Harper, P. J. A., obit., i, 566.
 Harrar expedition, proposed, i, 5.
 Harrington, George W., obit., ii, 595.
 Harris, Sir Augustus, obit., i, 602.
 Harris, Henry H., obit., ii, 595.
 Harris, Isham G., obit. and port., ii, 595.
 Harris, J. N., obit., i, 566.

- Harris, R. L., obit., i, 567.
 Harris, R. S., obit., iii, 547.
 Haskell, James R., obit., ii, 596.
 Haskell, J. T., obit., iii, 547.
 Hastings, Daniel H., port., ii, 661.
 Haupt, William A., obit., i, 567.
 Havelock-Allan, H. M., obit., ii, 638.
 Hawaii, i, 340; ii, 386; iii, 322; annexation treaty, ii, 387; annexation of, iii, 189, 322.
 Haweis, Mary E. J., obit., iii, 594.
 Haxton, Milton, obit., iii, 548.
 Hay, John, sketch and port., iii, 729.
 Hayes, J. B., obit., iii, 548.
 Haygood, A. G., obit., i, 567.
 Hayti, i, 341; ii, 390; iii, 323.
 Hazard, Rowland, obit., iii, 548.
 Headley, Joel T., obit., i, 596.
 Heat, i, 640.
 Heaton, J. A., obit., ii, 638.
 Heckman, Charles A., obit., i, 567.
 Heemskerk, M. A. J., obit., ii, 638.
 Heine, Cécile C. F., obit., i, 608.
 Herrmann, Alexander, obit., i, 567.
 Helium, iii, 111.
 Hendren, J. N., obit., iii, 548.
 Henley, E. J., obit., iii, 548.
 Herrmann, C. W. A., obit., iii, 548.
 Herter, R. J., obit., iii, 549.
 Herz, Cornelius, obit., iii, 595.
 Hesing, Washington, obit., ii, 596.
 Hewit, Nathaniel A., obit., ii, 596.
 Hewlett, Henry G., obit., ii, 638.
 Hieroglyphic signs, illustration, ii, 21.
 Hieronymo, Mother, obit., see O'BRIEN, VERONICA, iii, 560.
 High license in Michigan, i, 484.
 Hill caves of Yucatan, i, 17.
 Hillebrandt, Hugo, obit., i, 567.
 Hinckley, Thomas H., obit., i, 568.
 Hippolyte, L. M. F., obit., i, 603.
 Hirsch de Gereuth, Baron Maurice de, obit. and port., i, 603.
 Hitchcock, E. A., note and port., iii, 780.
 Hitrovo, M., obit., i, 603.
 Hoagland, C. N., obit., iii, 549.
 Hobart, Garret A., sketch and port., i, 343; view of schoolhouse, 344.
 Hoey, Josephine S., obit., i, 568.
 Hoffman Charles F., obit., ii, 596.
 Hohenlohe-Schillingsfürst, Prince Gustaf Adolf, obit., i, 604.
 Holcomb, Silas H., port., ii, 540.
 Holden, Isaac, obit., ii, 638.
 Holden, Martha E., obit., i, 568.
 Holland. See NETHERLANDS.
 Holley, George W., obit., ii, 597.
 Holman, William S., obit., ii, 597.
 Holmes, George F., obit., ii, 597.
 Holmea, Samuel, obit., ii, 597.
 Holt, H. A., obit., iii, 549.
 Holt, T. M., obit., i, 568.
 Honduras, i, 344; ii, 392; iii, 323; political conspiracy in, 345.
 Hong-Kong, extension of, iii, 128.
 Hopkins, Perry, obit., ii, 597.
 Hoppin, Augustus, obit., i, 568.
 Horr, R. G., obit., i, 568.
 Horses, wild, ii, 546.
 Hosmer, Margaret, obit., ii, 597.
 Hospital tent, illustration, iii, 769.
 Hot Springs, Ark., i, 29.
 Hotto, Henry, obit., iii, 549.
 Houghton, George H., obit., ii, 597.
 House in Carmen del Crespo, illustration, ii, 255.
 Housseaye, Arsène, obit., i, 604.
 Houston, J. W., obit., i, 568.
 Hovey, Charles E., obit., ii, 598.
 How, William W., obit., ii, 638.
 Howard, Blanche W., obit., iii, 549.
 Howard, Harry, obit., i, 568.
 Howe, Albion P., obit., ii, 598.
 Howlett, T. R., obit., iii, 549.
 Hoyt, C. S., obit., iii, 549.
 Hubbard, Gardiner G., obit., ii, 598.
 Hughes, Thomas, obit. and port., i, 604.
 Hulet, Maurice d', obit., i, 605.
 Hungary, i, 69; ii, 69; iii, 69; millennial exposition (with illustrations) 70.
 Hunt, A. S., obit., iii, 550.
 Hunt, A. W., obit., i, 605.
 Hunt, Sanford, obit., i, 569.
 Hunter, A. S., obit., i, 569.
 Hunter, M. C., obit., i, 569.
 Hurricane, disastrous, in Florida, i, 289.
 Hurt, A. D., obit., iii, 550.
 Hutton, Richard H., obit., ii, 639.
 Hydrogen, liquefaction of, iii, 111.
 Iceland, i, 242.
 Ice making, ii, 146; iii, 666.
 Idaho, i, 345; ii, 392; iii, 324.
 Idaho, irrigation in, i, 346.
 Ida, Horace K., obit., ii, 599.
 Ifugao Indian, illustration, i, 637.
 Illinois, i, 347; ii, 394; iii, 325; canals, 327.
 Iloilo, street in, iii, 626; occupied, 771.
 Immigration, ii, 567, 780; convention in Montana, i, 497; congress in South Dakota, 707.
 India, i, 350; ii, 396; iii, 328; famine in, ii, 399; relief, 541; ruins of Dimaput, 24; the plague in, iii, 332; frontier war, 333; sedition law, 338.
 Indiana, i, 355; ii, 409; iii, 334; apportionment law, i, 357; boundary question, 357; results of Nicholson law, 357.
 Indians, i, 790, 841; ii, 556; sale of liquor to, 180; appropriations for, 780; reservations, iii, 667; encampment, full-page illustration, 254.
 Ingelow, Jean, sketch and port., ii, 414.
 Inman, J. H., obit., i, 569.
 Insurance, i, 780.
 International law, institute of, iii, 476.
 International Workers' Congress, i, 336.
 Iowa, i, 359; ii, 416; iii, 338; anti-cigarette law, i, 360; semicentennial celebration, 360; soldiers' monuments, 360.
 Ireland, i, 326; ii, 360; iii, 308.
 Irish parties, i, 336.
 Iron. See METALLURGY.
 Iron age in aboriginal art, i, 18.
 Iron Gate of the Danube, illustration, i, 71; map, 72.
 Irrigation, i, 134; in Arizona, i, 27; ii, 28; in California, i, 91; in Colorado, iii, 136; in Idaho, i, 345; ii, 394; in Nebraska, i, 504; in New Mexico, ii, 555; iii, 491; in Utah, 819; in Washington, 826; in Wyoming, i, 841.
 Irrigation law in California, i, 91.
 "Israel" in hieroglyphics, illustration, i, 23.
 Italian defeat in Abyssinia, i, 2.
 Italian policy, ii, 2.
 Italy, i, 363; ii, 421; iii, 342; bread riots, 344; dispute with Colombia, 134.
 Jackson, H. R., obit., iii, 550.
 Jamaica, i, 822; ii, 820.
 Jameson, Dr., raid in the Transvaal, i, 100; surrender, 102; trial, 108.
 Janseus, Francis, obit., ii, 599.
 Japan, i, 366; ii, 427; iii, 347.
 Jardine Brothers, obit., i, 569.
 Jeffries, Noah L., obit., i, 569.
 Jenner, William, obit., iii, 595.
 Jennings, Patrick A., obit., ii, 639.
 Jermain, James B., obit., ii, 599.
 Jerome, D. H., obit., i, 569.
 Jervois, W. F. D., obit., ii, 639.
 Jesus, sayings of, ii, 23.
 Jewett, H. J., obit., iii, 550.
 Jewett, Lyman, obit., ii, 599.
 Jews, i, 369; ii, 429; iii, 349.
 Joergensen, Adolf D., obit., ii, 640.
 Johannesburg rising, the, i, 102.
 Johnson, Rachel, obit., iii, 551.
 Johnson, Richard W., obit., ii, 599.
 Johnston, J. F., obit., iii, 8.
 Johnston, R. M., obit., iii, 551.
 Jones, Charles W., obit., ii, 599.
 Jones, Daniel W., port., iii, 21.
 Jones, G. W., obit., i, 570.
 Jones, John E., obit., i, 570.
 Jones, Joseph B., obit., i, 570.
 Jones, William B., obit., ii, 639.
 Josephine, Mother, obit., iii, 551.
 Joubert, Gen. P. J., port., i, 105.
 Joy, J. D. W., obit., iii, 551.
 Jubilee, the Queen's, ii, 365.
 Judiciary, United States, i, 757.
 Jupiter, ii, 52; satellites, iii, 51.
 Jurash rapid, British gunboat in, illustration, i, 261.
 Kaffirs, subjugation of the, i, 8.
 Kahnweiler, David, obit., iii, 551.
 Kalaa, ruins of, ii, 24.
 Kalnoky, Gustav S., obit., iii, 595.
 Kansas, i, 371; ii, 431; iii, 350.
 Kanthack, A. A., obit., iii, 595.
 Karl, Ludwig, obit., i, 605.
 Kassala, siege of, i, 5.
 Kavanagh, John, obit., iii, 551.
 Keely, J. E. W., obit., iii, 551.
 Keely, P. C., obit., i, 570.
 Keene, T. W., obit., iii, 552.
 Kekule, F. A., obit., i, 605.
 Kenaday, Alexander McConnell, obit., ii, 600.
 Kennedy, A. L., obit., i, 570.
 Kenrick, P. R., obit., i, 570.
 Kent, Mehetabel T., obit., i, 570.
 Kentucky, i, 374; ii, 436; iii, 355; centenary celebration, 356; lottery closed, 356; destruction of toll i, 375; gates, mob violence in, 375; monument to pioneer women, 375.
 Key monument, i, 453.
 Keyes, Emerson W., obit., ii, 600.
 Kiauchau, leased, iii, 124.
 Kiaochow, seizure of, ii, 138.
 Kilgore, Constantine Buckley, obit., ii, 600.
 Kimball, Alonzo S., obit., ii, 600.
 Kinetoscope pictures, ii, 438.
 King, Edward, obit., i, 571.
 King, Horatio, obit., ii, 600.
 Kingsford, William, obit., iii, 595.
 Kingsley, W. L., obit., i, 571.
 Kirkland, W. A., obit., iii, 552.
 Kitchener, Sir H. H., sketch, iii, 357; port., 358.
 Kites and kite flying, ii, 440.
 Klondike, the, ii, 443.
 Knapp, A. M., obit., iii, 552.
 Kneipp, Sebastian, obit., ii, 640.
 Knight, C. P., obit., ii, 640.
 Knight-Bruce, G. W., obit., i, 605.
 Knox, T. W., obit., i, 571.
 Kohler, John, obit., iii, 552.
 Kolpakovsky, Gen., obit., i, 605.
 Korea, i, 378; ii, 445; iii, 358; gold mines, 359.
 Kosch's mechanism to show power of circular wings, illustration, ii, 6.
 Koyari dwelling, illustration, i, 63.
 Kramer, J. W., obit., iii, 553.
 Kraus, John, obit., i, 571.
 Kung, Prince, obit., iii, 595.
 Kymographion record of a criminal, i, 676.
 Labaree, Elizabeth, obit., iii, 553.
 Labberton, R. Van H., obit., iii, 553.

- Labiograph, i, 676.
 Labor interests, ii, 411; statistics, 560; questions, 371; congress, 755.
 Ladrone, the, iii, 360; village of Saypan, illustration, 361; occupied, 757.
 Lake dwelling, ancient, iii, 13.
 Lakey, Emily J., obit., i, 571.
 Lambert, Thomas S., obit., ii, 600.
 Land frauds, i, 92.
 Lands, public, iii, 731.
 Lane, George M., obit., ii, 600.
 Langford, William S., obit., ii, 601.
 Langley's aërodrome, illustration, ii, 5.
 Langston, John N., obit., ii, 601.
 Lansil, Wilbur H., obit., ii, 601.
 Lansing, Mich., ii, 528.
 La Paz, palace of, congress at, illustration, iii, 85.
 Larsson, Olaf, obit., i, 606.
 Laryngograph, i, 676.
 Lathrop, G. P., obit., iii, 553.
 Latimer, G. W., obit., i, 572.
 Laugée, Désirée, obit., i, 606.
 Laurie, Thomas, obit., ii, 601.
 Lawlessness in North Carolina, i, 536; in South Carolina, 704; in Arkansas, ii, 29; in Georgia, 344; in Florida, 324; in Kentucky, 437; iii, 356; in Louisiana, 437; in North Dakota, 573; in Virginia, 823. See also **LYNCHING** and **MOB LAW**.
 Lawton, A. R., obit., i, 572.
 Lea, Matthew Carey, obit., ii, 601.
 Leadville, Col., strike at, i, 134.
 Lee, Andrew E., port., ii, 734.
 Lee, J. F., obit., iii, 554.
 Lee, Samuel P., obit., ii, 601.
 Leedy, John W., port., ii, 432.
 Leeward Islands, i, 822; ii, 820.
 Legal holidays in Alabama, i, 10.
 Legge, James, obit., ii, 640.
 Leggett, M. D., obit., i, 572.
 Leighton, Frederick, obit. and port., i, 606.
 Leighton, Scott, obit., iii, 554.
 Leoser, C. McK., obit., i, 572.
 Leslie, Edward, obit., i, 572.
 Lewis, James, obit., i, 572.
 Lewis, T. H., obit., iii, 596.
 Lewis, W. O., obit., i, 572.
 Liberation Society, the, i, 14; ii, 13; iii, 6.
 Liberia, i, 821; iii, 361.
 Libraries, New York public, ii, 565; congressional, 795; in Wisconsin, 827.
 Liddell, H. G., obit., iii, 596.
 Liezen-Meyer, Alexander, obit., iii, 596.
 Life zones, ii, 555.
 Light, i, 640.
 Lighthouses, recent progress in, iii, 361.
 Lincoln, F. W., obit., iii, 554.
 Lindsley, John B., obit., ii, 602.
 Lintner, A. B., obit., iii, 554.
 Linton, Elizabeth L., obit., iii, 596.
 Linton, William J., obit., ii, 602.
 Liquefied air, iii, 363.
 Liquids, i, 638.
 Lister, Sir Joseph, port., i, 39.
 Literature, American, in 1896, i, 380; ii, 447; in 1898, iii, 365; British in 1896, i, 400; in 1897, ii, 466; in 1898, iii, 384; Continental in 1896, i, 409; in 1897, ii, 477; in 1898, iii, 395; Spanish-American, ii, 488; Latin-American in 1898, iii, 406.
 Littell, Robert, obit., i, 573.
 Little Rock, Ark., i, 29.
 Lillenthal's soaring apparatus, illustration, ii, 5.
 Livessidge, Archibald, port., iii, 44.
 Lobanoff-Rostofski, Prince A. B., obit., i, 606.
 Lobster fisheries, iii, 519.
 Local option in Connecticut, i, 223.
 Lockwood, Frank, obit., ii, 640.
 Logia, the, ii, 23.
 Long, John D., sketch and port., ii, 776.
 Lord, William P., port., ii, 657.
 Los Angeles, ii, 100.
 Lothaire, trial of Major, i, 140.
 Louise, Queen, obit., iii, 596.
 Louisiana, i, 421; ii, 488; iii, 407; new Constitution, 408.
 Lounsbury, G. E., port., iii, 210.
 Love, J. J. H., obit., ii, 603.
 Love, William De L., obit., iii, 554.
 Lowe, W. W., obit., iii, 554.
 Lowell, John, obit., ii, 603.
 Lowndes, Lloyd, port., iii, 420.
 Ludlow, B. C., obit., iii, 555.
 Lugard, Edward, obit., iii, 596.
 Lunt, Orrington, obit., ii, 603.
 Lusk, William T., obit., ii, 603.
 Lutherans, i, 425; ii, 490; iii, 410.
 Luys, Jean Bernard, ii, 640.
 Lyman, Theodore, obit., ii, 603.
 Lynching, in Alabama, ii, 11; the Urbana, 651; in Maryland, iii, 422; in Mississippi, 460; in Missouri, 462; in North Carolina, 508; the Versailles, 337.
 Lyon, I. W., obit., i, 573.
 MacArthur, C. L., obit., iii, 555.
 McCormick, T. F., obit., iii, 555.
 McCullagh, J. B., obit., i, 573.
 McDonald, Alexander, obit., ii, 604.
 Macedonia, agitation in, i, 746.
 Macedonian question, i, 88; iii, 726.
 Maceo, Antonio, obit., i, 607.
 Maceo, death of, ii, 262.
 Maceo, José, obit., i, 607.
 McGiffin, Philo N., obit., ii, 604.
 McGovern, Thomas, obit., iii, 555.
 McGowan, Samuel, obit., ii, 604.
 McGuffey, A. H., obit., i, 573.
 Mellvaine, Joshua H., obit., ii, 604.
 Mackay, G. E., obit., iii, 597.
 McKean, Thomas, obit., iii, 555.
 McKenna, Joseph, sketch and port., ii, 777.
 McKibbin, J. C., obit., i, 573.
 McKinley, William, sketch and birthplace, i, 428; portrait, frontispiece, speeches, 671.
 McKinley, Nancy A., obit., ii, 604.
 McLane, R. M., obit. and port., iii, 555.
 McLaws, Lafayette, obit. and port., ii, 604.
 Macmillan, Alexander, obit., i, 607.
 McMillan, Samuel, J. R., obit., ii, 605.
 MacMullen, J., obit., i, 573.
 Macpherson, Sir D. L., obit., i, 608.
 McPherson, John R., obit., ii, 605.
 McReynolds, A. T., obit., iii, 556.
 McVicker, J. H., obit., i, 573.
 Madagascar, i, 442; ii, 494; iii, 414; French annexation of, i, 442; rebellion in, 443.
 Madrazo, Federico, obit., iii, 597.
 Magnetism, i, 646; ii, 678; iii, 636.
 Main, Thomas, obit., i, 573.
 Maine, i, 444; ii, 495; iii, 414; pulp and paper mills, 417.
 Maine, the, destruction of, iii, 737; illustration, 738.
 Malcolm, George, obit., ii, 640.
 Malietoa, Laupepa, obit., iii, 597.
 Mallarmé, Stéphane, obit., iii, 597.
 Mallon, Isabel A., obit., iii, 556.
 Mallory, George S., obit., ii, 605.
 Manchester, N. H., i, 515.
 Manchurian railroad, iii, 128.
 Manila, harbor of, illustration, i, 635; captured, iii, 766.
 Manitoba, Province of, i, 447; ii, 497; iii, 418; school question, ii, 104.
 Manufacturers, National Association of American, i, 448.
 Manufactures, i, 778.
 Manuscripts, Hebrew, ii, 23.
 Manzanillo, action at, iii, 766.
 Marcow, Jules, obit., iii, 556.
 Maretzek, Max, obit., ii, 605.
 Mariana Islands, the, iii, 360.
 Marine Hospital, Chicago, illustration, i, 451.
 Marine Hospital Service, i, 449.
 Marks, Stacy, obit., iii, 597.
 Marquardson, Heinrich, obit., ii, 641.
 Marriages, unlawful, i, 14.
 Mars, i, 47; ii, 52; iii, 51.
 Marsland, Edward, obit., iii, 556.
 Martin, Homer, obit., ii, 605.
 Martineau, Russell, obit., iii, 597.
 Martinique, i, 824; ii, 821.
 Marty, Martin, obit. and port., i, 574.
 Maryland, i, 452; ii, 499; iii, 420; boundary question, 422; Key monument, i, 453; militia, 453; war records, 453.
 Mason, Alexander M., obit., ii, 606.
 Mason, E. C., obit., iii, 557.
 Mason, John S., obit., ii, 606.
 Mason, Luther W., obit., i, 574.
 Massachusetts, i, 455; ii, 500; iii, 422; veterans' preference act, i, 456; centenary of Statehouse, iii, 424.
 Massett, Stephen, obit., iii, 557.
 Matabele revolt, i, 110.
 Mather, Margaret, obit., iii, 557.
 Matthews, Claude, obit., iii, 557.
 Mayer, Alfred M., obit. and port., ii, 606.
 Maynard, I. H., obit., i, 574.
 Maynard, J. P., obit., iii, 558.
 Mayo, Frank, obit., i, 574.
 Meade, Richard W., obit., ii, 607.
 Mechanics, i, 638.
 Mechanics, Junior Order of United American, ii, 504.
 Mecklenburg-Schwerin, F. F., III, obit., ii, 641.
 Meignan, Guillaume, obit., i, 608.
 Meilhac, Henri, obit., ii, 441.
 Méline Cabinet, the, i, 294.
 Memorials in Pennsylvania, ii, 662.
 Menelek, negotiations with, i, 5.
 Mercur, James, obit., i, 575.
 Mercury, ii, 52; iii, 50.
 Meredith, H. C., obit., iii, 558.
 Merrick, Edward T., obit., ii, 608.
 Merrill, Joseph, obit., iii, 558.
 Merrill, Lewis, obit., i, 575.
 Meyster, William A., obit., i, 567.
 Metallurgy, i, 458; ii, 505; iii, 427.
 Metals, refractory, i, 463; precious, see **METALLURGY**.
 Meteoric iron, iii, 56.
 Meteoric shower, next great, i, 51.
 Meteorology, i, 468; ii, 514; iii, 436.
 Meteors, photography of, iii, 54.
 Methodists, i, 472; ii, 518; iii, 441.
 Mettam, Charles, obit., ii, 608.
 Mexico, i, 480; ii, 524; iii, 452.
 Meyer, Juergen B., obit., ii, 641.
 Michigan, i, 482; ii, 526; iii, 451; high license in, i, 484; statistics of voters, 483; food inspection, iii, 453.
 Military Academy, United States, illustration, ii, 797.
 Military park, ii, 196.
 Militia of Maryland, i, 453.
 Millais, Sir John Everett, sketch and port., i, 486; residence of, illustration, 487.
 Miller, H. M. V., obit., i, 575.
 Miller, Madison, obit., i, 575.
 Miller, Samuel A., obit., ii, 608.
 Mills College, i, 832.
 Mills, S. B., obit., iii, 558.
 Miners' Congress in Germany, i, 321.

- Miners' Convention in Alabama, iii, 4.
 Mines and mining, i, 779.
 Minnesota, i, 488; ii, 529; iii, 456; growth of cities, i, 489; forests, 489; mob violence, 489; constitutional amendments, 490; new Capitol, iii, 457.
 Missionaries in China, i, 181; attacks on, ii, 188.
 Missionary Union, the Baptist, i, 74; iii, 71.
 Mississippi, i, 490; ii, 531; iii, 458; poll tax, i, 491; water ways, 491; race trouble, iii, 460; Deaf and Dumb Institute, 460.
 Mississippi river, report of, i, 494.
 Missouri, i, 493; ii, 533; iii, 461.
 Missouri river, i, 494; source of the, ii, 537; levees, iii, 461.
 Mitchell, Mrs. Zerviah Gould, obit., iii, 558.
 Mittal question, the, ii, 8.
 Mizner, J. K., obit., iii, 558.
 Mob law, in Nevada, ii, 546; iii, 478; in Oklahoma, 609; in South Carolina, 699.
 Mob violence, ii, 571; iii, 289; in Mississippi, ii, 532; in Indiana, 411; in Kansas, iii, 553; in Louisiana, iii, 408; in Missouri, ii, 534; in Tennessee, 757; in Texas, ii, 765; iii, 723.
 Moebius, Bernard, obit., iii, 559.
 Mohammedan disturbances, ii, 408.
 Mohammedan rebellion, i, 131.
 Monaco la Valetta, Raffaele, obit., i, 608.
 Monescillo y Viso, Antolino, obit., ii, 641.
 Money Conference, International, ii, 188.
 Montana, i, 496; ii, 535; iii, 463; sheep and wool, i, 496; immigration convention in, 497; bounty claims, iii, 465; new Capitol, 466; reclamation of arid lands, 466.
 Montpensier, Infanta Marie L. F., obit., ii, 641.
 Monument, battle, ii, 561.
 Monuments in Connecticut, i, 224; at Crane Hook, 239; in New York city, 531; iii, 504—State, ii, 571.
 Moon, the, i, 48.
 Moore, Michael, obit., ii, 608.
 Moplahs, insurrection of, i, 854.
 Mora, Antonio M., obit., ii, 608.
 Morais, Sabato, obit., ii, 609.
 Moravians, i, 498; ii, 538; iii, 466.
 Moreau, Gustave, obit., iii, 597.
 Mores, Antoine M. de V., obit., i, 603.
 Morfit, Campbell, obit., ii, 609.
 Morgan, J. D., obit., i, 575.
 Morison, J. H., obit., i, 575.
 Mormon Church, i, 799; iii, 819.
 Mormons, attack on, ii, 732.
 Morrill, J. S., obit., iii, 559.
 Morris, William, sketch and port., i, 499; residence, Hammersmith, illustration, 500.
 Morrison, David, obit., i, 576.
 Morro Castle, Santiago, illustration, iii, 755.
 Morse, Cyrus B., obit., i, 576.
 Morse, E. A., obit., iii, 559.
 Morse, Henry W., obit., ii, 609.
 Mortgages, real-estate, i, 781.
 Mortality, i, 783.
 Motor carriages, iii, 467.
 Mott, H. A., obit., i, 576.
 Mound builders, symbolical inscriptions, i, 18.
 Mount Holyoke College, i, 831.
 Mount, James A., port., ii, 409.
 Mount Mayon, illustration, iii, 624.
 Mueller, Louis, obit., iii, 559.
 Mueller, Sir F. von, obit., i, 608.
 Mulet law, the, in Iowa, ii, 418.
 Muller, George, obit., iii, 597.
 Mundella, Anthony J., obit., ii, 641.
 Mundweiler, Fenton, obit., iii, 559.
 Mundy, Johnson M., obit., ii, 609.
 Munger, A. A., obit., iii, 559.
 Munk, William, obit., iii, 598.
 Munro, George, obit., i, 576.
 Murray, Eli H., obit., i, 576.
 Muscular system, i, 650; ii, 684; iii, 643.
 Museum in La Plata, iii, 19.
 Mutsu, Munemitsu, obit., ii, 642.
 Myer's sky cycle, illustration, ii, 7.
 Nansen, Dr. F., port., i, 301; map showing route, 302; map showing projected and actual routes, 303.
 Narragansett, the, i, 683.
 Nash, S. P., obit., iii, 559.
 Nashville Exposition, ii, 759.
 Nasreddin (Shah), obit., i, 608.
 Natal, i, 98; ii, 111; iii, 108.
 National Academy of Sciences, i, 502; ii, 588; iii, 471.
 National defense, measure for the, iii, 164.
 Natural gas, waste of, ii, 411.
 Naval Academy, United States, with illustration, ii, 799.
 Neafie, J. G., obit., iii, 560.
 Nebraska, i, 503; ii, 640; iii, 471; irrigation, i, 504; public lands, 504.
 Nebulae, discovery of, ii, 52; iii, 52.
 Negri, Cristoforo, obit., i, 609.
 Nelson, Thomas L., obit., ii, 610.
 Nemours, L. C. P. R. d'O., obit., i, 609.
 Nervous system, i, 651; ii, 684; iii, 844.
 Netherlands, i, 507; ii, 542; iii, 475.
 Neuendorff, Adolph H. A. M., obit., ii, 610.
 Nevada, i, 510; ii, 545; iii, 477, poll-tax law, 479.
 New Bedford, commemorations, ii, 502.
 New Brunswick, Province of, i, 512; ii, 547; iii, 479; temperance legislation, i, 513.
 Newfoundland, i, 513; ii, 548; iii, 481; naval reserve, 483; new railway, 481; paper pulp, 482; whale fishery, 483.
 New Guinea, i, 64; iii, 64.
 New Hampshire, i, 514; ii, 550; iii, 483; road-building, 485; Law and Order League, 485; forests, 486.
 New Jersey, i, 517; ii, 552; iii, 487; State flag, i, 519; riparian fund, iii, 489; factories and wages, 489; dependent children, disabled soldiers, 489.
 Newman, Francis W., obit., ii, 642.
 New Mexico, i, 520; ii, 555; iii, 489; sheep, 491; Territorial Capitol, illustration, 490.
 New South Wales, i, 59; ii, 62; iii, 62.
 Newton, G. B., obit., iii, 560.
 Newton, H. A., obit. and port., i, 576.
 New York city (with a colored map of Greater New York), i, 527; ii, 561; iii, 499; Botanic Garden, i, 531; monuments, 531; zoological park, 531; art commission, iii, 504; rapid transit railroad commission, 503; Charter Day, 505; naval parade, 505; public library, 504.
 New York State, i, 522; ii, 556; iii, 491; factory inspection, i, 525; historical department, 525; canals, iii, 495; National Guard, Forest Preserve Board, 497; State library, Niagara reservation, 498.
 New Zealand, i, 63; ii, 64; iii, 63.
 Nicaragua, i, 532; ii, 568; iii, 506; rebellion in, i, 532; dispute with Costa Rica, iii, 213.
 Nicholas, Ernest, obit., iii, 598.
 Nicholson, Eliza J., obit., i, 577.
 Nickel, i, 462.
 Niger Company's Territory, i, 815; Coast Protectorate, 817.
 Nile, view of, at Khartoum, iii, 238; campaign of the, 237.
 Niipe, action at, iii, 766.
 Nobel, Alfred, obit., i, 609.
 No-Man's Land, i, 621.
 North Carolina, i, 534; ii, 569; iii, 507; boundary, i, 535; Willard colony, 535; lawlessness, 536; race troubles, iii, 509.
 North Dakota, i, 537; ii, 572; iii, 513; divorce in, i, 538; prohibitory law, 539.
 North, J. T., obit., i, 609.
 Northrop, B. G., obit., iii, 580.
 Northwest Territories of Canada, i, 540; ii, 575; iii, 517.
 Norway, i, 722; ii, 753.
 Nova Scotia, Province of, i, 541; ii, 575; iii, 518; lobster fisheries, 519.
 Noxious animals, ii, 536.
 Nyassaland, i, 253.
 Nye, Edgar W., obit., i, 577.
 Obituaries, American, in 1896, i, 542; in 1897, ii, 577; in 1898, iii, 520; foreign, in 1896, i, 596; in 1897, ii, 628; in 1898, iii, 582.
 Obok, Somaliland, illustration, i, 7.
 O'Brien, Veronica, obit., iii, 560.
 Oertel, Max Josef, obit., ii, 642.
 Ohio, i, 617; ii, 650; iii, 605.
 Oil vapor as a motive power, ii, 747.
 Okefenokee Swamp, ii, 343.
 Oklahoma, i, 620; ii, 653; iii, 608.
 Old Catholic Church, i, 622; ii, 655.
 Old-Order Brethren, i, 84.
 Oliphant, Margaret, obit. and port., ii, 642.
 Oller, Jacob F., obit., ii, 610.
 Olympic games, i, 339.
 Omaha Exposition, iii, 249.
 Ontario, i, 622; ii, 655; iii, 611; lumber question, 612.
 Ontonagon, Mich., i, 485.
 Oquendo, wreck, illustration, iii, 764.
 Orange Free State, i, 99; ii, 112; iii, 103.
 Ordway, Albert, obit., ii, 610.
 Ordway, Alfred, obit., ii, 611.
 Oregon, i, 624; ii, 657; iii, 613; cascade locks, i, 625; water ways, 625; reservations, 627; semicentennial, 627.
 Oregon, battle ship, full-page illustration, iii, 624.
 Oriental churches in the United States, ii, 660.
 Orton, Arthur, obit., iii, 598.
 Osborn, T. A., obit., iii, 560.
 Osborne, Phoebe S., obit., ii, 611.
 Otero, Miguel A., port., ii, 555.
 Otis, Elwell S., sketch and port., iii, 616.
 Outlawry in Arizona, i, 27.
 Overton, Cal., ii, 100.
 Oyster industry in New Jersey, ii, 554; in Virginia, 812.
 Packard, S. S., obit., iii, 560.
 Pacific Islands, British annexation of, ii, 388.
 Pacific Railway funding bill, i, 220.
 Paddock, Algernon S., obit., ii, 611.
 Paige, L. R., obit., i, 577.
 Palestine, ii, 21.
 Palgrave, Francis T., obit., ii, 644.
 Palmieri, Luigi, obit., i, 610.
 Pamir boundary, i, 8.
 Panama Canal, the, i, 133; ii, 140; iii, 134.
 Panama scandals, the, ii, 831.
 Pancoast, William H., obit., ii, 611.

- Papal claims, iii, 7.
 Papyri, the *Oxyrhynchus*, iii, 17.
 Paraguay, i, 628; ii, 660; iii, 618; boundary dispute, ii, 660.
 Park, J. D., obit., i, 577.
 Parker, I. C., obit., i, 577.
 Parker, Jennie, obit., iii, 561.
 Parkes, Sir Henry, obit., i, 610.
 Parmelee, Dubois D., obit., ii, 611.
 Parrott, P. P., obit., i, 577.
 Parsloe, C. T., obit., iii, 561.
 Parvin, Theophilus, obit., iii, 561.
 Pasko, Wesley W., obit., ii, 611.
 Patmore, Coventry K. D., obit. and port., i, 610.
 Patent laws, ii, 191.
 Patent Office, i, 750; ii, 780.
 Payn, James, obit., iii, 598.
 Payne, H. B., obit., i, 578.
 Pea packing, ii, 500.
 Peabody, O. W., obit., i, 578.
 Peace commissioners, American (ports.), iii, 772.
 Peace Congress, i, 72.
 Peace jubilee, Georgia, iii, 289; Illinois, 327; Pennsylvania, 620; at Trans-Mississippi Exposition, 256.
 Peace negotiations, iii, 767; treaty, 772.
 Pearson, John L., obit., ii, 644.
 Pearla, discoveries of, ii, 29.
 Peele, John Thomas, obit., ii, 611.
 Peet, I. L., obit., iii, 561.
 Pender, Sir John, obit., i, 611.
 Pennington, Minn., tornado, iii, 457.
 Penobscot Indians, i, 448.
 Pennsylvania, i, 628; ii, 660; iii, 618; new Capitol, ii, 663; iii, 620; Delaware river, i, 630; silk manufacture, 630; statues unveiled, 630.
 Pensions, i, 749; i, 779; slated, 195; pensions, Confederate, iii, 509; United States, 731.
 Pepper, William, obit., iii, 561.
 Perkins, Elmira J., obit., i, 578.
 Pernambuco, view of port, iii, 86.
 Perry, Nora, obit., i, 578.
 Perry, W. S., obit., iii, 562.
 Persia, i, 632; ii, 665; iii, 623.
 Peru, i, 633; ii, 665; iii, 623.
 Peru, revolution in, i, 634.
 Peters, A. W., obit., iii, 562.
 Petrie's discoveries, ii, 24.
 Petroleum lands, ii, 195.
 Peyton, Jesse Enlow, obit., ii, 612.
 Philippine Islands, i, 635; ii, 666; iii, 624; harbor of Manila, illustration, i, 635; war in the, iii, 750, 757; colored map, 626; revolutionary Government, 772.
 Phillips, Stephen H., obit., ii, 612.
 Photographic charts of the sky, i, 50.
 Photographing nebulae and clusters, i, 50.
 Photography, lunar, ii, 55; celestial, iii, 53.
 Physics, i, 636; in 1897, ii, 670; iii, 628.
 Physiology, i, 646; ii, 678; iii, 627.
 Picknell, William L., obit., ii, 612.
 Pierce, Edward L., obit., ii, 612.
 Pierce, F. E., obit., i, 578.
 Pierce, H. L., obit., i, 578.
 Pillsbury, G. A., obit., iii, 562.
 Pillsbury, Parker, obit., iii, 562.
 Pingree, Hazen S., port., ii, 526.
 Pitt, H. M., obit., iii, 599.
 Plague, the, ii, 139; in India, 401.
 Plaisted, H. M., obit., iii, 562.
 Platforms, political, i, 759 *et seq.*
 Pleasonton, Alfred, obit. and port., ii, 613.
 Pleiades, the, i, 20.
 Plethysmograph, i, 675.
 Plimsoll, Samuel, obit., iii, 599.
 Plötz, Berthold, obit., iii, 599.
 Plunket, William C., obit., ii, 645.
 Poland, J. S., obit., iii, 563.
 Poll tax in Mississippi, i, 491.
 Pollock, Charles E., obit., ii, 645.
 Pomeroy, M. M., obit., i, 579.
 Pool, Maria L., obit., iii, 563.
 Poor, Daniel W., obit., ii, 613.
 Port Arthur, leased, iii, 126.
 Port Elizabeth, full-page illustration, iii, 103.
 Port Moresby, illustration, i, 61.
 Porter, Albert G., obit., ii, 613.
 Porter, J. H., obit., i, 579.
 Porto Rico, ii, 821; iii, 648; colored map, 648; military operations in, 765.
 Portugal, i, 655; ii, 688; iii, 648; colonies of, i, 656; iii, 109.
 Portuguese East Africa, i, 253.
 Potter, T. B., obit., iii, 600.
 Potts, S. G., obit., iii, 563.
 Pouder, James, obit., ii, 613.
 Powers, Daniel W., obit., ii, 614.
 Poynter, William A., port., iii, 472.
 Pratt, C. E., obit., i, 579.
 Pratt, Enoch, obit., i, 579.
 Pratt, N. W., obit., i, 580.
 Precious metals, i, 461.
 Precipitation, i, 469; ii, 515.
 Prehistoric canoe, illustration, iii, 14; implements, illustration, 14; ladder, illustration, 14.
 Prentiss, A. N., obit., i, 580.
 Presbyterians, i, 656; ii, 690; iii, 650.
 Presidential canvass of 1896, i, 666.
 President's message, the, i, 147; of 1896, ii, 152; iii, 143.
 Preston, Margaret Junkin, obit., ii, 614.
 Prestwich, Sir Joseph, obit., i, 611.
 Frey, T. W., obit., ii, 645.
 Price, Bartholomew, obit., iii, 600.
 Prince Edward Island, ii, 700; iii, 659.
 Prize fighting, i, 811.
 Prizes, astronomical, i, 53.
 Processes, new, i, 118; ii, 464; iii, 116.
 Proctor, Joseph, obit., ii, 614.
 Prohibition, in Maine, ii, 497; and temperance, in Canada, iii, 100.
 Prohibitory law in Dakota, i, 589; in North Dakota, iii, 615.
 Propagation Society, the, i, 11; ii, 12; iii, 5.
 Protestant Congress, iii, 12.
 Protestant Episcopal Church in the United States, i, 673; ii, 700; iii, 660.
 Psychology, experimental, i, 675.
 Public lands, i, 750.
 Public lands in Nebraska, i, 504.
 Pulford, John, obit., i, 580.
 Pullman, George M., obit. and port., ii, 614.
 Pulszky, F. A., obit., ii, 645.
 Purvis, Robert, obit., iii, 563.
 Putnam, F. W., port., iii, 24.
 Putnam, Mrs. Mary T. S., obit., iii, 563.
 Putnam, Israel, ii, 502.
 Fuvis de Chavannes, Pierre, obit., iii, 600.
 Quain, Richard, obit., iii, 600.
 Quebec, i, 677; ii, 702; iii, 663.
 Quechmictopican, ruins of, ii, 20.
 Queensland, i, 60; ii, 62; iii, 63.
 Quint, A. H., obit., i, 580.
 Quintard, C. T., obit. and port., iii, 563.
 Quirigua, ruins of, i, 18.
 Quito, view of, iii, 234.
 Quivira, ii, 835.
 Radcliffe College, i, 832.
 Railroads, i, 283; ii, 815; in the United States, i, 757; ii, 787.
 Railway service in the United States, ii, 703.
 Rains, G. W., obit., iii, 564.
 Ramsdell, George A., port., ii, 550.
 Randolph, A. D. F., obit., i, 580.
 Randolph-Macon Woman's College, i, 833.
 Rangers in Texas, i, 730.
 Rankine, James, obit., i, 581.
 Rasmussen, Feder, A., obit., iii, 564.
 Rawlinson, Robert, obit., iii, 600.
 Raymond, Minor, obit., ii, 614.
 Read, J. M., obit., i, 581.
 Reciprocity with France, iii, 734.
 Rector, J. B., obit., iii, 564.
 Reeder, H. J., obit., iii, 564.
 Reform Committee in South Africa, trial of, i, 108.
 Reform League, the Church, ii, 14.
 Reformed Churches, i, 679; iii, 665; Alliance of, i, 681.
 Reformed Church in America, ii, 708.
 Reformed Episcopal Church, ii, 709.
 Reffracting, iii, 666.
 Regicide attempted, in Italy, ii, 424.
 Reid, John C., obit., ii, 614.
 Reid, Samuel Chester, obit., ii, 615.
 Reilly, W. M., obit., i, 581.
 Reimeny, Edouard, obit., iii, 564.
 Reinhart, C. S., obit., i, 581.
 Reinkens, J. H., obit., i, 611.
 Religion, i, 782.
 Renier, Antonio, obit., iii, 564.
 Renouf, Peter Le Page, obit., ii, 645.
 Reservations in Oregon, i, 627; in Montana, 497; Indian, 667.
 Reservoir sites, ii, 197.
 Respiration, i, 646; ii, 679; iii, 637.
 Revenue-cutter service, United States, ii, 710.
 Revenue law, the war, iii, 165.
 Revolution, attempted, in Peru, i, 634.
 Reynolds, Sir J. R., obit., i, 611.
 Rhind, Alexander C., obit. and port., ii, 615.
 Rhode Island, i, 682; ii, 714; iii, 674; new Capitol, ii, 715.
 Rice, William, obit., ii, 615.
 Richards, David, obit., ii, 615.
 Richards, Dexter, obit., iii, 564.
 Richards, M. H., obit., iii, 564.
 Richards, Sir G. H., obit., i, 611.
 Richards, De Forest, port., iii, 839.
 Richards, William A., port., ii, 827.
 Richardson, W. A., obit., i, 582.
 Richebourg, J. E., obit., iii, 600.
 Richmond, Virginia, iii, 834.
 Richmond, George, obit., i, 612.
 Richmond, G. B., obit., iii, 565.
 Richter, Albrecht, obit., ii, 645.
 Ricker, Joseph, obit., ii, 616.
 Ricord, Frederick W., obit., ii, 616.
 Riehl, W. H., obit., ii, 646.
 Ring nebula, a new, i, 51.
 Ripley, Philip, obit., i, 583.
 Ritualistic crisis, the, iii, 8.
 Rivier, A. P. O., obit., iii, 600.
 Roads, good, ii, 554; in Arkansas, i, 29; in Alabama, iii, 4.
 Roanoke Island monument, i, 535.
 Roberts, C. W., obit., iii, 565.
 Roberts, J., obit., iii, 565.
 Roberts, William R., obit., ii, 616.
 Robertson, Thomas J., obit., ii, 616.
 Robertson, W. H., obit., iii, 565.
 Robeson, George M., obit., ii, 616.
 Robinson, F. T., obit., iii, 566.
 Robinson, G. D., obit., i, 582.
 Robinson, John Cleveland, obit., ii, 616.
 Robinson, J. M., obit., i, 582.
 Robinson, Theodore, obit., i, 582.
 Roby races, the, i, 387.
 Rocco, Enrico M. della, obit., ii, 646.
 Roche, J. A., obit., iii, 566.
 Rockford College, i, 834.

- Rogers, John R., port., ii, 814.
 Rogers, W. A., obit., iii, 566.
 Rohlf, Gerhard, obit., i, 612.
 Rollins, Alice W., obit., ii, 617.
 Rollins, Daniel G., obit., ii, 617.
 Rollins, F. W., port., iii, 483.
 Roman Catholic Church, i, 686; ii, 717; iii, 677.
 Romero, Don Matias, obit. and port., iii, 567.
 Röntgen rays, i, 690.
 Röntgen, Wilhelm Conrad, sketch and port., i, 690.
 Rooker, M. H., obit., iii, 567.
 Rooker, T. N., obit., iii, 567.
 Roosevelt, Blanche, obit., iii, 567.
 Roosevelt, Theodore, port., iii, 492.
 Roper, S. H., obit., i, 582.
 Rops, Félicien, obit., iii, 601.
 Roquette, Otto, obit., i, 612.
 Rosebery, resignation of Lord, i, 338.
 Roscrans, W. S., obit. and port., iii, 567.
 Rosmead, Lord, obit., ii, 646.
 Ross, A. M., obit., ii, 647.
 Ross, Christian K., obit., ii, 617.
 Ross, L. S., obit., iii, 568.
 Rossi, Cesare, obit., iii, 601.
 Rossi, Ernesto, obit., i, 618.
 Roumania, i, 695; ii, 720; iii, 682; Commission of the Danube, i, 696.
 Rousseau, Armand, obit., i, 612.
 Rowe, Nicholas, obit., i, 583.
 Rublee, Horace, obit., i, 583.
 Ruggiero, Gaetano, obit., i, 612.
 Ruggles, Daniel, obit., ii, 617.
 Ruggles, Edward R., obit., ii, 618.
 Rulison, Nelson S., obit., ii, 618.
 Runyon, Theodore, obit. and port., i, 583.
 Ruskin, Fenn, ii, 757.
 Russell, Daniel L., port., ii, 569.
 Russell, John H., obit. and port., ii, 618.
 Russell, William C., obit., i, 583.
 Russell, W. E., obit. and port., i, 584.
 Russia, i, 696; ii, 722; iii, 688; revolt in Central Asia, 689; Emperor's peace proposition, 688.
 Ryan, S. V., obit., i, 584.
- Sacred Mission, Society of, iii, 6.
 Sagasta, P. Mateo, port., ii, 733.
 Sage, G. R., obit., iii, 568.
 Sage, H. W., obit., ii, 618.
 St. Martin, Vivien, obit., ii, 647.
 Salpointe, J. B., obit., iii, 569.
 St. Paul, homes of, iii, 457.
 Salvador, i, 700; ii, 726; iii, 689; rebellion, 689.
 Samoa, iii, 690.
 Sampson, W. T., sketch and port., iii, 690.
 Samson, G. W., obit., i, 584.
 Sanfelice di Acquavella, obit., ii, 647.
 San José scale, iii, 422.
 San Juan, Porto Rico, full-page illustration, iii, 646; bombardment, 754.
 Santiago de Cuba, Society of the Army of, iii, 691.
 Santiago, Spanish fleet at, iii, 754; military campaign, 758.
 Santo Domingo, i, 700; ii, 727; iii, 691.
 Sarony, Napoleon, obit., i, 584.
 Sartain, John, obit. and port., ii, 619.
 Sassoon, Sir A. A. D., obit., i, 612.
 Saturn's rings, i, 47.
 Sault Ste. Marie, lock at, i, 485.
 Say, J. B. L., obit., i, 613.
 Sayers, Joseph D., port., iii, 722.
 Scanlan, W. J., obit., iii, 569.
 Schaeffer, C. A., obit., iii, 569.
 Schaeffer, C. W., obit., i, 584.
 Schley, W. S., sketch and port., iii, 692.
- Schumann, Clara, obit., i, 613.
 Schuyler, Montgomery, obit., i, 585.
 Science, Associations for the Advancement of, i, 30; ii, 31; iii, 24.
 Scofield, Edward, port., ii, 825.
 Scott, John, obit., i, 585.
 Scott-Siddons, Mary F., obit., i, 613.
 Sculptured head, Mexican, illustration, ii, 21.
 Sea birds, protection for, ii, 99.
 Seal fisheries, i, 749; ii, 789.
 Secession ordinance, signers of in South Carolina, iii, 699.
 Sedgwick, John, obit., ii, 619.
 Sée, Germain, obit., i, 614.
 Seidl, Anton, obit., iii, 569.
 Seguin, E. C., obit., iii, 569.
 Sericulture, iii, 813.
 Servia, i, 701; ii, 727; iii, 692.
 Settlements, social, iii, 694.
 Seuter, De W. C., obit., iii, 570.
 Seward, Clarence A., obit., ii, 619.
 Sexton, Samuel, obit., i, 585.
 Sexton, W., obit., iii, 570.
 Seymour, Augustus S., obit., ii, 619.
 Seymour, E. C., obit., i, 585.
 Shafter, W. R., sketch and port., iii, 696.
 Shah of Persia, the late, port., i, 632.
 Shallenberger, O. B., obit., iii, 570.
 Sharpe, Frieda S., obit., iii, 570.
 Shaw, Elijah, obit., i, 585.
 Shaw, L. M., port., iii, 338.
 Shaw, Robert G., ii, 502.
 Sheep and wool in Montana, i, 496.
 Shelby, Joseph O., obit., ii, 619.
 Sheldon, C. H., obit., iii, 570.
 Sheldon, Edward A., obit., ii, 619.
 Sheldon, I. E., obit., iii, 570.
 Shellabarger, Samuel, obit., i, 585.
 Sheridan, G. A., obit., i, 585.
 Sherman, John, sketch and port., ii, 775.
 Sherwood, Sarah L., obit., i, 586.
 Shipman, W. D., obit., iii, 570.
 Shoemaker, Charles F., port., ii, 712.
 Shoup, F. A., obit., i, 586.
 Showalter, J. W., obit., iii, 570.
 Shurtleff, W. S., obit., i, 586.
 Siam, i, 702; ii, 728; iii, 697.
 Siboney, Cuban troops at, illustration, iii, 759.
 Siciliano di Rende, Camillo, obit., ii, 647.
 Siegfried, J. K., obit., i, 586.
 Sierra Leone, revolt in, iii, 828.
 Signals, night, ii, 729; colored plate, 730; holders, 2 illustrations, ii, 730.
 Silchester, discoveries at, ii, 21.
 Silk manufacture in Pennsylvania, i, 630; culture in Utah, iii, 818.
 Silliman, J. M., obit., i, 586.
 Silver. See METALLURGY.
 Simon, J. F., obit., i, 614.
 Sims, C. S., obit., i, 586.
 Singery, W. M., obit., iii, 570.
 Sirius, companion to, i, 50.
 Sirius, orbit of, ii, 51.
 Skelton, John, obit., ii, 647.
 Skerrett, J. S., obit., i, 586.
 Skilton, Julius A., obit., ii, 620.
 Smith, A. B., obit., i, 587.
 Smith, Charles E., note and port., iii, 729.
 Smith, Edward C., port., iii, 820.
 Smith, G. W., obit., i, 587.
 Smith, J. E. A., obit., i, 587.
 Smith, J. P., obit., iii, 571.
 Smith, Job Lewis, obit., ii, 620.
 Smith, John Eugene, obit., ii, 620.
 Smith, Justin A., obit., i, 587.
 Smith, Richard, obit., iii, 571.
 Smith, Robert B., port., ii, 535.
 Smith, Russell, obit., i, 587.
 Smith, Walter D., obit., i, 587.
 Smith, William H., obit., i, 588.
 Smith College, i, 835.
- Soap, natural, i, 841.
 Social reform, reaction against in Germany, i, 821.
 Socialistic trial in Berlin, i, 820.
 Soldiers' monuments in Iowa, i, 360.
 Somaliland, iii, 233; operations in, ii, 3; Italian, 289; a native of, illustration, iii, 232.
 Sonoma, celebration at, i, 92.
 Soudan, i, 258, 820.
 Soudan expedition, the, ii, 294.
 South Africa, i, 97; ii, 108; iii, 101.
 South African Republic, i, 99; iii, 104.
 South Australia, i, 62; ii, 63; iii, 63.
 South Carolina, i, 702; ii, 731; iii, 697; dispensary, i, 704.
 South Dakota, i, 706; ii, 734; iii, 701; constitutional amendments, 703.
 Southern Baptist Convention, i, 75.
 South Portland, meeting at, i, 448.
 Spain, i, 708; ii, 735; iii, 704; bread riots, 705.
 Spalding, Elbridge G., obit., ii, 620.
 Spangler, Andrew M., obit., ii, 620.
 Spanish sentry, illustration, ii, 260.
 Spanish soldiers breakfasting, illustration, ii, 264.
 Spaulding, J. P., obit., i, 588.
 Spectra, photographing of, iii, 54.
 Spectroscope, the largest, ii, 54.
 Spectroscopy, ii, 49.
 Spectrum of Alpha Aquilae, i, 50.
 Speech, measurements of, i, 676.
 Spencer, Herbert, sketch and port., i, 711.
 Spencer, J. A., obit., iii, 571.
 Sphinx, cap of the, illustration, i, 24.
 Spuller, Eugène, obit., i, 614.
 Stanley, W. E., port., iii, 351.
 Stansfeld, James, obit., iii, 601.
 Stark, Sarah, obit., iii, 571.
 Starkweather, Mary A. T., obit., ii, 620.
 Stars, double, i, 48; iii, 55; variable, i, 48; ii, 51; iii, 52; having dark companions, i, 49; new, 49; with peculiar spectra, 49; motion of, ii, 50; iii, 52; new double, ii, 50; showers, iii, 54.
 Statues, unveiled, i, 630.
 Stearns, O. P., obit., i, 588.
 Steel. See METALLURGY.
 Steel buildings, iii, 707.
 Steenstrup, Japetus, obit., ii, 647.
 Steers, J. R., obit., i, 588.
 Steinway, William, obit., i, 588.
 Stela of Merneptah, i, 22.
 Stellar systems, ii, 49.
 Stephan, Dr. von, obit., ii, 647.
 Stephens, Lon V., port., ii, 533.
 Sterne, Baron, von Ehrenstein, obit., ii, 647.
 Stetson, John, obit., i, 588.
 Stevens, T. H., obit. and port., i, 589.
 Stevenson, John D., obit., ii, 621.
 Stevenson, memorial fountain, illustration, ii, 322.
 Stills destroyed, ii, 11.
 Stirling, Arthur, obit., iii, 601.
 Stocks in 1896, i, 280; in 1897, ii, 813; iii, 261.
 Stockton, R. F., obit., iii, 572.
 Stokes, Ellwood H., obit., ii, 521.
 Stone, A. B., obit., i, 589.
 Stone, W. A., port., iii, 618.
 Stone implements, ii, 24.
 Storage batteries, ii, 743.
 Storrow, James J., obit., ii, 621.
 Stoughton, John, obit., ii, 648.
 Stowe, Harriet B., sketch and port., i, 715.
 Stranahan, J. S. T., obit., iii, 572.
 Street railroads, ii, 739.
 Strike at Leadville, Col., i, 134; ii, 142; a labor in Georgia, 344.
 Sturtevant, E. L., obit., iii, 572.

- Substances, new, i, 116; ii, 124; iii, 118.
 Suez Canal, ii, 292.
 Sugar conference, iii, 78.
 Sun, the, i, 46; ii, 49; iii, 50.
 Sunday-School Convention, International, i, 720; the World's, iii, 709.
 Supreme Court, U. S., decisions, ii, 792; iii, 775.
 Surety companies, ii, 750.
 Sutro, A. H. J., obit., iii, 572.
 Swain, David G., obit., ii, 621.
 Swaziland, ii, 119; iii, 107.
 Sweden and Norway, i, 720; ii, 752; iii, 709.
 Swedes' church, old, iii, 218.
 Sweeter, Moses F., ii, 621.
 Switzerland, i, 723; ii, 754; iii, 712.
 Sylvester, J. J., obit., ii, 648.
- Taillade, P. F., obit., iii, 602.
 Tai-Wen-Kun, obit., iii, 602.
 Talcot, D. S. obit., i, 589.
 Taliaferro, W. B., obit., iii, 573.
 Talienwan, leased, iii, 126.
 Tanner, J. R., port., iii, 825.
 Tappen, A. B., obit., i, 589.
 Tariff act, the Dingley, i, 207.
 Tschereau, E. A., obit., iii, 602.
 Tasman Peninsula, view in the, i, 56.
 Tasmania, i, 63; ii, 64; iii, 63.
 Tavaststerna, C. A., obit., iii, 602.
 Taylor, Robert L., port., ii, 757.
 Tcherevin, Gen., obit., i, 615.
 Tohernaieff, M. G., obit., iii, 602.
 Tchouhadjan, Dicran, obit., iii, 603.
 Teck, Mary A. W. E., Duchess of, obit., ii, 648.
 Teeth ornamented with jadeite, illustration, i, 17.
 Telegraphy, wireless, iii, 718.
 Telescopes, iii, 57.
 Temperance legislation in New Brunswick, i, 513.
 Temperance Society, Church of England, addressed by Archbishops of Canterbury and York, ii, 15.
 Temple, at Quechmictopican, illustration, ii, 20; Chinese, illustration, iii, 128.
 Temple, Frederick, sketch and port., i, 725.
 Tennessee, i, 726; ii, 756; iii, 718; centennial, i, 727; ii, 759; boundary question, iii, 289.
 Tenney, Asa W., obit., ii, 622.
 Tennyson, Frederick, obit., iii, 603.
 Tepoztlan, temple of, i, 18.
 Terry, William R., obit., ii, 622.
 Texas, i, 729; ii, 764; iii, 722; Rangers, ii, 766; proposed constitutional amendments, 767.
 Textile Manufacturers' Association, i, 811.
 Thatcher, Moses, trial, ii, 807.
 Thayer, A. W., obit., ii, 622.
 Thayer, W. M., obit., iii, 578.
 Themptander, Oskar R., obit., ii, 648.
 Theological Seminary, Union, i, 811.
 Thomas, C. L. A., obit., i, 615.
 Thomas, C. S., port., iii, 135.
 Thomas, Henry G., obit., ii, 622.
 Thompson, Daniel G., obit., ii, 622.
 Thompson, William, obit., ii, 622.
 Thompson, Wordsworth, obit., i, 589.
 Thorne, Edwin F., obit., ii, 623.
 Thorne, Joseph, obit., ii, 623.
 Thunderstorms, i, 470.
 Thun ministry, iii, 68.
 Tilley, Sir L. B., obit., i, 615.
 Tilton, Elizabeth R., obit., ii, 623.
 Timbermen's Association, i, 814.
 Time, unification of, ii, 53.
 Tin-plate manufacture, ii, 768.
 Tolain, Henri L., obit., ii, 648.
 Toll gates, destruction of, in Kentucky, i, 375; raids, iii, 856.
- Tomb of Osiris, iii, 16; of Amenophis, 16.
 Tome, Jacob, obit., iii, 573.
 Toner, J. M., obit., i, 590.
 Topelius, Zachris, obit., iii, 603.
 Toucey, J. M., obit., iii, 574.
 Townsend, Franklin, obit., iii, 574.
 Trans-Mississippi Exposition, iii, 249, 473; Grand Canal, view of, 252; Indian encampment, 254; life-saving exhibit, illustration, 256; map, 250.
 Transportation, i, 779.
 Treaty ports, new, i, 181.
 Treaty with Japan, i, 181.
 Trescott, W. H., obit., iii, 574.
 Trikoupiis, Charilaos, obit. and port., i, 616.
 Trinidad, ii, 820; restoration of, i, 83, 822.
 Tripp, S. D., obit., iii, 574.
 Trolley systems, ii, 739.
 Trotter, N. H., obit., iii, 574.
 Truesdale, Hiram C., obit., ii, 623.
 Trumbull, James H., obit., ii, 623.
 Trumbull, Lyman, obit. and port., i, 590.
 Tucker, James R., obit., ii, 623.
 Tucker, Joshua T., obit., ii, 623.
 Tuckerman, C. K., obit., i, 590.
 Tunisia, i, 297.
 Tunkers, i, 84.
 Tunnell, Ebe W., port., ii, 274.
 Tunner, Peter van, obit., ii, 648.
 Turkey, i, 733; ii, 769; iii, 725; dispute with, i, 89; war with Greece, ii, 875.
 Tuttle, I. H., obit., i, 590.
 Twiss, Sir Travers, obit., ii, 648.
 Tyler, J. Hoge, ii, 811.
 Tyler, William S., obit., ii, 624.
 Tyng, S. H. obit., iii, 574.
- Uganda, ii, 287; iii, 280; view of royal residence, 231.
 "Uncle Tom's Cabin," history of, and house in which it was written, i, 717.
 Underhill, E. F., obit., iii, 574.
 Unitarian Churches, i, 747; ii, 773; iii, 727.
 United Brethren Church, i, 748; ii, 774.
 United Evangelical Church, ii, 775; iii, 728.
 United States of America, i, 748; ii, 775; iii, 729; possessions, 773; war record, 777.
 United States census, i, 775.
 Universalist churches, i, 795; ii, 802; iii, 815.
 Upington, Thomas, obit., iii, 603.
 Uranus, ii, 52; ellipticity of, i, 47.
 Uruguay, i, 795; ii, 802; revolution in, i, 796; ii, 803; iii, 815; coup d'état and revolt, 816.
 Utah, i, 796; ii, 804; semicentennial celebration, i, 797; ii, 806; iii, 817; sericulture in, 818; irrigation, 819.
- Vacherot, Etienne, obit., ii, 649.
 Valparaiso harbor, view of, iii, 121.
 Van, outbreak at, i, 737.
 Vanderbilt, Maria L., obit., i, 590.
 Van Horn, J. J., obit., iii, 575.
 Van Ingen, Henry, obit., iii, 575.
 Van Wyck, Robert A., sketch and port., ii, 808.
 Vase from a tomb in Copan, illustration, i, 17.
 Vassar College, i, 836.
 Vaughan, C. J., obit., ii, 649.
 Vautier, Benjamin, obit., iii, 603.
 Veazey, W. G., obit., iii, 575.
 Venezuela, i, 800; ii, 809; boundary commission, i, 749, 800; disputed territory, 159, 803; diplomatic correspondence, 804; arbitration treaty, 806; ii, 809; iii, 819.
- Venus, ii, 52; iii, 50; rotation of, i, 46.
 Verbeck, G. F., obit., iii, 575.
 Vermont, i, 807; ii, 810; Central Railroad, i, 807; monument to first Governor, 808; boatable waters in, 808; iii, 820.
 Veterans' preference act, in Massachusetts, i, 456.
 Victoria, B. C., view of new Government Building, iii, 88.
 Victoria, colony of, i, 60; ii, 62; iii, 63.
 Vienna municipal election, i, 69.
 Villa Clara, illustration, ii, 258.
 Villiers, C. P., obit., iii, 603.
 Virginia, i, 810; ii, 811; boundary, i, 585; iii, 422, 822.
 Volunteers of America, ii, 813.
 Vorhees, Daniel W., obit. and port., ii, 624.
 Voorhees, F. M., port., iii, 487.
 Voters, statistics of, in Michigan, i, 483.
- Wagner, Jacob, obit., iii, 575.
 Walcutt, C. C., obit., iii, 575.
 Wales, G. W., obit., i, 591.
 Wales, Leonard E., obit., ii, 624.
 Walke, Henry, obit. and port., i, 591.
 Walker, Francis A., obit. and port., ii, 624.
 Wall paintings of Mitla, i, 16.
 Walls, ancient, iii, 14.
 Wallace, William A., obit., i, 591.
 Walpole, Spencer, obit., iii, 604.
 Walthall, E. C., obit., iii, 575.
 War records of Maryland, i, 453.
 Ward, Hamilton, obit., iii, 576.
 Wardrop, D. W., obit., iii, 576.
 Waring, G. E., obit. and port., iii, 576.
 Warner, James M., obit., ii, 625.
 Warner, Olin L., obit. and port., i, 591.
 Warner, Samuel A., obit., ii, 625.
 Warren, N. B., obit., iii, 576.
 Warren, Willis, obit., ii, 625.
 Washington (State), i, 818; ii, 514; immigration convention, i, 613; Capitol, 814; Arbor Day, 814; iii, 825; irrigation in, 826; State Capitol, 827.
 Washington, Ella B., obit., iii, 577.
 Watervliet, N. Y., i, 527.
 Water ways in Delaware, i, 239; in Florida, 289; in Mississippi, 491; in Oregon, 625.
 Waterman, T. W., obit., iii, 577.
 Wattenbach, Wilhelm, obit., ii, 649.
 Wealth, debt, and taxation in the United States, i, 781.
 Weeks, J. D., obit., i, 593.
 Weeks, R. D., obit., iii, 577.
 Wei-Hai-Wei, leased, iii, 128.
 Weidemeyer, John W., obit., i, 593.
 Wellesley College, i, 838.
 Wells College, i, 838.
 Wells, D. A., obit. and port., iii, 577.
 Wells, Heber M., port., ii, 605.
 Wentworth, W. P., obit., i, 593.
 West Africa, ii, 815; (with a colored map) i, 815; iii, 827.
 Western Australia, i, 62; ii, 63; iii, 63.
 Westervelt, D. D., obit., i, 593.
 West Indies, i, 821; ii, 820; iii, 833.
 West, J. R., obit., iii, 579.
 Westcott, E. N., obit. and port., iii, 579.
 West Virginia, i, 824; ii, 823; iii, 835.
 Weston, Byron, obit., iii, 579.
 Wheatcroft, Nelson, obit., ii, 625.
 Wheeler, C. H., obit., i, 593.
 White, G. G., obit., iii, 579.
 White, Gleeson, obit., iii, 604.
 White, Sarepta C., obit., ii, 626.
 Whiting, Henry L., obit., ii, 626.
 Whitney, J. D., obit. and port., i, 593.

- Wiard, Norman, obit., i, 594.
 Wigglesworth, Edward, obit., i, 594.
 Wight, Charles C., obit., ii, 626.
 Wikoff, C. A., obit., iii, 579.
 Wilbourn, Charles E., obit., i, 594.
 Wild, John, obit., iii, 579.
 Wilkinson, M. C., obit., iii, 579.
 Willard Colony, the, i, 535.
 Willard, Frances E., obit. and port., iii, 579.
 Willard, Joseph, obit., ii, 626.
 Willems, Pierre, obit., iii, 604.
 Willey, Austin, obit., i, 594.
 Williams, Charlotte L., obit., ii, 626.
 Williams, J. S., obit., iii, 580.
 Williams, Nelson G., obit., ii, 626.
 Willis, Albert S., obit., ii, 626.
 Wilson, Anne R., obit., i, 595.
 Wilson, Grenville D., obit., ii, 626.
 Wilson, James, port., ii, 778.
 Wilson, T. D., obit., i, 595.
 Winans, William L., obit. and port., ii, 626.
 Winchelsea, Finch-Hatton, obit., iii, 604.
 Winds, i, 470; ii, 516; iii, 430.
 Windward Islands, i, 828; ii, 820.
 Wingfield, J. H. D., obit., iii, 580.
 Winlock, William C., obit., i, 595.
 Winnipeg, iii, 420.
 Winsor, H. J., obit., i, 595.
 Winsor, Justin, obit. and port., ii, 627.
 Wire glass, ii, 824.
 Wireless telegraphy, iii, 718.
 Wirth, Franz, obit., ii, 649.
 Wisconsin, i, 825; ii, 825; historical library, i, 826; semicentennial celebration, 826; reapportionment, 826; iii, 837; semicentennial celebration, 839.
 Wise, Daniel, obit., iii, 580.
 Wiswell, Rebecca, obit., ii, 627.
 Wolcott, Roger, port., ii, 501.
 Wolf tax, iii, 515.
 Wolter, Countess O'Sullivan, obit., ii, 649.
 Wolves, bounty on, iii, 841.
 Woman's College of Baltimore, i, 839.
 Woman's suffrage in Connecticut, i, 224.
 Women's colleges in the United States, i, 827.
 Wood, De Volsen, obit., ii, 627.
 Woodbury, C. L., obit., iii, 580.
 Woodruff, Wilford, obit., iii, 581.
 Woods, Samuel, obit., ii, 627.
 Woodson, Silas, obit., i, 595.
 Woodward, J. B., obit., i, 595.
 Worden, John L., obit. and port., ii, 627.
 Wormley, Theodore G., obit., ii, 628.
 Worthen, William E., obit., ii, 628.
 Wright, C. B., obit., i, 581.
 Wright, G. G., obit., i, 596.
 Wylie, T. W. J., obit., iii, 581.
 Wyoming, i, 840; ii, 827; land grants, 828; iii, 839.
 Xiquena, José, obit., iii, 604.
 X rays, i, 690.
 Yachting, i, 842.
 Yandell, D. W., obit., iii, 581.
 Yaqui disturbances, i, 482.
 Yaqui war, ii, 526.
 Yellow fever, ii, 532, 765.
 Yellowstone Park, iii, 515.
 Yemen revolt, in, iii, 727.
 Yerkes Observatory, i, 51; ii, 54.
 Yerkes, Stephen, obit., i, 596.
 Yon, Edmund C., obit., ii, 650.
 Yosemite Park, report on, iii, 94.
 Young, P. M. B., obit., i, 596.
 Young, William C., obit., i, 596.
 Young Men's Christian Associations, iii, 841.
 Yukon district, iii, 842.
 Zachoa, J. C., obit., iii, 581.
 Zanzibar, i, 251; ii, 286; iii, 229.
 Ziegler, Henry, obit., iii, 581.
 Zinc, iii, 432.
 Zodiacal light, ii, 58.
 Zoological park in New York city, ii, 563.
 Zululand, ii, 112.

STANFORD UNIVERSITY LIBRARIES · STANFORD UNIVERSITY LIBRARIES ·
UNIVERSITY LIBRARIES · STANFORD UNIVERSITY LIBRARIES · STANFORD UNIV
RD UNIVERSITY LIBRARIES · STANFORD UNIVERSITY LIBRARIES · STANFORD
ITY LIBRARIES · STANFORD UNIVERSITY LIBRARIES · STANFORD UNIVERSITY
S · STANFORD UNIVERSITY LIBRARIES · STANFORD UNIVERSITY LIBRARIES
ARIES · STANFORD UNIVERSITY LIBRARIES · STANFORD UNIVERSITY LIBRARIES
ANFORD UNIVERSITY LIBRARIES · STANFORD UNIVERSITY LIBRARIES · STANFORD
UNIVERSITY LIBRARIES · STANFORD UNIVERSITY LIBRARIES · STANFORD UNIV
RD UNIVERSITY LIBRARIES · STANFORD UNIVERSITY LIBRARIES · STANFORD
ITY LIBRARIES · STANFORD UNIVERSITY LIBRARIES · STANFORD UNIVERSITY
S · STANFORD UNIVERSITY LIBRARIES · STANFORD UNIVERSITY LIBRARIES
ARIES · STANFORD UNIVERSITY LIBRARIES · STANFORD UNIVERSITY LIBRARIES
ANFORD UNIVERSITY LIBRARIES · STANFORD UNIVERSITY LIBRARIES · STANFORD
UNIVERSITY LIBRARIES · STANFORD UNIVERSITY LIBRARIES · STANFORD UNIV
RD UNIVERSITY LIBRARIES · STANFORD UNIVERSITY LIBRARIES · STANFORD
LIBRARIES · STANFORD UNIV

UNIVERSITY LIBRARIES · STANFORD UNIVERSITY LIBRARIES · STANFORD

A72

LIBRARIES · STANFORD UNIVERSITY LIBRARIES · STANFORD UNIVERSITY

3rd Ser

ERSITY LIBRARIES · STANFORD UNIVERSITY LIBRARIES · STANFORD UN

3
1898

RARIES · STANFORD UNIVERSITY LIBRARIES · STANFORD UNIVERSITY LI

ANFORD UNIVERSITY LIBRARIES · STANFORD UNIVERSITY LIBRARIES · ST

STANFORD UNIVERSITY LIBRARIES · STANFORD UNIVERSITY LIBRARIES

UNIVERSITY LIBRARIES · STANFORD UNIVERSITY LIBRARIES · STANFORD

LIBRARIES · STANFORD UNIVERSITY LIBRARIES · STANFORD UNIVER

ERSITY LIBRARIES · STANFORD UNIVERSITY LIBRARIES · STANFORD

RARIES · STANFORD UNIVERSITY LIBRARIES · STANFORD UNIVERSITY LI

ANFORD UNIVERSITY LIBRARIES · STANFORD UNIVERSITY LIBRARIES · S

STANFORD UNIVERSITY LIBRARIES · STANFORD UNIVERSITY LIBRARIES

UNIVERSITY LIBRARIES · STANFORD UNIVERSITY LIBRARIES · STANFORD

LIBRARIES · STANFORD UNIVERSITY LIBRARIES · STANFORD UNIVERSITY

ERSITY LIBRARIES · STANFORD UNIVERSITY LIBRARIES · STANFORD UN

RARIES · STANFORD UNIVERSITY LIBRARIES · STANFORD UNIVERSITY

